

**G.B. 8/23/17 Agenda Item A-1**

**MARIN EMERGENCY RADIO AUTHORITY**

c/o Novato Fire Protection District  
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**GOVERNING BOARD**

**Minutes of June 28, 2017 Regular Meeting**

**DRAFT: 7/24/17**

**Call to Order and Introductions**

The meeting was called to order by President Pearce on June 28, 2017 at 3:36 p.m. at the Novato Fire Protection District Administration Office, Heritage Conference Room, 95 Rowland Way, Novato, CA 94945. Self-introductions followed.

**Governing Board Members & Alternates Present:**

Town of Corte Madera	Dan Reese (Alternate)
Town of Fairfax	David Cron (Alternate)
City of Larkspur	Scott Shurtz
City of Mill Valley	Angel Bernal
City of Novato	Pam Drew
Town of Ross	Tom Gaffney
Town of Anselmo	Doug Kelly
City of San Rafael	Bob Sinnott (Alternate)
County of Marin	Matthew Hymel
City of Sausalito	Bill Fraas (Alternate)
Town of Tiburon	David Hutton (Alternate)
Bolinas Fire Protection District	Anita Tyrrell-Brown
Inverness Public Utility District	Jim Fox
Kentfield Fire Protection District	Ron Naso (Alternate)
Marin Community College District	Martin Langeveld (Alternate)
Marin Transit	Amy Van Doren
Marin Municipal Water District	Don Wick
Marinwood Community Services District	Tom Roach
Novato Fire Protection District	Steve Metcho, L.J. Silverman (Alternate)
Tiburon Fire Protection District	Richard Pearce
Central Marin Police Authority	Michael Norton

**Governing Board Member Agencies Absent:**

City of Belvedere  
Ross Valley Fire Department  
Southern Marin Fire Protection District  
Stinson Beach Fire Protection District

**Staff Present:**

MERA Executive Officer	Maureen Cassingham
MERA General Counsel	Trisha Ortiz
MERA Deputy Executive Officer - Next Gen Project	Dave Jeffries
MERA Operations Officer	Pat Echols
MERA Administrative Assistant – Next Gen Project	Alex Anderson
Communications Engineering Services Manager	Richard Chuck
Recording Secretary	Lauren Pallas

**Guests Present:**

Federal Engineering Project Manager	Denis Marin
County Director of Public Works	Raul Rojas
County Deputy Fire Chief	Mark Brown
Motorola Solutions, Inc.	Kouresh Mostashari
Motorola Solutions, Inc.	Rodney Hughes

A. Consent Calendar

All matters on the Consent Calendar are to be approved with one motion unless a Member of the Governing Board or the public requests that separate action be taken on a specific item:

- 1) Minutes from May 10, 2017 Governing Board Regular Meeting
- 2) Report No. 55 on Strategic Plan Implementation
- 3) Update on Non-Member MERA System User Letters of Agreement (LOAs)

*M/S/P Roach/Hymel to approve Consent Calendar Items 1-3 as presented.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

B. Executive Officer's Report – (Cassingham)

- 1) Report No. 28 on Next Gen System Project – (Jeffries)
  - Discussion of Current and Next Gen System Disaster Mode Operations.

Jeffries presented his report noting the Next Gen Project's issues being worked on. Fire Station Alerting (FSA) and radio packages will be handled as separate agenda items. The members' radio inventory is being developed to verify the numbers of radios on the System on the date the Parcel Tax passed. It is going slower than expected. Mobiles and consolettes are being surveyed as well. The equipment order will be based on these inventories.

Jeffries said they are working with Motorola on an Equipment Fair in late-July. Staff is still working on bandwidth issues that will require remote dispatch sites to upgrade their connections. This matter supports FSA as well. Fire and Law Committees have been working on talkgroup templates. This is the layout that goes into the radios. Completion is scheduled for September 1. Some current System channels will be going away due to the change in frequencies. These channels must work together to ensure interoperability. From this, other specialty templates, like Public Works, will be created.

Jeffries noted work on the cutover plan with Motorola has begun. This is essential to maintaining current System operations while bringing the new System up. We will be figuring out which talkgroups will be needed on which System to maintain interoperability as well as to facilitate the movement of one or two agencies at a time to the new System. Path surveys for the microwave system should be completed by the end of this week. This is a critical step by Motorola and Nokia to identify terrain, foliage or anything else that might interfere with these paths.

Jeffries reviewed the next critical step of site development, including environmental reviews. The RFP has been issued by DPW to start the environmental process. An RFP for construction will follow in the next few months for new sites and remodeling of existing sites. He reviewed the internal coordination staff and Motorola calls and meetings schedule in addition to ad hoc calls and meetings on technical issues as they arise. As an example, additional interaction has been required on the interface between Mach Alert and Intergraph CAD. He said Motorola will present a revised Project schedule by early July.

In response to a Board Member request, Jeffries said he added a section to his report on current and Next Gen System resiliency in a disaster. He reviewed prime site power backup, along with the redundancy of servers and switches, simulcast sites power, control channels back-up, talk channel fallback and antenna/combiners fallback. Fallback will permit usage but at less capacity. He said mountaintop sites are connected to a microwave loop which permits remaining site support if one site goes down.

Jeffries discussed System failure modes, including site trunking and failsoft. Several conventional channels, separate from talk groups, can support operations. Dispatch Centers can also provide backup for one another. The County also

maintains a backup Dispatch Center. All consoles have access to backup control stations if consoles go down. Additionally, there are mobile command units.

Finally, there is regional operational support strategy allowing disparate systems to be connected should we need it.

Jeffries noted, while it is not part of the current Next Gen Project, there are other redundancies that could be added like a second prime site or trunking trailer. There being no questions, there was consensus to receive and file his report.

2) Proposed Next Gen System Radio Packages – (Jeffries)

Jeffries said, since the Measure A Parcel Tax election on November 4, 2014, MERA committed to a one-for-one replacement of all radios in inventory on that date. The inventory underway will confirm those numbers per agency. His report presents radio packages that include replacement of all portables with a Model II portable, which is the predominant model in our current fleet and the basis for our Project contract. This reduces the number of radio models from 3 to 1. Mobile radio options have been reduced from 5 to 2 with additional variations for motorcycles and dual head radios.

When presenting this to the Joint Finance and Project Oversight Committees, Jeffries said that his recommendation balances cost containment and the newest life cycle radios to assure the longest service life. Reducing initial radio costs would permit the purchase of spare radios and parts which would help extend radio life. Included in his radio recommendation are additional details including numbers of batteries, belt clips and cases, ruggedization, encryption, vehicle chargers and more. Items not in these packages would be the member's expense.

Jeffries noted the portable and mobile radio upgrade option of moving to high-end dual-band radios. MERA would cover the cost of the recommended radios and requesting agencies would provide funding for the increased cost to dual band. Likewise, the increased cost of an earpiece versus a shoulder microphone would be a local agency expense. A big part of the inventory underway is to detail all the additional items that have been added. He is seeking Board adoption of the packages as proposed. An updated version of the packages, including part numbers and pricing, will be presented to the Governing Board in the fall prior to submission of the final change order to Motorola. Hughes confirmed the order must be placed at least one month ahead for shipping before year end to obtain the \$500,000 discount.

Jeffries noted the Government Code section cited in Measure A only permits equipment for police and fire. We will need to identify non-safety user equipment to be funded from other MERA reserves. The total change order will be funded from two different sources. Pearce clarified that the recommended action is

presented in the last paragraph of Jeffries' staff report. Jeffries added that inventory number discrepancies must be reconciled before the order is placed. Inventories will be shared with members at the Equipment Fair, which will permit time to finalize radio and additional equipment numbers and assure accuracy. In response to Pearce, Jeffries said upgrades will be given a window to be finalized. Accessories not part of the packages will be a local agency issue.

Gaffney asked what was budgeted for radios. Jeffries said funding is in the Contract for Base Model 2. Cassingham clarified that funding for non-public safety equipment would come from MERA's Replacement Reserve. Gaffney asked for the non-safety equipment cost. Jeffries said the inventory will fine tune this amount. Gaffney said the radio costs are one of the largest budget categories. Jeffries said the cost of 3,000 radios is in the Motorola contract. Accessory costs may increase, but other parts of the order costs may decrease.

In response to Hymel about covering the added costs of dual band radios, Jeffries said the agencies would pick up the extra costs. Hymel confirmed that the recommended radio packages are within the Project budget. Gaffney said if we went with the higher priced model, it would add \$6M to the budget. Jeffries responded that agencies wanting the higher priced model will pay the difference. In response to Metcho, Jeffries said the dispatch centers will have to do their own inventories. Pearce encouraged completion of the member inventories as soon as possible.

*M/S/P Kelly/Gaffney to adopt the recommended radio packages as defining the one-for-one replacement.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

3) Discussion of MERA Operations Officer Transition

Cassingham said this is a discussion item triggered by Public Works Director Rojas' announcement of the retirement of County Assistant Public Works Director and MERA Operations Officer Echols, effective late-November or early-December of this year. She said Echols had been a fantastic asset to MERA and the Next Gen Project. She said the announcement was bittersweet and wished Echols well in his next chapter.

Cassingham said it was appropriate to get Board input on this transition of key personnel, noting likewise Denis Marin's and Jeffries' key roles in Next Gen. She said Rojas will be recruiting with the intent to identify Echols' replacement in a

timeline that will ideally permit two months of shadowing Echols. Pearce said his first preference was for Echols to stay. He asked for Rojas' recruitment timeline and how MERA can help or be involved in the process.

Rojas said a recruiting firm has been hired and his goal is to fill the position by early September to permit 2 months with Echols. He invited MERA to participate on the interview panels. He asked for a volunteer's name to be emailed to him. While MERA is not the position's only assignment, it is a big part of the duties. Pearce thanked him for the offer and we will provide the volunteer. He thanked Echols for all his service.

4) Proposed License Agreement between MERA and U.S. Department of Justice, Federal Bureau of Investigation (FBI) – Big Rock Ridge Site

Cassingham said Echols presented this request to the Board on May 10. The Board approved the request in concept and directed development of this Agreement. The request was for use of one SRU circuit on the MERA Microwave System at Big Rock Ridge. She thanked Ortiz for developing the License Agreement, along with DPW and County Real Estate for their respective input. Cassingham said the FBI has signed the Agreement and MERA will provide them with electronic funds transfer information for the monthly license fee. In response to Van Doren's inquiry about prior relationship with the FBI, Cassingham said, to her knowledge, there had been none. Jeffries said other requests like this for microwave access should be carefully vetted to assure bandwidth sufficiency. In response to Gaffney, Jeffries clarified that this license allows the FBI to use a small amount of bandwidth to transmit data on MERA's microwave.

*M/S/P Kelly/Drew to approve the Proposed License Agreement between MERA and the FBI permitting use of one Sub-Rate Unit circuit at MERA's Big Rock Ridge Tower Site.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

5) Other Information Items

None.

C. Public Hearing

1) Proposed Resolution Confirming MERA 's FY16-17 Capital Project Budgets and Expenditures from Reserves:

Fund 70032 (New Project Financing)  
Fund 70036 (Replacement)  
Fund 70038 (Next Gen Project)  
Fund 70039 (2016 Bonds)

Pearce opened the Public Hearing.

Cassingham presented the Resolution noting this action captures capital budgets and expenditures during the fiscal period in one document for the Auditor. She reviewed the actual fund balances as of July 1, 2016, and approved allocations from each of them. Expenditures from 70032 reflect costs associated with 2007 Project Note retirement. Fund 70036 allocations are for financial and administrative services, equipment replacement and repairs and the unexpended balance from FY15-16 for Mt. Barnabe fuel tank replacement.

Cassingham said the Emergency Fund balance was static with no activity to report. Fund 70038 reflects allocations from the initial collection of Measure A parcel taxes before Fund 70039 was created for the 2016 Bonds. Those allocations are for Professional Services for RGS staff time in support of the Next Gen Project. Financial and Administrative Services are broken out for NFPD staff support of Measure A activities, NBS Tax Administration and Bank fees. Other allocations include Auditing and Legal Services and Capital Outlay for DPW Project Management and the Dollar Hill Tower Reinforcement Project.

Cassingham reviewed the allocation for the 2016 Bonds Fund including the DPW Implementation Agreement, Phase I and II Federal Engineering Consulting costs, and 10% Motorola Contract progress payment. Gaffney requested that the amount of Bond proceeds of \$33M be shown as the Fund Balance.

There being no further comments, Pearce closed the Public Hearing.

*M/S/P Hymel/Langeveld to approve the Proposed Resolution No. 2017-06 Confirming MERA FY16-17 Capital Project Budgets and Expenditures for Funds 70032, 70036, 70038 and 70039, as revised.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

2) Proposed Resolution Approving the Proposed FY17-18 Capital Project Budgets and Expenditures from Reserves/

Fund 70032 (New Project Financing)  
Fund 70036 (Replacement)  
Fund 70038 (Next Gen Project)  
Fund 70039 (2016 Bonds)

Cassingham requested this Public Hearing be postponed and rescheduled to the next Governing Board meeting due to delayed receipt of the updated Project Schedule which affects timing and category of expenditures. .

D. Operations Reports – (Echols)

1) Update on Change Order Policy and Recommended Motorola Contract Contingency

Echols said the Governing Board approved this Change Order Policy on May 10 and deferred to the Finance and Project Oversight Committees for the Motorola Contract Contingency and appointment of three Oversight Committee members to serve on the Change Order Subcommittee. Cusimano, Pearce and Gaffney agreed to serve on the Subcommittee. Both Committees concurred with the staff recommendation of a \$5M contract contingency or 20% of the \$25M base contract amount. The FSA change order reduces the contingency to a net 10% or \$2.5M. In response to Kelly, Echols said all future change orders will be reported to the Governing Board after Subcommittee action.

*M/S/P Kelly/Langeveld to recommend a Motorola Next Gen Contract Contingency in the amount of \$5M to the Board of Supervisors for approval at their July 11, 2017, meeting.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

2) Proposed Radio Communications System Contract Change Order – Fire Station Alerting (FSA)

Echols said after months of exploration and negotiation, a FSA solution is being recommended. The original solution proffered by Motorola in their proposal was Mach Alert. Due to the need for more review of its capabilities, and dispatcher concerns regarding its functionality, the Mach Alert FSA was removed from the base contract scope. Staff identified the Phoenix G2 system as a possible alternative.



Echols said further study of FSA options permitted the rest of the System design to proceed. He said an ad hoc subcommittee met many times, along with numerous conference calls, to complete solution vetting, client reference checks and obtain final cost proposals to assist with solution comparison. It was felt that the Mach Alert best met MERA's needs and that the G2 system cost was excessive at \$4.3M, including the extended warranty. Mach Alert, including extended warranty, is \$2.8M.

Echols said significant time has been spent in obtaining Motorola's commitment and that of Mach Alert to product support and seamless interface with existing CAD systems, particularly with Intergraph. He reported on an extensive conference call between Mach Alert, Dispatch, Chief Brown and staff to achieve that commitment. The outcome was a high degree of confidence in the successful programming of the application interface to achieve a seamless configuration.

Echols said the FSA change order recommendation is for the Mach Alert solution at a cost of \$2,777,880, including extended warranty in the amount of \$888,000, to be presented to the Board of Supervisors. Pearce said at the June 15 Joint Committee meeting, staff was asked to further vet the value and usefulness of the SUA with Mach Alert clients, which was done. Echols said Chief Brown reached out to five clients. All who obtained the SUA were satisfied and one client that didn't is now in negotiations for an SUA. All had a great deal of satisfaction with the product and tech support.

Gaffney asked about the high pricing for the SUA, which is about 30% of the product cost. Echols confirmed other SUA client costs were about the same magnitude. In effect, for an albeit somewhat smaller system, the SUA annual cost was \$30,000 per year over the 12-year-period. Echols added that for MERA, Years 4-7 costs were \$33,000 per year and \$38,000 per year for Years 8-11 and Years 12-15 were \$40,000 per year.

Gaffney asked if this cost was coming out of Contingency. Echols said this would come from the just approved Motorola Contract Contingency. Jeffries added that the current Project budget cited \$1.2M cost for FSA and the difference would be covered by the Project budget contingency. Hymel clarified that the \$1.6M added cost would come from the \$8M budget contingency. Pearce confirmed for Metcho that the annual SUA cost would not be passed through to the members and was included in the Project cost to be covered by Measure A Funds. Pearce expressed appreciation for all the time and effort that has gone into this vetting process.

*M/S/P Roach/Van Doren to recommend approval of Motorola Contract Change Order in the amount of \$2,777,880 for inclusion of the Mach Alert Fire Station Alerting solution into the MERA Next Gen System Project to the Board of Supervisors.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

3) Recommendations on Conventional Radio Channels and Related Costs

Echols said on May 10, the Governing Board approved funding the one-time costs to relocate conventional radio resources necessitated by the Next Gen Project and elimination of some sites. Staff was asked to address preventive annual maintenance and radio replacement costs and radio equipment ownership. Preventive maintenance for conventional equipment would be done on a quarterly basis, like the MERA System maintenance, at an annual cost of \$4,500. The high reliability and durability of the conventional radios, some of which have been in service for more than 30 years, makes replacement expense guesstimates difficult. Replacement costs range from \$5,000 to \$10,000 per radio.

Echols said the Finance and Project Oversight Committees have recommended that MERA fund the annual cost of preventive maintenance with the County retaining ownership of the radios and funding replacement costs. Kelly asked what would happen to the old radios when replaced by the new. Echols said the old radios would likely be surplus. In response to Gaffney, Echols said each agency would decide. He said he would present a process at a future meeting regarding radio surplus. Kelly asked about salvage value, which Echols will include in the process.

*M/S/P Kelly/Gaffney to approve MERA's funding of quarterly prevention maintenance cost of conventional radio system resources in support of the Next Gen System.*

AYES: All  
NAYS: None  
ABSTENTIONS: None  
Motion carried.

4) Revised Next Gen System Implementation Agreement Budget

Pearce, with regard to FSA, clarified that MERA will bring the solution to the demarcation point in each station. Echols said MERA will get the alerting to the same reception point as it is today and anything beyond would be the agency's cost, including any desired upgrades. Hymel said Next Gen covers base functionality and not customizations.

Echols re-presented the updated Implementation budget, which has been reduced to approximately \$1.5M from the original \$2M estimate. On May 10, the

Governing Board asked for additional information about whether County staff tasks were redundant with project management services provided by Federal Engineering. He noted the primary distinctions between DPW and FE's services, adding that this same update was provided to the Finance and Project Oversight Committees on June 15.

Gaffney asked about \$1.23M cited in the report as DPW costs going forward, plus approximately \$300,000 spent to date on DPW services. Echols said that is correct, noting about \$500,000 savings from the June 30, 2015 Agreement Budget. Pearce thanked Echols for the update.

5) MERA System Operations Update – (Chuck)

Chuck summarized DPW current System support services in May, including weekly and quarterly preventive System maintenance and participation in the Next Gen Project discussions. He said more maintenance is required for FSA due to age. The microwave transmitter at Mt. Tam was replaced and the aging air conditioner at Bay Hill was repaired. DPW and Ranger staff responded to an entry alarm at Mt. Tam triggered by the site owner. The System controller at the prime site was reset.

Chuck said they receive 300 to 500 alarms daily. There are 2,000 alarm points in the System that must be monitored and analyzed. System usage charts show 268,000 calls in May with 776 hours of call time and 2 seconds of busies. 2017 year-to-date, there were 3,826 call time hours with 7 seconds of busies. The 1.3M in calls is consistent with prior years. The top five users are still the same.

6) Other Information Items      None

E. Open Time for Items Not on Agenda

Pearce reported on the Martha Company bringing forth the Easton Point Project again. The radio tower site is still included in the plan. The water tower location has been moved further down the hill. Gaffney asked if we need this tower. Pearce confirmed it was needed for parts of Tiburon. It is an asset we would like to hang on to. Echols added that the County confirmed that the site needed to stay in the plan.

F. Adjournment      The meeting was adjourned at 4:37 p.m.

Respectfully submitted by:

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Maureen Cassingham  
MERA Executive Officer and Secretary