

**E.B. 11/14/18 Agenda Item B-2**

**MARIN EMERGENCY RADIO AUTHORITY**

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

**Minutes of September 12, 2018 Regular Meeting**

**DRAFT: 10/10/18**

**Call to Order**

The meeting was called to order by Chair Hymel on September 12, 2018 at 3:40 p.m. at the Novato Fire Protection District Administration Office, Heritage Conference Room, 95 Rowland Way, Novato, CA 94945. Self-introductions followed.

**Board Members Present:**

County of Marin	Matthew Hymel
Marin County Sheriff	Mike Ridgway
City of Novato	Matt McCaffrey
Fire Services	Richard Pearce
Police Departments	Mike Norton
Southern Marin Cities/Towns	Craig Middleton
Special Districts	Don Wick

**Board Member Absent:**

City of San Rafael  
Ross Valley Cities/Towns

**Staff Present:**

MERA Executive Officer	Maureen Cassingham
MERA Deputy Executive Officer - Next Gen Project	Dave Jeffries
MERA Operations Officer	Ernest Klock
Communications Engineering Services Interim Representative (DPW)	Tucker Evans (Alternate)
Recording Secretary	Jeanne Villa

**Guests:**

Federal Engineering	Rajit Jhaver
Federal Engineering	David Mortimer

A. Consent Calendar

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

- 1) Minutes from July 11, 2018 Executive Board Regular Meeting
- 2) Report No. 72 on Strategic Plan Implementation
- 3) Bi-Monthly Report on Reserve Funds Balance
- 4) Confirmation of MERA Executive Board Member Appointments –  
Effective September 12, 2018

Cassingham requested Item 4 be removed from the Consent Calendar for separate action.

*M/S/P Pearce/Wick to approve the Consent Calendar Items 1-3 as presented.*

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

Cassingham distributed the updated Item 4 noting the new Executive Board member representing Southern Marin Cities/Towns as Belvedere City Manager Craig Middleton. Middleton was appointed by the Marin Managers Association to succeed Tiburon Town Manager Chanis. He noted he was stepping in to fulfill this appointment due to Chanis' schedule conflicts with Executive Board meetings.

*M/S/P Pearce/Ridgway to approve updated Consent Calendar Item 4 as presented.*

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

B. Executive Officer's Report – (Cassingham)

- 1) Report No. 45 on Next Gen System Project – (Jeffries)

Jeffries presented his monthly report noting we continue to be in design review with Motorola, which is extended due to the Environmental Impact Report process. He referenced recent Project calls and meetings. This report will be followed by his summary of the Joint Committee meeting of the Next Gen Project Oversight and Finance Committees that occurred just before this meeting.

Jeffries summarized the attachments to his report beginning with the updated Project Budget emanating from the August 30 meeting with Finance Chair and Vice Chair Hymel and Gaffney, respectively, Executive and Next Gen Deputy Executive Officers and Operations Officer. He noted changes in certain line items including the reduction of site acquisition and construction expense, the addition of Bond interest expense and extension of administrative fees over the life of the Bonds. This will continue to be a living document.

Jeffries cited the potential CEQA process impacts on Project legal and staffing costs. After CEQA, site work impacts will also be better known through the construction bid process. Hymel said there have been many changes in the Project Budget since originally developed. The closer look at Budget projections is in order before the Governing Board considers Project Change Orders. Currently, there is an appropriated contingency of \$2.2M and potential Change Orders exceed this amount.

In working with Gaffney, who has been doing the cash flow needs analysis for the Project, Hymel said we have identified \$7.9M in available unappropriated funds. Potential sources of available funds combined equal \$10M against potential Change Orders of \$5M, subject to change based on Governing Board discussion. The intent is to seek Governing Board approval of the revised Project Budget in September and present Change Orders to them for final action in October.

Hymel recapped Project costs, noting the roughly \$5M in interest savings from the 2016 Bonds sale at 2.5% interest. Site construction costs were reduced by \$4.7M. However, the Project has gone longer than anticipated which offsets certain savings.

2) Report from Joint Meeting of NGPOC and Finance Committees of  
September 12, 2018

Jeffries recapped the Change Order (C.O.) review process to date which includes the Operational Issues Working Group and earlier Joint Committee meeting. The Committees, in response to presentation of the individual Change Orders, considered what was required and recommended.

Jeffries reviewed Change Order #5, noting Item 1, additional equipment for the Tiburon and Mill Valley sites and related SUA changes not being billed to MERA; Item 2, upgrade of the Radio Core to M3; and, Item 3, addition of PA functionality to Woodacre and San Rafael Dispatch are likewise not being billed to MERA. Item #1 was provided because the Motorola Contract design as proposed did not meet MERA's coverage needs per Regional Planning Committee requirements.

Klock presented the nine items in Change Order #6, which were reviewed by the

Joint Committees in detail. Half of the items were identified as nice to have, including a spare server and redundant equipment. Item #1, Sonoma Mountain, and Item #7, Pacers, were combined into one C.O. with the balance combined into another, as nice to have.

Jeffries reviewed Change Order #7, which includes a recommendation for equipment. It was decided to separate the C.O. #7 for Radio Management for Governing Board consideration on September 26 and come back to the Governing Board at a later date on the early portable radios order. This will allow Motorola to address any discounts that might be offered for early order approval. Costs presented in his report assumed no discounts.

Jeffries said agencies needing to early order radios received a dual band upgrade at no cost to MERA. Bringing in the other radios is a \$2M cost that will save 8 months in programming time before cutover at a savings of an estimated \$800,000. Change Order #7, which uses Wi-Fi hotspots and Over-the-Air programming, received Committee support given future savings in reprogramming time and staff efficiencies. Jeffries clarified for Ridgway that Motorola discounts are based on calendar year.

Hymel asked about the Project schedule if CEQA goes well. Jeffries and Klock confirmed completion in mid-2021. If year-end deals are available in 2019, Hymel asked about holding off until then. Jeffries said cutover would likely be in November 2020 with this schedule scenario. He said late-2019 would be the latest we would want to order portable radios.

Klock, in response to Hymel, said the draft SEIR will be available in November followed by a 45-day comment period. Comments are addressed thereafter followed by a public hearing early next year. This is followed by a 30-day time period for filing litigation. Jeffries cautioned that radio discounts may go away the closer Motorola is to system delivery.

Norton asked if history could inform us about Motorola timing of new radio releases. He said a great deal from them might signal a pending upgrade or release. Jeffries said the feature set would likely be the same but noted potential issues in mixing models. He noted the possible value of MERA buying a supply in-stock sets if discontinuation is planned for MERA radios currently in use. Jhaver added that radio features also have to be in system infrastructure as well.

Norton asked about significant reduction in future radio model sizes. Jhaver said these kind of equipment leaps have occurred incrementally over time.

Jeffries said we are on track right now for single-band #6000s for all our users. Early ordered radios are 8000 series with several bands in them. These radios will have to be reprogrammed for Next Gen. He added that the \$800,000 time savings

for a \$2M early order may not be sufficient to proceed, but Motorola may be coming back with discounts to factor into our decision. Ridgway added heavy discounts may indicate a model change.

In response to Pearce about portable life span, Jhaver said radios can be in use for 10 to 11 years. He said every 2 years there tends to be incremental updates but there is no set schedule. Product updates tend to be announced in March and August. Hymel asked if Motorola introduced updates subsequent to the end of 2017. Jeffries said the discounts taken advantage of were executed by June for the 2 early radio orders. Hymel confirmed with Jeffries there was no radio release at that time.

Middleton inquired about the cost of \$2M to buy radios early. Jeffries said MERA contracted to buy the 6000 model radios. To bring them in early, they have to work on current and new Systems. The 6000s only handle single band. The new system requires the 8000 series and a second band install. Motorola offered if we paid early, the second band would be free. The upgraded cost is the difference between radio 6500 per unit contract cost to the early order per unit cost of the 8500 dual band model.

Klock presented Change Order #8, which involves a change in the microwave network architecture to upgrade from Layer 2 to MPLS. At the time of the Motorola Contract approval, data use of the microwave network was not known. Layer 2 was thought to be sufficient for current voice traffic. During design, additional data sources were identified, including FBI and CHP circuits and fire cameras. Additionally, MERA has inquired about site security. These uses and possible video use would not be secure without MPLS.

Klock said this a functional item if MERA decides not to carry higher load data packets. If we are to continue, then MPLS architecture is needed to provide increased reliability and redundancy and to ensure continuation of non-LMR data services. The combination of large data packets and voice could crash Layer 2 architecture.

Jeffries said at the preceding Joint meeting, feedback on Change Order #5 was that it was fine as presented. Change Order #6 will have required "separated" from "recommended" to review pricing separately. Change Order #7 will go forward with the radio management component, separating out the early radio portion for later consideration based on updated discount information from Motorola. Change Order #8 will be re-presented, including information on impacts on additional system life and system security.

Jeffries added that these Change Orders will be presented in depth again at the September 26 Governing Board meeting, along with impacts on the updated Next Gen Project Budget if approved. There are funds to do this but impacts must be

assessed on remaining reserves for the rest of the Project. Final decisions on all of this are scheduled for the October 24 Governing Board meeting.

3) Other Information Items

None.

C. Operations Reports – (Klock)

1) CEQA Process and Schedule Update – Next Gen Project

Klock noted CEQA is continuing to go well. Since the close of the public comment period for the Scoping portion, the Team has been working on the draft SEIR, completing special studies and conducting outreach meetings with special stakeholders. Those meetings include Mill Valley, Tomales and the Skyview neighborhood. Initially, stakeholders have been curious, but the Team has focused on demonstrating Project need with people being generally receptive. They have also reached out to GGNRA, NPS and Federated Indians of Graton Rancheria, which have all been positive. One more meeting is pending with Muir Beach at the end of September. The draft EIR is projected for November.

Klock said once the draft EIR is published, there is a 45-day public comment period. Once closed, the report will be finalized and presented to the Governing Board for adoption in January/February 2019. Jeffries added that our outreach, especially with the Skyview neighbors, was very helpful in assuring this is not an RF site but a microwave hop. They have a robust local disaster council that is interested in co-locating ham radios at the site and adding security cameras. The exchange was ultimately supportive and positive.

2) Request for Additional Radios

NORCAL Ambulance  
Marin County Public Works

Klock presented the NORCAL request for two additional radios, along with County Public Works for 12 additional radios. Ops has reviewed the requests twice. Their letters of request acknowledged they will have to buy new radios for use on the Next Gen System. Jeffries confirmed both entities are requesting single-band radios.

*M/S/P Pearce/Ridgway to approve the request for 14 single band radios for NORCAL Ambulance (2) and County Public Works (12) with a waiver for compliance with the MERA dual band requirement.*

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

Middleton asked if we have additional radio capacity built into the Next Gen System. Jeffries said current capacity is 3,000 radios and the new system design is for 5,000 radios. Hymel confirmed we have been static around the 3,000 radio mark.

- 3) MERA System Operations Update – July and August, 2018 – (Simpson)  
Evans summarized Radio Shop activity for July and August. Weekly and quarterly maintenance were completed and support was provided for Next Gen and FE. There was a problem with the West and a faulty channel bank card was replaced at Mt. Tam. A faulty antenna was changed at Bolinas. Escort was provided to third parties to sites for the RF study. The GPS module was replaced at Mt. Burdell, along with System batteries at Big Rock. Trees were trimmed at multiple sites to improve microwave paths. And, the Pt. Reyes microwave transceiver was replaced.

Evans said July's biggest System users were the Sheriff's Office and San Rafael at 14%. Total busy time was 4 seconds. August's two largest System users were the same agencies at 14% each. Total System busies were 4 seconds. The largest annual System usage to date was the Sheriff and Central Marin, the latter of which is affected by how talk groups are patched. Ridgway said it is operationally affected by simulcasting, which is reflected in call count and can be misleading. Evans noted 29 seconds of busies for total annual call time.

- 4) Other Information Items  
None.

D. Open Time for Items Not on Agenda  
None.

E. Adjournment  
The meeting was adjourned at 4:11 p.m.

Respectfully submitted by:

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Maureen Cassingham  
MERA Executive Officer  
and Secretary