MARIN EMERGENCY RADIO AUTHORITY

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DRAFT: 10/23/2018

NEXT GENERATION PROJECT OVERSIGHT AND FINANCE COMMITTEE JOINT MEETING

MINUTES OF SEPTEMBER 12, 2018

Call to Order

The meeting was called to order by Vice Chair Brown at 1:35 p.m. on September 12, 2018 at the Novato Fire Protection District – Heritage Room, Novato, CA.

Committee Members Present:

Town of Corte Madera	Mike Norton (Alternate)
Tiburon Fire Protection District	Richard Pearce
County of Marin Fire	Mark Brown
County of Marin	Matthew Hymel
Marin County Sheriff	Mike Ridgway (Alternate)
Town of Tiburon	Greg Chanis

Committee Members Absent:

Novato Fire Protection District
City of Novato
Town of Ross

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	Ernest Klock
DPW Communications Engineering Services	Tucker Evans

Guests Present:

David Mortimer	Federal Engineering
Rajit Jhaver	Federal Engineering
Rodney Hughes	Motorola
Mike De Benedetti	Motorola
Steve Gonzales	Motorola
Tucker Evans	Department of Public Works

A.   Approval of Minutes from March 19, 2018 Next Generation Project Oversight
      Committee Meeting

      *M/S/P Pearce/Ridgeway to approve minutes from March 19, 2018 Next Generation
      Project Oversight Committee Meeting as presented.*
      AYES: All
      NAYS: None
      ABSTENTIONS: None
      Motion Carried

B.   Approval of Minutes from February 22, 2018 Finance Committee Meeting

      *M/S/P Hymel/Norton to approve minutes from February 22, 2018 Finance Committee
      Meeting with correction of spelling of Pearce's name.*
      AYES: All
      NAYS: None
      ABSTENTIONS: None
      Motion Carried

C.   Updated Budget Estimates

      Jeffries reported that Marin Emergency Radio Authority (MERA) staff met with Marin
      Department of Public Works (DPW) staff and some members of the MERA Finance
      Committee to review the MERA Next Generation Project budget. He noted some of the
      projected costs for items such as site construction and acquisition had been dropped
      considerably. The purpose of the meeting was to update budget numbers and give MERA
      committee members a better overall financial context in advance of discussing a number
      of Motorola change orders for the Next Generation Project.

      Hymel explained that the group examined the budget updates from both an appropriations
      budget and cash flow perspective. The project is on a twenty-year timeline, with a total
      cost of roughly $70 million, but most of the expenses are on the front end of that
      timeline. Hymel recommended that the revised budget be presented at the next MERA
      Governing Board meeting so that everyone was on the same page.

      Hymel noted that there are some positives and negatives in the budget revisions. For
      example, site acquisition and construction costs dropped from an estimated $10 million to
      $5.3 million. Ridgeway asked if there was a built-in contingency to the site acquisition
      and construction costs. Klock responded that he had put a roughly twenty percent
      contingency into this budget item, and that he would be providing a more detailed
      accounting of the site acquisition and construction costs at the next Governing Board
      meeting. Hymel said that MERA should also realize an additional roughly $590,000 in
      savings to projected DPW project costs. Conversely, MERA Regional Government
      Services and MERA legal fees were projected to be higher given current delays in the

project timeline. Additionally, fees for parcel tax collection were increased to roughly $3.2 million after being extended out for the full twenty year project timeline. Hymel concluded that there is roughly $7.8 million in parcel tax funds that have yet to be appropriated and suggested that MERA staff work on allocating those funds prior to the next MERA Governing Board meeting. Jeffries asked how the funds for non-law/fire radios were accounted for in the current budget. Hymel responded that Gaffney would need to answer that question. Hymel finished by recommending that outstanding budget questions get answered, including firming up reserve numbers, and that a revised budget be presented at the next MERA Governing Board meeting.

Ridgway asked if there was a comparable experience from the original MERA radio system regarding spending down reserve funds. Cassingham answered that she believed the two projects were not comparable. However, there was a supplemental borrowing above the Bonds in the amount of $2.25M in February, 2007 to complete the Project. Jeffries said the most important upcoming determinants to remaining reserve funds were the California Environmental Quality Act (CEQA) process and potential construction costs. Pearce asked about the increase to DPW staff cost estimates. Klock answered that the cost increases were due to project delays. Cassingham asked if there was not to exceed language in any of the proposed change orders up for discussion. Klock responded that he was not sure if there was any specific language that stated not to exceed, but that the change orders were for a set price and any additional costs would necessitate a supplemental change order. Chanis asked when site construction would begin. Klock answered that he hoped site construction would begin next summer.

Hymel wrapped up the discussion on the budget update by suggesting he work with Jeffries and Gaffney to further clarify outstanding questions on budget revision and develop a more refined presentation for the next Governing Board meeting.

D.   Motorola Change Order #5

Klock explained that back in February, Motorola committed to providing equipment for additional radio tower sites in Tiburon and Mill Valley. The change order he was presenting would formalize that commitment at no cost to MERA. He noted that the equipment and additional System Upgrade Agreement costs were included in the no-cost change order. Motorola had also offered to upgrade the radio core from M2 to M3 and added some PA functionality for Woodacre. He also noted that the site development costs associated with the additional sites were not included in the change order and would be MERA's responsibility. Jeffries added that the additional sites were needed because the original design was deemed unusable by the Regional Planning Committee (RPC), so the new sites were added to make the system work.

Hymel asked if the adjustments were mandatory and what the costs would be if the adjustments were not free. Klock said that the adjustments were necessary and that the estimated value was $4.6 million. He explained that if MERA were for someone reason forced to go out and bid the project again that these costs would be added to the project.

E.   Motorola Change Order #6

Klock introduced change order number six and explained there were nine items to present in the change order. Pearce asked about the first item regarding the Sonoma Mountain site, stating he believed that it was included in the original plan. Jeffries explained that the Sonoma Mountain site currently presented was just a microwave hop site for the Tomales tower. Klock clarified that Motorola discovered a block between Tomales and OTA during physical testing and that Sonoma Mountain was added for a hop site. He said that he believed it was a must have for the Next Generation Project.

Klock presented item number two, purchasing one additional UEM license and one additional Zone Watch license for the Next Generation Project at a cost of $40,000. He explained that only one license each was proposed in the original plan, which was required in the Request for Proposal (RFP). He explained that the additional licenses would allow for monitoring of the Next Generation System at two locations simultaneously, which would alleviate maintenance concerns. Pearce asked if Federal Engineering (FE) made recommendations on the number of licenses during the RFP process. Jhaver answered that one license was recommended based on the input of MERA boards during the RFP development process. Jeffries said that two licenses was not an absolute necessity but would improve efficiency. Cassingham asked if it were possible to do a cost benefit analysis of purchasing additional licenses. Klock said he would work on prioritizing all the various change orders. Hymel recommended categorizing the changes orders by necessity.

Klock presented item number three, which comprised the work necessary to get sites ready for equipment installation for the transition to the Next Generation System. He explained there was some ambiguity in the contract regarding who was responsible for the site readiness work, but that he felt MERA would likely ultimately be responsible for the work based on the current contract. This change order would transfer the responsibility of the site readiness work to Motorola at a cost of $406,000 to MERA. Pearce stated he believed that it was always MERA's intention to have Motorola be responsible for the seamless transition to the new system, including the site readiness work. He asked FE for an explanation as to why this was lost during contract negotiations. Jhaver stated that the conflicting contract language slipped through the cracks. Pearce stated he was concerned about the continuity of the system during the transition. Jeffries and Klock said they believed the change order put the responsibility of continuity during the transition on Motorola. Klock stated he believed that this change order was a must have for MERA. Cassingham asked if there could be additional future change orders associated with site readiness. Benedetti explained that Motorola conducted a detailed site study at each site and that Motorola feels comfortable that the change order presented does include all work necessary for site readiness during the transition to the Next Generation System.

Klock presented item number four, which was the addition of redundant voice logging equipment since only one voice logger was included in the original contract. He explained that this would provide back up for the server handling voice recording for MERA radios. Ridgway asked what the redundancy for the current system was and how many times it had failed. Evans responded that he was not sure about current redundancy, and that he was not aware of the current system ever failing. Norton asked how long it would take to restart the system if it did fail. Gonzales said that other agencies had only purchased one voice logging server and had subsequent problems with litigation due to system failures. He said it would probably take one or two days to replace the server if there was not a backup server. Ridgway asked if this would affect telephone recordings. Jeffries said that this system dealt with radio recordings only.

Klock presented item number five, a change order for backup power supply for Jail BDA at the cost of $10,000. Jhaver explained that a BDA is a bi-directional amplifier that basically amplifies the signal in the jail facility. This battery would provide a second level of redundancy for power for the BDA if the generator at the jail were to fail.

Klock presented item number six, which would be the purchase of two additional dispatch console speakers for each dispatch position. The contract provided for two speakers per position. MERA Ops group concluded that it would be helpful for dispatchers to have an additional speaker or two to put traffic on. The change order would cost $21,000 for the purchase of 46 additional speakers. Klock noted that this item was not a necessity, and MERA member agencies could choose to buy additional speakers for dispatchers later if the change order was not accepted.

Klock presented item number seven, which would upgrade pagers to Time Division Multiple Access (TDMA) at the cost of $30,000. Klock said he believed that the TDMA functionality was not available when the Request for Proposal (RFP) was developed. Traffic concerns were raised during design review when the pagers were discussed. Adopting the change order and switching to TDMA would alleviate traffic concerns for the pagers. Jeffries added that it was always MERA's intent to upgrade pagers to TDMA but that they were unable to quote a price because the TDMA technology did not exist during contract negotiations. Brown said that the upgrade would also help with talk group efficiency and ease of use for dispatchers for the volunteer pager system. Hymel asked if the change order was mandatory or recommended. Jeffries said that the system would work without the upgrade, but that there were traffic risks and efficiency concerns if the change order was not accepted. Jeffries said he believed the upgrade was one MERA had always intended to do. Hymel again requested that distinctions were made regarding the priority of the various change orders.

Klock presented item numbers eight and nine, both back up servers for different parts of the Next Generation System. Item eight provides for the $1,500 purchase of one NAS Backup Server, since no backup was included in the original contract. Item nine provides for the addition of one pre-configured VMS Server spare in the event that the main VMS Server fails, and a quick replacement is needed. Pearce asked if it was typical to not include these redundancies for system components in radio system proposals. Hymel

added that adding additional redundancy seemed to be a theme throughout the change orders presented. Jhaver said that there is a certain amount of redundancy needed, but there is also a certain amount of discretion regarding the level of redundancy a client might feel comfortable with.

Jeffries pointed out that there were equipment discounts and system discounts included for the change orders, details of which were provided to the committee in the agenda packet. Klock added he would be prioritizing the various change orders and also provide more clarity regarding price savings and discounts for each line item in this change order.

F.   Motorola Change Order #7

Jeffries explained that previously MERA had discussed bringing in radio equipment early to realize discounts from Motorola and to help ease the transition to the new system. He reminded the committee that MERA ultimately decided against this plan of action and decided to bring the idea back to MERA boards for discussion at a later time. The change order presented would provide some technologies that would help with radio programming for roughly $580,000.

Jeffries explained that currently technicians must go out and physically touch radios in order to reprogram them. With the new technology provided in the change order, radios could be programmed with the MERA system and/or Wi-Fi access. Over the Air Programming (OTAP) would essentially use a MERA data channel to connect with the radios. Considering the total number of MERA radios, this could be a slow process and it is slower than using Wi-Fi to reprogram radios. Most MERA member agencies have Wi-Fi access, which could also be used to reprogram radios. Jeffries explained that both technologies could potentially make the transition to the new system much easier. He noted that MERA still would need to decide about timing of ordering radio equipment, but that if radios were ordered early and programmed with OTAP and Wi-Fi, MERA could cut eight to ten months in transition time to the new system and also save money by speeding up the transition process.

Ridgway asked how much MERA would save if radios were ordered early to speed up the transition process. Jeffries responded that it was complicated, and depended on which type of radios MERA ordered, but that rough cost savings would be around $800,000. Hymel said that he believed that the decision to order radios early still depended on the certainty around the date for system cutover. He asked if there were any updates on the system schedule. Jeffries said that the current schedule still had system cutover in 2021, but the schedule would be much clearer once MERA had completed the CEQA process. Hymel noted that MERA had not been offered any new discounts for ordering radios early. Benedetti said that he would work on developing a new proposal with discounts for ordering radios early for the MERA Governing Board to discuss.

Jeffries said he would refine his staff report for the Governing Board and would separate out the change order for technology to help program radios from the early order of radios.

G.   Motorola Change Order #8

Klock presented the eighth change order which covered replacing the currently proposed
Layer 2 network architecture with MPLS network architecture for the Next Generation
System microwave network. The change would provide increased reliability and
redundancy at a cost of roughly $2 million. He explained that Layer 2 was designated as
the replacement architecture during the RFP process, which is why it was included in the
original contract. During the design review process, it became clear that Layer 2 would
not be reliable if MERA wanted to include non-voice over the microwave system. In
summary, if MERA wanted to continue to provide non-voice over its system, Motorola
strongly recommended adopting the change order and using MPLS network architecture
in place of the current Layer 2 framework. Klock characterized the change order as a nice
to have, but it would become a must have if MERA wanted to use its microwave system
to relay video and other non-voice items, which it currently does.

Jeffries noted that MERA had adopted a policy that dictates users of the MERA Next
Generation System would be required to enter a written agreement with MERA to use the
system. So, MERA would have the opportunity to closely control the use of the system in
the future. It also might provide revenue opportunities if MERA chose to charge for
bandwidth use.

Pearce asked if this change order was necessary for the core of the system or just nice to
have. Benedetti said that Motorola strongly recommended the use of MPLS given the use
of new technologies and the possibility of potential future technologies that MERA may
want to be able to broadcast on the system. MPLS would provide the backhaul needed to
provide redundancy and reliability to carry these technologies. Pearce asked why this
upgrade was not included in the original contract. Klock said it should have been and was
recommended in the AECOMM report commissioned by MERA in 2010. Klock also said
that Motorola brought up the use of MPLS during contract negotiations. Jhaver said that
he recalled MERA debating the two architectures during a committee meeting and that
MERA ultimately decided on the cheaper option at the time. He noted that some radio
system providers do decide to use Layer 2 because they only want to provide structure for
voice calls.

H.   Impact of Change Orders on the Budget – Verbal Discussion

Brown said that the impact of change orders on the budget had been well covered during
the discussions of the change orders.

I.   New Business

None.

J.   Open Time for Items Not on Agenda

          None.

K.   Adjournment

          Brown adjourned the meeting at 3:30 pm.

Minutes prepared by:

Alex Anderson,
MERA Administrative Assistant – MERA Next Generation Project