cbg communications, inc.

Philadelphia Office: 73 Chestnut Road, Suite 301, Paoli, PA 19301 P/ (610) **889-7470** F/ (610) 889-7475
St. Paul Office: 1597 Race Street, St. Paul, MN 55102 P/ (651) **340-5300** F/ (651) 340-5820

www.cbgcommunications.com

RECOMMENDED DRAFT

MARIN EMERGENCY RADIO AUTHORITY (MERA)

STRATEGIC PLAN

Prepared by

CBG Communications, Inc.

Thomas Robinson
President

Dick Nielsen
Senior Engineer

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Executive Summary

At the request of the Marin Emergency Radio Authority (MERA), CBG Communications, Inc. (CBG), in conjunction with the County of Marin Department of Public Works (DPW), has developed a Strategic Plan (Plan) to help guide MERA in the organization's future directions, initiatives and activities. As discussed in the body of the Report, the culmination of the review, discussion, deliberations, planning exercises and other activities of the Ad Hoc MERA Strategic Planning Committee (Committee), over the course of a number of meetings beginning in December, 2009, has resulted in seven (7) strategic directions and initiatives designed to guide the MERA Board and the organization's operations in both the near and longer term.

The Ad Hoc Committee was made up of three (3) key representatives of the MERA Board: Marin County Sherriff, Robert Doyle; Tiburon Fire Protection District Chief, Richard Pearce who also represents the Marin County Fire Chiefs Association; and George Rodericks, City Manager of the City of Belvedere, who was designated by the Marin Manager's Association to represent the municipal members of MERA. CBG facilitated the workings of the Ad Hoc Committee. Farhad Mansourian, Director of the County of Marin, Department of Public Works, and MERA's Operation Officer provided facilitation for technical system discussions and also participated as a member of the Committee. Maureen Cassingham, MERA Executive Officer, provided support to the Committee and the overall strategic planning process.

Strategic Planning Purpose and Process

It is important to note at the outset the purpose of strategic planning. It is designed to identify strategies, and related directions, initiatives, goals and objectives, that can be employed by MERA in the coming months and years to leverage and build upon its existing strengths to overcome current weaknesses, effectively address current and future challenges and take full advantage of current and future opportunities. As such it is a large scale, global, high-level planning exercise that provides specific guideposts and pathways to better help MERA build

long term sustainability to continue to fulfill its mission for its members and their constituencies. Consequently, while it has specific recommendations for developing initiatives to implement the plan, it, like any strategic plan, is not an operational plan. It is not intended to detail, for example, cost/benefit analyses for specific technical system components or enhancements. Rather, it provides directions and guideposts for ensuring that such analyses and actions are made and taken at the proper time and in consideration of all the other actions that must be taken sequentially or simultaneously.

The Strategic Planning process to accomplish the stated purpose was split into four (4) phases:

- **Phase 1: Process Design –** The final Strategic Planning process was designed during this phase, including review and evaluation of a significant amount of background information on MERA, its history and technology, and its Joint Powers Authority (JPA) Formation Agreement, as well as gaining an understanding of both current and anticipated future issues. Project meeting schedules and critical goals and objectives for the planning process were also developed during this phase.

- **Phase 2: Initial Meeting and Planning Activities with the Ad Hoc Committee –** In the initial meeting, there was a significant discussion with the Committee about MERA's current organization and its operations. A Strengths, Weaknesses, Opportunities and Challenges (SWOC) analysis was performed. A wide range of issues was reviewed as part of the SWOC analysis, including those centered on: organizational structure; governance; network issues; technical services; upgrade possibilities; and related matters. The DPW Director presented a compilation of information on MERA's technical operations and possibilities for the future. Best practices were also discussed from both an organizational and a technical system perspective, with examples given from a variety of other public safety radio and emergency operations entities across the country.

- **Phase 3: Findings and Initial Strategic Plan Element Development –** During this phase, the Committee reviewed initial findings, priorities, potential strategic directions and actions, timelines and resources needed related to those potential directions. In this

phase, seven potential strategic directions and initiatives were identified, reviewed, discussed, and then incorporated into the initial draft of the Strategic Plan. These seven strategic directions are discussed in more detail below.

- **Phase 4: Drafting and Finalization of the Strategic Plan –** At this stage, the initial draft of the Strategic Plan has been crafted and is under review by the Ad Hoc Committee. Once reviewed, it will be submitted to the Finance Committee for their input on the financial aspects of the plan. From there, it will go to the Executive Committee for their review and recommendation before being submitted to the Board for its review and approval.

Seven Strategic Directions for MERA

1. MERA's Mission – While the JPA Formation Agreement contains a purpose, it is clear that MERA has evolved since its 1998 formation. It is a well-functioning organization that has a critical mission, and with proper support from its members and necessary funding, can efficiently and effectively addresses the challenges that it faces both today and into the future. Consistent with this, the Committee arrived at the following Mission Statement:

> **MERA's Mission**
>
> MERA is a collection of agencies formed in partnership to provide and operate a public safety radio system. As such, MERA provides a crucial communications delivery system that is interoperable between agencies in order to efficiently and effectively facilitate critical (emergency) communications.

It is recommended that the Mission Statement be adopted consistent with the approval of the Strategic Plan.

2. Changes to MERA's Governance Structure – The Committee discussed a variety of issues surrounding governance and potential changes to governance, based on the challenges that MERA has and the opportunities that can be taken in the future to address the challenges,

leverage strengths and overcome weaknesses. These potential changes to governance center on: the size of the MERA Board; the composition of the Board; and the types and number of Committees. It was recommended that in order to review these potential changes, the Board first go through a self-assessment. Then, a working group should be developed to look at potential changes and recommend any necessary modifications. These two activities are proposed to occur beginning with the approval of the Strategic Plan, with the Board potentially operating under a new governance structure approximately 18 months after adoption of the Strategic Plan.

3. System Technology Replacement Plan Development – The Committee spent a significant amount of time looking at both current and anticipated MERA technical system issues to develop both short and long-term technical strategies. The Committee noted that the current 480 MHz, UHF T-Band system was performing well, serving 25 member agencies and handling over 3.6 million annual calls made by 2,875 radios, which is greater than the number that was projected to be handled over the 20 year initially projected lifespan of the system. The system has 97% outdoor (portable, on the street) coverage of the area that MERA contracted coverage from Motorola. The system has 95% indoor portable coverage in designated urban areas. It should be stressed that neither of these constitutes County-wide coverage.

Based on this, the Committee looked at five major near and longer term focuses for system modifications, upgrades and replacement including:

- Solving current capacity problems and improving capacity. Here goals should be set for the necessary, and realistic, number of radios and amount of traffic.
- Solving current coverage problems and improving coverage. In this case, it will be important to determine the ultimate definitive coverage needed to meet MERA member goals. For example, if the full County, including Federal lands, needs to be covered, this will greatly impact the cost of the system.
- Providing a system that is as interoperable as feasible given MERA member needs. For example, the greater the interoperability needed (across frequency ranges, across county borders, across the Bay area, nationwide, etc.), the greater the cost.
- Incorporating the most advanced technology available.
- As much as possible, avoiding built-in obsolescence.

The status of the current system is in a continual state of evolution, especially concerning interoperability with other regional agencies outside of Marin. An interoperability study was just completed which recommended four potential options for improving interoperability. At this point, grant funds have been received to implement a non-trunked, separate P25, 700 MHz system overlay that will have the capability to be connected to a MERA channel to improve interoperability.

The Committee determined that developing a working group to investigate in detail the various options and develop a finite plan to move forward so that a fully replaced system can be implemented in the next seven to ten years was the appropriate direction to take. This working group would be developed within 90 days from adoption of the Strategic Plan and provide an initial report within nine months. Then, a final system migration strategy would be developed within one year from adoption of the Strategic Plan.

4. Long-Term Funding Plan – The Committee discussed that there were various current timely and time-sensitive projects placing pressure on MERA's funding, including a potential move to the County's new Emergency Operations Facility (EOF) a variety of capacity and coverage improvement projects and the need to coordinate the acquisition and licensing of new UHF T-Band and 700 MHz frequencies. These projects together constitute over 12 million dollars in potential expenditures.

Additionally, the largest necessary capital expenditure that MERA faces will be in the next seven to ten years when it must undergo a full system replacement. The cost at this point is not fully determined, but it is estimated at $50 million plus.

In reviewing these funding requirements, the Committee determined that beginning with the approval of the Strategic Plan, an immediate, near future and long-term funding plan needs to be put in place. The immediate funding plan would use the existing funding mechanisms to continue addressing timely and time-sensitive operational and capital funding needs. A near-future plan would incorporate new funding mechanisms (such as a capital development

campaign and increased grant funding). As the DPW Director noted, increased grant funding is already being obtained for MERA, primarily out of grant funds available for UASI (Urban Area Security Initiative) interoperability grants. A long-term funding plan would extend the mechanisms determined as part of the near-future plan, such that funding needed for system replacement could be obtained and utilized in the next seven to ten years.

The funding plan would be spearheaded by a new Sustainability Subcommittee that would be developed within 90 days after approval of the Strategic Plan. Both the short-term and long-term funding plans would be provided to the Board within 12 to 18 months after approval of the Strategic Plan. These plans would need to be continually monitored and augmented as necessary to ensure that funding and financial goals continue to be met over the next decade.

5. Public Education and Outreach Campaign – The Committee discussed developing an education and outreach campaign both for the general public and the community at large, as well as for MERA's internal constituencies. This campaign would be designed to demonstrate the value of MERA to all of its constituencies and garner support for both MERA's ongoing activities and the funding needed for the extensive future system replacement.

A variety of communications tools and potential messages were discussed by the Committee as elements needed to implement a successful education and outreach campaign. This included tools such as:

- Greater use of MERA's website by adding additional capabilities;
- Work with the Community Media Center of Marin (CMCM) to develop PSAs and longer form videos describing what MERA does and its value to the community. It would be especially useful if MERA's individual members could also develop PSAs that describe how each of the members use and rely on MERA's system;
- Making presentations at community meetings and appearing at community events such as the County Fair; and
- Working with press organizations to print press releases and develop positive image feature stories.

The Committee recommended developing an Outreach Subcommittee to assist in developing messages that MERA needs to convey and also in helping implement new communications tools. Necessary activities would begin within three months after adoption of the Strategic Plan, delivering initial messages within six months and more extensive image-based information within 18 months. Thereafter, MERA would continue its outreach throughout the capital development campaign.

6. Expanding Partnerships – The Committee discussed developing additional partnerships and expanding activities with existing partners in order to help meet current and future goals. This included expanding activities with the College of Marin; expanding partnerships with hospitals (who are already well-versed in the development of communications plans and capital campaigns); exploring partnerships with the private sector; and developing greater cross-promotions with member public safety organizations' websites.

The Sustainability Subcommittee would be the focal point for work on partnership expansion efforts. Regarding a timeline, such efforts would begin to occur within six months after adoption of the Strategic Plan and result in new and expanded partnerships within two years after adoption of the Plan.

7. Strengthening the Common Bonds of the Membership – The Committee discussed that it would be very important to continue to build the cohesiveness and common focus of the MERA membership. A variety of divergences, such as member size and differences in member agency purposes and missions, continue to exist within the MERA membership and sometimes create various types of conflicts. Some of these conflicts are rooted in cost allocation for system enhancements that may be perceived to benefit some MERA members more than others.

Accordingly, the Committee believes that it is important to look for ways to strengthen areas that are already acknowledged as working well from the common membership perspective, while looking for ways to offset diverging factors and foster more commonality. In order to pursue this strategic direction, it was recommended that a working group be developed to identify the strongest commonalities and look for ways to resolve the greatest divergences. Additionally, a

highly useful internal communications system should be developed to enable members to share ideas, have dialogue, and provide examples of common bond strengthening in other public safety organizations. The working group and internal communications system should be developed such that recommendations made by the group are implemented within three years after adoption of the Strategic Plan and evaluated annually thereafter.

Financial Considerations Related to the Strategic Directions and Initiatives

A number of current activities consistent with the proposed Mission Statement for MERA can be handled by existing MERA resources. However, as discussed below, the sum total of all the Strategic Directions discussed herein will require a significantly greater amount of members', staff and contract support time. Other activities such as the system replacement cannot be finitely projected at this time, but the current ballpark estimate of $50 plus million must be considered as a major overarching expense where consistent efforts will need to be made over the next few years to develop necessary funding.

Below, we have developed some funding projections spanning the next ten (10) years related to each one of the Strategic Directions. Note that all funding projections are in 2010 dollars, so cumulative inflation will need to be taken into account during the actual year of expenditure. These projections are more specifically delineated year by year (Years 1 through 10 after Plan adoption) in Attachment A to the Strategic Plan.

1. **MERA Mission –** Additional funding for Strategic Plan update facilitation services is projected at $75,000.

2. **Changes to MERA's Governance Structure –** Additional staff time, plus additional legal services and potential outside facilitation services for both the initial Board self-assessment and the governance working group. This is projected at $50,000 - $60,000.

3. **System Technology Replacement Plan–** Outside technical consulting expertise as needed, projected at $30,000 - $50,000, plus capital requirements of $62,300,000 plus.

4. **Funding Plan–** Beyond the multimillion dollar funding (potentially over 12 million) needed for both current time-sensitive technical projects (interface with the County's

new EOF, procurement of new frequencies and a variety of coverage projects and increased capacity projects) and the future extensive system replacement as discussed above, development of the funding plan would include additional staff time, additional legal and accounting services, and potentially grant writing services. This cost is projected at $70,000 plus.

5. **Public Education and Outreach Campaign –** Additional staff time, as well as website development assistance, video/audio production support, air-time procurement and potential PR firm assistance. This cost is projected at $140,000.

6. **Expanding Partnerships –** Additional staff time as well as additional legal and accounting services. This cost is projected at $30,000.

7. **Strengthening Common Bonds –** Potential outside facilitation assistance to assist the working group in their tasks plus survey firm assistance. This cost is projected at $25,000 - $30,000.

As can be seen, a significant amount of time for activities beyond current functions would be needed for MERA staff. It would most likely require full-time staff work (equivalent of one FTE) for at least the next two to three years after adoption of the Strategic Plan.

Synopsis of Strategic Directions and Initiatives

The Strategic Plan described within the following Report is comprehensive and designed as an efficient and effective guidepost for MERA for years to come. As with any Strategic Plan, it should be revisited at regular intervals and adjusted as needed to react to changing circumstances and those that could not be forecast at the time this Plan was developed.

In short, the key recommendations related to each of the seven (7) strategic directions recommended for adoption as part of the Strategic Plan are:

1. **Adopt a new Mission Statement:**
    - Develop a new Mission Statement consistent with the approval of the Strategic Plan
    - Review the Strategic Plan on an as needed basis and formally update the Strategic Plan every five (5) years
2. **Changes to MERA's Governance Structure:**
    - Conduct a Board self-assessment
    - Develop a working group to look at changes to governance, potentially developing and operating under a new governance structure approximately 18 months after adoption of the Strategic Plan
3. **Development of the System Technology Replacement Plan:**
    - Develop a working group to investigate the various options and develop a finite plan to move forward so that system replacement can be implemented in the next seven to ten years.
    - An approved system migration strategy should be developed within one year from adoption of the Strategic Plan.
4. **Short and Long-term Funding Plan:**
    - Implement a new Sustainability Subcommittee within 90 days after approval of the Strategic Plan.
    - Develop a short-term and long-term funding plan within 12 to 18 months after approval of the Strategic Plan.
        - The short term funding plan should address the move to the County's new Emergency Operations facility, capacity and coverage improvement projects and procurement of new frequencies.
        - The long-term funding plan should address system replacement in the next seven to ten (7 to 10) years.
5. **Public Education and Outreach Campaign:**
    - Develop an Outreach Subcommittee to assist in developing critical messages for MERA and implementation of new communications tools.

- Begin the process within three months after adoption of the Strategic Plan with initial messages delivered within six months and more extensive image-based messages within 18 months.

6. **Expanding Partnerships:**
    - Have the Sustainability Subcommittee focus on partnership expansion efforts as well as fundraising.
    - Begin such efforts within six months after adoption of the Strategic Plan and develop new and expanded partnerships within two years after adoption of the Plan.
7. **Strengthening the Common Bonds of the Membership:**
    - Develop a working group and an internal communications system to focus on strengthening the common bonds of MERA members.
    - Make recommendations for stronger bonds within three years after adoption of the Strategic Plan and evaluate the recommendations and efforts annually thereafter.

Introduction

At the request of the Marin Emergency Radio Authority (MERA), CBG Communications, Inc. (CBG), in conjunction with the County of Marin Department of Public Works (DPW), has developed a Strategic Plan (Plan) to help guide MERA in the organization's future directions, initiatives and activities. As discussed herein, the culmination of the review, discussion, deliberations, planning exercises and other activities of the Ad Hoc MERA Strategic Planning Committee (Committee), over the course of a number of meetings beginning in December 2009, has resulted in seven (7) strategic directions and initiatives designed to provide guideposts and pathways for the MERA Board to sustain and enhance the organization's operations in both the near and longer term.

The Ad Hoc Committee was made up of three (3) key representatives of the MERA Board: Marin County Sherriff, Robert Doyle; Tiburon Fire Protection District Chief, Richard Pearce who also represents the Marin County Fire Chiefs Association; and George Rodericks, City Manager of the City of Belvedere, who was designated by the Marin Managers' Association to represent the municipal members of MERA. CBG facilitated the workings of the Ad Hoc Committee. Farhad Mansourian, Director of the County of Marin, Department of Public Works, and MERA's Operation Officer provided facilitation for technical system discussions and also participated as a member of the Committee. Maureen Cassingham, MERA Executive Officer, provided support to the Committee and the overall strategic planning process.

MERA is a partnership of Marin's Cities, Towns, the County, Water, Transit, Public Utility and Fire Protection Districts and various other special districts and organizations that was established in 1998 to build a multi-agency replacement for obsolete, individual emergency radio systems. MERA successfully serves its 25 member agencies with a 480 MHz, UHF T-Band public safety radio system that encompasses thirteen (13) RF sites, one microwave-only site, one Prime Site (currently at the Marin Civic Center), and seven (7) Dispatch Centers. The system uses 33 UHF T-Band radio frequencies and handles over 3.6 million annual calls. The system has 97% outdoor (portable, on the street) coverage of the area that MERA contracted coverage for from

Motorola. The system has 95% indoor portable coverage in designated urban areas. Neither of these constitutes Countywide coverage..

The system was designed in 1998 to accommodate 1,580 mobile and portable radios. Today it serves 2,875 radios, which is above the projected total that was originally anticipated over the 20-year life of the system.

As discussed more specifically in the next section concerning the Strengths, Weaknesses, Opportunities and Challenges (SWOC) analysis, while the system has performed extremely well under continual high demand, there are a number of current issues and an extensive anticipated system replacement in the future that require MERA to perform strategic planning and develop strategies, including strategic directions and initiatives, to enhance the system and its operations in both the near and longer term.

The Strategic Planning process was split into four (4) phases:

- **Phase 1: Process Design** – CBG worked with the MERA Executive Officer and the Director of DPW to develop a final process design for the Strategic Planning work with the Ad Hoc Committee. During this Phase, we reviewed and evaluated background information, established a projected meeting schedule and developed critical goals and objectives for the process.

- **Phase 2: Initial Meeting and Planning Activities with the Ad Hoc Committee** – The initial meeting was set for early December 2009. During that meeting, CBG worked with the Committee to familiarize them with the process. We also discussed baseline issues related to MERA's organization and its operations (i.e., where MERA is now, how MERA got to its current status and where MERA would like to proceed in the future).

  Additionally, the Committee reviewed the best practices of other public safety radio and emergency operations organizations, from both an organizational and technical perspective. For example, we reviewed the organizational best practices of the statewide

multi-agency Alaska Land Mobile Radio communications system partnership (ALMR), RiverCom (Chelan and Douglas Counties, Washington) and DU-Comm (DuPage County, Illinois). On the technical side, the Committee reviewed everything from simple public safety systems like that of the City of Cotati to more complex systems such as the Los Angeles County Sherriff and Fire and Federal Department of Defense systems.

During this phase, we performed brainstorming with the Committee and underwent a SWOC (Strength, Weaknesses, Opportunities and Challenges) analysis. The SWOC analysis looked at: organizational issues, governance issues, network issues such as maintenance, coverage and capacity requirements, technical services, upgrade and replacement possibilities, and other matters. Under the Challenges portion of the analysis, CBG and the Committee discussed risks and network vulnerability issues (such as obsolescence, security, etc.). We also discussed a variety of issues related to funding and the resources needed to maintain, expand, upgrade and replace the network. The SWOC analysis is profiled in greater detail in the next section of this report.

- **Phase 3: Findings and Initial Strategic Plan Element Development** – In the next two meetings with the Committee, CBG worked with the Executive Officer, the Director of DPW and the Committee to discuss initial findings, priorities, potential strategic directions and actions, timelines and resources needed related to those directions. During this phase, we also continued to analyze the best practices of other jurisdictions, compared the current and desired future environment and then worked through all of the material and issues to fine tune and decide on consensus directions, actions, timelines and potential costs in order to begin drafting the Strategic Plan.
  Some of the key issues that CBG and the Committee reviewed, analyzed and developed a strategy for the future, included:
  - Defining MERA's boundaries (scope of activity, oversight and involvement, degree of elasticity, etc.)
  - Determining MERA's core mission (what MERA must do versus what it can do that is ancillary and beneficial, considering its capabilities and available resources)

- Development of a long-term financial plan, including support for operations, maintenance and capital expenditures
- Development of a network upgrade and replacement strategy

- **Phase 4: Drafting and Finalization of the Strategic Plan** – All the information developed during the previous three phases has been used to develop this initial draft written Strategic Plan. The plan addresses the MERA system, its current and planned future operations, user needs and expectations, comparisons with other similar Emergency Communications Systems (EMS), incorporation of emerging technologies, analysis of necessary resources to enhance and/or replace the system when necessary and criteria related to future maintenance and operations.

  At this stage, the plan is being routed in draft form to all of the Ad Hoc Committee members for their detailed review. Once the detailed review is performed, consensus is reached and any necessary revisions are incorporated into the Plan, final review will be performed by the Ad Hoc Committee and it will be sent to the Finance and Executive Committees and then the MERA Board for review and approval.

Strengths, Weaknesses, Opportunities and Challenges (SWOC) Analysis

During the initial Ad Hoc Committee meeting, CBG took the Committee through a Strengths, Weaknesses, Opportunities and Challenges (SWOC) Analysis. A SWOC analysis is a Strategic Planning exercise that, in this case, was designed to help identify those areas of MERA that will be considered high priority for development of strategic directions and initiatives. Once identified, the goal is to develop strategic directions and initiatives that:

- Maximize/leverage the identified strengths
- Shore up the weaknesses that are determined
- Seize the opportunities that are identified
- Address the challenges that have been delineated

Before undertaking the SWOC analysis, we went over with the Committee what is considered to be the best practice definitions of the four (4) SWOC elements. Specifically, each was defined as:

- **Strengths** - organizational and technical systems, practices, processes, and resources that are highly valued by internal/external stakeholders
- **Weaknesses** - areas of an organization and technical system that need improvement, reasons why stakeholders do not wholeheartedly embrace the mission of the organization as a whole and areas that tend to compromise the achievement of stated goals
- **Opportunities** - favorable situations/ circumstances not yet taken advantage of that may positively impact an organization's and technical system's performance
- **Challenges** - present/future situations/ circumstances that may negatively impact the mission or overall value of the organization and technical system as perceived by internal/external stakeholders

The Ad Hoc committee spent a significant portion of time at the initial meeting, based on their significant involvement and experience with the MERA organization and its operations, including their many years of history concerning the workings of the organization and its direct affect on the operations of the members agencies and jurisdictions they represent, delineating a

number of strengths, weaknesses, opportunities and challenges. Specifically, the Committee arrived at the following:

Strengths

The strengths that the Committee noted were many and varied and included the following:

- There is a perceived high value in MERA
    - The members perceive this value equally
- There is a collective commitment to the MERA system now
    - The original "baggage" related to MERA's formation is going away
    - The commitment that is currently there provides a solid foundation to build upon
    - Now those involved in MERA talk about issues and understand interrelationships
- The membership is willing to address challenges
    - MERA is "change agile"
- The organization continues to move towards the proper delineation between administration/operations/technical concerns
- Administration is separated from operations and this functions well
    - Before, administration and operations were tied together, and there wasn't an understanding of what administration should do vs. what operations should do
    - The delineation between administrative and operational focuses is more efficient and effective
        - Before, entities were too territorial
    - It works well now where administration gets operations what they need
    - MERA has benefited because the various specialties can focus on what they do best
- MERA is a good product with a good story to tell
- MERA operates an up-to-date, modern system
- The training and user groups are functioning well
    - 2,400 people have been trained in the use of the MERA system
- MERA recognizes that they are in transition. Some key components of the backbone system are at the "end-of-life" stage. Accordingly, critical planning and subsequent action and implementation are needed

Weaknesses

The Committee also noted a variety of weaknesses that would need to be addressed. These included the following:

- MERA's mission should be redefined or delineated better
    - Need to clarify what MERA is not
    - There has been a misunderstanding as to what MERA is; what it has been designed to do
    - An example is how the Grand Jury took MERA to task because they believed the schools should be MERA members, whereas, in actuality, MERA was not designed to do what the schools really needed to be done. Nonetheless, MERA offered free system access to the MCOE if they would pay for their own radios.
- Uses of MERA need to be determined that are consistent with the mission
    - There is a process whereby potential uses go to the Operations Committee and then to the Executive Committee for review
    - CHP got access to MERA on the Sheriff's frequencies based on this process
    - The School Districts, though, did not get access because the use was not mission-consistent and wasn't what was needed by the schools
    - Based on the above examples, the process to determine the appropriate uses is working
- Governance may be an issue since the current configuration may not be able to deal with the types of problems it will face down the road
    - For example, how can a non-City Manager be the City's advocate?
    - Who is the best member to represent the member agency and look out for all aspects of the agency?
        - This occurs for example, where there are multiple agencies within a City using MERA and adjustments can affect one agency positively while affecting another one negatively
    - Singular purpose districts don't have this problem
    - Is the person representing their member organization in a proper position of advocacy within their organization?

  - There is a need to formulate policy related to the Board representation issue
  - Someone overarching can analyze what any adjustments might do to police, fire, public works and other users within the City
  - Sometimes Board members are not in attendance for critical issues and related votes that affect them.
  - MERA Board members don't always communicate necessary information back to their organizations
  - Five (5) agencies represent 80% of the use of the system
    - How is this factored into governance and operations?
  - A large governing structure makes things complex
  - There are a lot of players related to each issue, which requires receiving input, determining positions and getting additional input before decisions can be made.
- Some MERA committees are behind others
  - For example, the Executive Committee has much on their plate with both administration and operations feeding into them
  - The Executive Committee is 11 members and could be smaller
  - Is this the right Committee formula for the next major project?
- There is a belief that efficiency equals effectiveness, so efficiency needs to be improved
  - Other services need to be looked at to see how they fit into MERA's overall strategy
  - Is the number of people right in operations, and administration and governance?
    - 8 of the Executive Committee members are voting members
- The commitment that is currently there may be lost if members perceive that particular issues don't affect them
- There are goodwill issues and the "baggage" continues to need to be addressed
- There is not enough capacity in the system, but the MERA system or any system will never have enough capacity
  - This needs to be worked through procedurally to determine how much is enough
  - There needs to be some priorities established around any moves made in the future

- MERA's (outdoor, portable, on the street) system coverage is considered to be only at 97% of the area that MERA contracted coverage for from Motorola, which doesn't include the entirety of Marin County
    - A companion issue is where do you measure the coverage; where is the 3% that is missing?
    - Coverage problems are not always clearly stated or understood
        - Are the problems the purview of the jurisdictions or of MERA?
    - There is a question related to coverage as to how good is good enough?
    - The level of coverage needs to be accurately assessed to determine who doesn't have coverage, who is affected and what is the level of coverage that is truly needed (for example, does Federal land within Marin County need to be covered by MERA?)
- Training needs to be increased to account for high turnover
- MERA has improved over the systems that were available before, but what is expected of MERA?
- Funding is an issue, since it will take $50 million to replace what is there today
    - Accordingly, boundaries need to be put around what MERA is
    - Economic stresses are creating issues in addressing MERA's needs

Opportunities

Based on the current activities of MERA and the outlook for the future, the Committee saw a number of opportunities that MERA could take that would be beneficial for the organization going forward. These included:

- Marin and MERA are much more actively involved in the regional interoperability structure than other public safety radio entities and should leverage this involvement
    - There are only a certain number of voting members and Marin is one
    - More regional partnerships could be developed to advance the MERA system
- Related to the current focus on interoperability, MERA should look at the big picture and see how related funding can best be leveraged (there is substantial system interoperability-related funding available)
- MERA should look at other strategic partnerships, both outside MERA and inside MERA

  - There should be opportunities to partner with the MTA and MIDAS, since they deal with communications issues now
  - The College of Marin is an educational user and could be a potential partner related to education-oriented funding, but they are not a high MERA user (only $6-7 K in contribution annually)
    - Could the College of Marin be a training partner?
- There will be opportunities to streamline governance
- Frequencies may be available to improve coverage
  - Again, MERA should use its position to pursue channels and capacity and negotiate expansion in capacity
    - A cost-effective level should be pursued
  - 700 Megahertz may provide an opportunity in the future
- There will be opportunities to fund long range capital within the timeframe MERA has to obtain the funding
  - This should also be leveraged for more long-term investments

Challenges

Finally, the Committee noted a number of critical challenges that would need to be overcome in order for MERA to continue to successfully operate in the future. These included:

- Getting to the right governance model
- Possible pushback from the MERA membership on substantial change
- Conflicts at times between MERA's needs and the individual members' needs
- The willingness and ability of the MERA members to participate in new initiatives
- Providing necessary education about MERA's mission
- Coverage issues
- Capacity issues
- Commercial entities and their competing needs for the use of frequencies
- Planned obsolescence of vendors' equipment, especially concerning non-support of older systems
- Keeping up with new technology

- Unified training for police, fire and public works so that the system can truly be utilized to its maximum capability
- Disciplined use of the system and enforcement of appropriate use
- The large amount of funding required to upgrade and replace the MERA system
- Maintenance and operations costs
    - County DPW is currently okay concerning cost effectiveness, but there is an increasing cost of performing required tasks

After the Committee delineated the strengths, weaknesses, opportunities and challenges, they were asked to think about and be ready to respond to several follow-up questions that would enable them to develop strategic directions that incorporated the results of the SWOC analysis, as well as each committee member's key priorities and a review and discussion of best practices, both technical and organizational, demonstrated by other public safety radio and emergency operations organizations. These questions were:

- What immediate/near/longer future organizational, operational and technical system structure maximizes the strengths and mitigates the weaknesses that have been identified?
- What supporting resources are possible in both the near and longer term to meet the needs?
- What is the best way to move from the current MERA structure and operations to a possible near/longer term structure and operations that would effectively seize the opportunities and address the challenges identified?
- In all these instances, what are both the upsides and downsides for individual MERA members?

As the Committee pondered these questions, CBG, the Executive Officer and the County DPW Director, developed a draft set of potential strategic directions and elements of a Strategic Plan for the Committee to consider at its next meeting. This information and the resulting seven (7) strategic directions emanating from the Committee's deliberations are discussed in the next section.

Recommended Strategic Directions, Including Associated Elements and Initiatives, for MERA

After review of the information presented and discussed at the initial meeting of the MERA Ad Hoc Strategic Planning Committee, including analysis of both organizational and technical best practices exhibited by other public safety radio and emergency operations organizations, a number of key Strategic Planning areas were identified. These included:

- Defining/redefining MERA's boundaries and then determining a Mission Statement consistent with the definition/redefinition;
- Reviewing options for potential changes in MERA's governance structure;
- Developing a technology plan that will include addressing capacity and coverage issues;
- Developing a long-term funding plan (7 to 8 years) to ensure available funds when the MERA system begins its extensive system replacement;
- Developing a public education and outreach campaign to gather broad-based support for MERA's system replacement;
- Expanding partnerships, collaboration and cooperative efforts to gain efficiency, forge bonds and leverage resources; and
- Exploring ways to strengthen the cohesiveness and common purpose of the membership.

Seven (7) strategic directions, initiatives and elements, along with ideas for objectives, an action plan, implementation steps, necessary resources and performance milestones and benchmarks for evaluation related to each of the strategic directions, were developed and provided for consideration by the Committee. The Committee then spent the next two meetings discussing these potential strategic directions initiatives and elements, to develop the following seven directions for MERA's Strategic Plan.

Strategic Directions for MERA

1. MERA's Mission

The Committee spent a significant amount of time under this subject area analyzing, and projecting for discussion purposes, MERA's boundaries concerning both its scope of operations and its scope of involvement and influence, particularly pertaining to membership. The point of this exercise was to discuss and potentially redefine and reshape MERA's original Purpose (as described in the JPA Agreement) and develop a true Mission Statement.

For example, it was postulated that MERA could extend beyond its provision and operation of Marin's public safety radio system to include a higher level of integration and consolidation with various dispatch organizations in Marin and could also seek a higher level of integration and potential consolidation with mobile data systems utilized for public safety purposes. It was determined that overall, while the continued integration of MERA with different parts of the overarching public safety network is beneficial, true consolidation of certain functions, such as dispatch, and making them an additional component of MERA would be difficult, lack a significant benefit and not be well received, at least at this point in time. This is due to the varying nature of these functions between organizations, as well as the need to maintain local control.

As examples, MERA was able to work with the multiple dispatch centers to get them on the same recording system. While all acknowledged that there was significant benefit to this activity, it was a time-consuming and difficult process for all involved. Additionally, Police Departments in the various dispatch centers see a significant need to maintain local control of both dispatch operations and use of their mobile data systems and cannot see that any benefits that may be realized by consolidation would outweigh the effectiveness of current localized operations.

Ultimately, it was determined that further consolidation of public safety functions such as dispatch and mobile data system operation and use should not be pursued at this time, but should be looked at as an opportunity to gain benefits during future strategic planning exercises.

Regarding membership, the Committee believes that MERA's current approach to membership is effective and should be maintained. Specifically, MERA has offered membership to public agencies who have public safety and emergency response facilities in Marin, but some have chosen not to be part of MERA for various reasons.

For example, certain Federal agencies, while invited, cannot be a part of MERA because of their internal requirements, rules and procedures. Additionally, some agencies can only be on one public safety system or another and so, based on their core mission function and activities, must stay on their existing system. Additionally, some prospective members believe that they want to be a part of MERA, but, once they understand what MERA is and what it does, ultimately did not see it as a good fit for them (this was true, for example, with the MCOE, who thought they should be a part of MERA, but reconsidered when they realized what they needed to do, versus what MERA actually does). Overall, the Committee believes that there has not been a push from any group to be a part of MERA that hasn't been responded to by MERA.

One of the ideas discussed was expanding MERA beyond Marin, concerning its region of operation. The Committee indicated that MERA initially made overtures to some of its neighbors, but based on interoperability requirements, region-wide system integration was beginning to occur anyway.

This is providing additional opportunities to integrate with other organizations in the region. For example, all the MERA-like entities in the Bay Area are talking to each other as part of UASI, and MERA members have become leaders in formulating operations under the North Bay UASI (Urban Area Security Initiative). This is allowing MERA to continually look at opportunities for additional integration. This includes manual integration in certain instances where entities are given MERA radios so that their system and the MERA system can be bridged. An example

includes the National Parks and State Parks public safety employees who are on their own system, but also have access to MERA radios.

Significant discussion was held concerning the current membership and whether it should in actuality be reduced. This is explored in detail in the next section discussing strategic directions concerning governance.

Near the conclusion of the discussion on MERA's Mission, the Committee indicated that perhaps the strongest focus for strategic planning should be on strengthening and expanding the current capabilities of MERA. In other words, the Strategic Plan should identify ways to help MERA attain its maximum capabilities.

The group discussed that a Mission Statement typically indicates: "who" the entity is; "what" the entity does; and, "why" the entity does what they do. Regarding MERA's Mission, the Committee stated that foremost it should be clear to all what MERA is and what MERA isn't.

Based on the entire discussion and deliberations, then, the Committee drafted the following recommended Mission Statement.

MERA's Mission

MERA is a collection of agencies formed in partnership to provide and operate a public safety radio system. As such, MERA provides a crucial communications delivery system that is interoperable between agencies in order to efficiently and effectively facilitate critical (emergency) communications.

Regarding the Mission Statement, the Committee noted two key points to consider. First, in the case of MERA, public safety is more than just Fire and Police; it is also other essential government services from DPW, a variety of special districts and other entities that are part of MERA.

Second, part of MERA's responsibility for providing critical communications is to stay current with technology, match vendor evolutions and create a migration strategy to continue to keep up with vendors and new technology.

a. ***Initial Actions Required*** **-** In order to follow Strategic Direction No. 1, MERA will need to take the following actions:

- Adopt the recommended Mission Statement consistent with approval of the Strategic Plan.
- Continue its current scope of operations.
- Adjust membership, if necessary, based on recommended changes to the governance structure (as discussed in the next section).
- Continue to pursue opportunities to develop further integration, both within Marin and regionally, as such integration benefits MERA members individually and the organization as a whole.
- Update the Strategic Plan in future years.

b. ***Timeline for Actions*** **-** MERA should adopt the recommended Mission Statement consistent with the adoption of the Strategic Plan. MERA should continually pursue additional integration opportunities, and schedule potential consolidation of dispatch operations and public safety mobile data operations for future reevaluation. The Strategic Plan should be formally updated every 5 years.

c. ***Necessary Resources to Implement the Strategic Direction*** **–** No additional resources are initially required to implement this strategic direction. Outside facilitation may be needed to assist MERA with formal updates to the Strategic Plan in future years.

d. ***Performance Milestones and Benchmarks*** **–** This strategic direction will be considered successful if the mission statement is adopted consistent with the adoption of the Strategic Plan.

Summary of MERA's Mission – While the JPA Formation Agreement contains a purpose, it is clear that MERA has evolved since its 1998 formation. It is a well-functioning organization that has a critical mission, and with proper support from its members and necessary funding, can efficiently and effectively addresses the challenges that it faces both today and into the future. Consistent with this, the Committee arrived at the following Mission Statement:

> **MERA's Mission**
>
> MERA is a collection of agencies formed in partnership to provide and operate a public safety radio system. As such, MERA provides a crucial communications delivery system that is interoperable between agencies in order to efficiently and effectively facilitate critical (emergency) communications.

It is recommended that the Mission Statement be adopted consistent with the approval of the Strategic Plan.

2. Changes to MERA's Governance Structure

The Committee spent a considerable amount of time discussing issues surrounding MERA's current and potential future governance. As part of this, there were a number of membership issues discussed, since membership composition will affect the governance needed and is significantly affected by the activities and operations of the organization.

For example, every member now has an individual representative on the Board and all have an equal vote. The Committee looked at whether this is logical when large individual members such as the County of Marin can be conceivably more significantly impacted by the directions that MERA takes. The County is also the biggest payer into MERA. Accordingly, because of the impact and the funding, a question arose as to whether the County should have a larger voice in the directions that MERA takes, rather than being just another member with a 1/25 voting share.

On the flip side, when significant funding needs to be expended in the future, the amount of that funding needed from each member will also be significant, such that even 1/25 will likely be a large sum of money. In other words, if smaller members have 1/25 of the vote, should they be expected to pay 1/25 of the funding needed?

As it relates to governance, MERA has in the past explored a voting formula that is consistent with expected funding contributions, thus establishing a nexus between governance and funding. The Committee believes that this concept, although not heretofore adopted, should at least be explored again.

In looking at the practices of other public safety radio and emergency operations organizations, in some instances, members pay based on use of the system. At the current time, though, some of the smallest MERA members have some of the largest use, and a "pay for use" formula could require them to pay well beyond what their budgets may allow. The Committee similarly believed that "pay for use" should be part of further exploration of a revised funding mechanism. Overall, this means looking at the current "Lando" funding formula to see if it needs to be adjusted or altered.

It is important to note that there can be a number of problematic issues associated with a pay for usage formula. First, such a formula would require reporting system upgrades and potentially a full-time position just for accounting and administration. Second, many feel that this type of formula would jeopardize public safety for the sake of money and note that mutual aid responders would be concerned with possible charges.

Besides representation and funding, the Committee indicated that some members continue to express confusion about the current MERA Board's role. Specifically, the Board meets twice a year and deals with fiscal issues and large policy issues and adopts budgets. A smaller Executive Committee that meets every other month handles the lion's share of ongoing issues. There is also a Finance Committee, which reviews all things financial, including audits. The Executive Committee has been working on a number of critical issues, including bond refunding and responding to system capacity and coverage needs and associated funding. The Finance

Committee occasionally gets into other areas, which have financial implications, such as its pending review of the radio cost policy.

MERA's operations are contracted out to the County DPW. The County DPW has an advisory group made up of representatives of public safety agencies that acts as a research and operations committee.

The Committee noted several areas of concern related to the current governance structure that it believes may need to be modified. These include:

- **The Size of the Board -** Committee members indicated that the Board's size presents problems when trying to obtain a quorum (13 out of the 25 are needed) to deal with major issues, such as approval of large projects and related expenditures. A possible way to reduce the size of the Board, while still representing all the member organizations, is to have rotating representatives that represent a number of the members (such as potentially all the Police agencies represented by one Police Chief who rotates; smaller municipalities represented by a rotating member of the group; and similar possibilities for consolidation of representation. It is notable that some larger organizations such as ALMR (Alaska Land Mobile Radio), which is a statewide organization, have a smaller Executive Council voting membership than MERA's Board of Directors. In this example, all the cities and towns are represented by one municipal league representative.

  A smaller Board size may also enable the Board to meet more frequently (such as quarterly) which may be necessary as MERA pursues some of the strategic directions herein, especially related to all the decisions that will need to be made concerning the future system upgrades and replacement.

- **The Composition of the Board -** The Committee discussed whether the current Board has the appropriate composition, especially considering the type of Board member versus decisions and policies that must be made. For example, should there be more representatives such as City Managers that have a good understanding of how MERA's

current and planned operations affect the functioning of all of the City's government (Police, Fire, Transportation, Public Works, etc.) and thus can make decisions that weigh equally the needs of those various differing departments? Should there also be more elected officials on the Board, since many of the future decisions may have a substantial monetary impact on each of the members, and elected officials continually make such budgetary decisions for their jurisdictions?

- **Committee Types and Number -** It was discussed how MERA currently has, in addition to Ad Hoc Committees as needed, two standing committees (Executive and Finance) and then the research and operations advisory group. It was discussed that there may need to be some adjustments in the committee structure, such as formalizing the operations committee as a standing group, as well as adding activities or subcommittees to existing groups. This could include the Executive Committee developing an outreach function and/or subcommittee, and the Finance Committee developing a sustainability function and/or subcommittee.

It was evident to the Committee Members that further review and evaluation of the governance structure was a critical, foundational activity that needed to be performed because potential modifications to governance may be critical to the success of the other strategic directions and initiatives. Two key activities are recommended as part of the Strategic Plan. The first is a Board Self-Assessment. This is seen as a best practice across all types of boards (government, nonprofit, private sector, etc.). For example the Maine Association of Nonprofits writes:

"A strong, vibrant board of directors is a clear indicator of a healthy organization. Yet even the best organizations need a periodic check-up to ensure that they cannot just survive but will really thrive in today's environment. To check your board's vital signs, or to put in place practices and strategies for a healthy and energized board, the best place to start is with a board self-assessment."[1]

[1] Retrieved from http://www.councilofnonprofits.org/resources/resources-topic/boards-governance/board-member-self-assessment.

A board self-assessment is typically recommended once every two to three years and is described in the Nonprofit Board Self-Assessment Guidebook in the following manner:

> "A self-assessment allows board members to step back from routine governance matters and candidly reflect on how well the board is meeting its responsibilities. It helps your board discover areas for improvement, and establish a common understanding of its roles and responsibilities. It establishes a platform for setting and attaining important board priorities, and motivates your board members – individually and collectively – to work effectively for the benefit of the organization and those it serves."[2]

The self-assessment should include, at a minimum, a review of the following best practices:

- *Fulfillment of the Board's Oversight Obligations*
    - Clear evidence that the Board is actively involved and providing ample representative oversight.
- *Financial Accountability and Transparency*
    - The Board, in concert with its Finance Committee, should be demonstrating leadership that ensures transparency and the integrity of the organization's financial statements and status. Also, the Board should be examining and evaluating overall funding sources and how/why budget dollars are spent.
- *Governance/Nominating Committee* - The Board should establish a governance/ nominating committee comprised of representative directors, who along with other responsibilities opine on:
    - Board size, director terms and term limits.
    - Standards for director qualifications.
    - Director candidates.
    - Number, structures and membership of committees.
    - Committee assignments and rotation of members.
    - Other governance policies and procedures.

[2] BoardSource, Assessment for Nonprofit Governing Boards: Online Tool (BoardSource 2009).

Note: An initial iteration of this group is recommended in the form of a governance-working group, as further discussed below.

- *Finance/Audit Committee*
    - Have established an effective, standing Finance Committee that is appointed and populated by representative directors.
    - Responsible for the sourcing of outside auditors.
    - Responsible for reviewing and commenting on the adequacy of the organization's financial status and internal control processes.
- *Fund Raising Expertise* - Government and nonprofit boards out of necessity have become more active in revenue development and fundraising. Tighter operational and capital budgets have motivated boards to seek diverse funding sources and now require that developing grant proposals, staging fundraising and development campaigns, etc., become a necessary skill set at the board level.

The other key activity is to establish a working group after the self-assessment is performed that will work through all the issues raised during strategic planning, as well as any additional issues raised from the self-assessment. Committee members indicate that the working group should be large enough to include a balanced group of those that can see the "big picture," such as City Managers, Fire Districts and Fire Departments, Police Departments, the Sheriff's Office and DPW, but small enough that it can tackle critical, and potentially controversial, issues efficiently and effectively. This working group would develop recommendations for any needed modifications to MERA's governance structure as well as a timeline for those recommendations to be implemented.

a. ***Initial Actions Required*** **-** In order to follow this Strategic Direction, MERA will need to take the following actions:

- Undergo a Board self-assessment.
- Develop and implement a working group to build upon strategic planning initiatives, and the findings of the self-assessment, to recommend any necessary modifications to MERA's existing governance and a timeline for implementation of those modifications.

- Approval and implementation of a new or revised governance structure.

b. ***Timeline for Actions*** **-** The recommended timeline for planning purposes, which may be adjusted by the working group, is the following:

- Board self-assessment begins upon approval of the Strategic Plan.
- Self-assessment completed and findings reviewed with the Board within six months of approval of the Strategic Plan.
- A working group convenes and develops recommendations for implementation of a revised governance structure from six months to one year after approval of the Strategic Plan.
- Board reviews recommendations, adopts bylaws (JPA Agreement) changes to implement recommendations, incorporating any necessary approvals from individual member organizations.
- Board begins operating under the new governance structure approximately 18 months after adoption of the Strategic Plan.

c. ***Necessary Resources to Implement the Strategic Direction*** **-** The anticipated resources that MERA will need to thoroughly review its governance structure and adopt a new structure as necessary include:

- MERA staff, Board Member and related member jurisdiction staff time to participate in the self-assessment and working group.
- Development of necessary agreements, including potentially JPA Agreement changes, as well as potential adjustments to other agreements with member jurisdictions, to cover all aspects of changes in the governance structure.
- Potentially outside facilitation services related to the initial self-assessment and the working group, depending upon the difficult nature of the issues raised and discussed and their impact on the existing governance structure.
- Legal services to create and review any necessary agreements and agreement changes.

d. ***Performance Milestones and Benchmarks*** **-** The key performance milestones and benchmarks that will determine the success of this Strategic Direction are the following:

- Is the self-assessment productive and ultimately performed within the recommended timeframe?
- Does the working group arrive at a consensus of recommendations for a new or revised governance structure that is ultimately adopted by the existing Board, within the timeframe proposed?
- Are all necessary agreements put in place within the proposed timeframe?
- Approximately two and a half to three years from the adoption of the Strategic Plan, do all agree that the structure is operating more efficiently and effectively for MERA members than the prior structure?

Summary of Changes to MERA's Governance Structure Strategy– The Committee discussed a variety of issues surrounding governance and potential changes to governance, based on the challenges that MERA has and the opportunities that can be taken in the future to address the challenges, leverage strengths and overcome weaknesses. These potential changes to governance center on: the size of the MERA Board; the composition of the Board; and the types and number of Committees. It was recommended that in order to review these potential changes, the Board first go through a self-assessment. Then, a working group should be developed to look at potential changes and recommend any necessary modifications. These two activities are proposed to occur beginning with the approval of the Strategic Plan, with the Board potentially operating under a new governance structure approximately 18 months after adoption of the Strategic Plan.

3. Development of a Technology Plan That Addresses Capacity and Coverage Issues

One of the most critical strategic planning tasks for the Committee was to determine a direction for the future of the MERA technical system and its anticipated replacement in the next seven to ten years. Overall, the main focuses of system upgrades and replacement would be to:

- Solve current capacity problems and improve capacity. In relation to this, goals should be set for the necessary, and realistic, number of radios and traffic.

- Solve current coverage problems and improve coverage. In this case, it will be important to determine the ultimate definitive coverage needed to meet MERA member goals.
- Provide a system that is as interoperable as feasible, given MERA member needs and associated costs for interoperability across frequencies, between agencies in Marin, throughout the Bay Area and potentially beyond.
- Incorporate the most advanced technology available at the time of the system upgrades and replacement, while considering the need to operate in a dual mode during the transition between the current system and the replaced system.
- As much as possible, avoid built-in obsolescence so that the new system would last for many years to come.

During the initial meeting, as background for the Committee members, the County DPW Director provided a significant amount of information about the current system including information covering the following topics:

- MERA trunking system
- Trunking technology overview
- System architecture
- Network equipment
- Dispatch centers
- Fire station alerting
- Coverage
- MERA operations
- Storm issues
- Maintenance SLA

Beyond this, information was also provided concerning comparisons with other public safety radio systems and the technical best practices of other public safety and emergency operations agencies. This included comparisons with the City of Cotati, Los Angeles County (Sheriff and Fire) and the Federal Department of Defense (DoD). This information provided the Committee with an example of a relatively simple public safety system as well as a more complex and a very

complex (DoD) system. The MERA system is considered to be much more sophisticated than a simple public safety system, but somewhat less sophisticated than the complex LA County and DoD systems.

Regarding the technical best practices of other public safety agencies, information was provided that indicated that, compared to others in the Bay Area, MERA has the best quality audio and the shortest amount of down time (the backbone network has had zero down-time). Beyond the issues noted earlier concerning capacity and coverage problems, best practices would indicate that MERA also needs to improve somewhat in the area of repair and testing. Specifically, additional radio shop staff would allow more expedient repairs; automation of additional test procedures would allow enhanced monitoring and preventative maintenance; and updated test equipment would allow such additional automation as well as coverage testing.

As the Committee reviewed existing MERA operations and discussed a technology plan for the future, there was additional focus on technical strengths and weaknesses of the MERA system. Specifically, beyond the coverage, capacity and interoperability problems discussed elsewhere in the Report and Strategic Plan, the fact that there is currently no program in place for long-term, complete system replacement was seen as a weakness (of course, strategic planning itself reacts to this weakness to develop such a program).

Regarding strengths, it was noted that:

- All system keys and programming are kept in-house.
- All radios are tested and aligned before release to the field.
- Whenever it's possible to use automated testing and alignment, it is utilized which promotes consistency.
- There is a strong PM program in place currently that provides superior system quality.

Prior to beginning detailed discussions concerning a Strategic Direction toward a new system, the group discussed some key factors and opportunities relating specifically to the current and future technical system that needed to be taken into account. These included:

- The most probable technology for the new system will at least have 700 Megahertz (MHz) operation as an integral component.

  The federal government would like all agencies to use 700 MHz systems and operate on 700 MHz for their emergency radio systems nationwide. Recently, the UASI program funded a 700 MHz interoperability study for Marin. The study came up with four options, which are discussed later in this Section and have been provided in detail to the MERA Executive Committee on May 12, 2010 and the MERA Board on May 19, 2010.

  It's important to note a couple of considerations. First, other public safety agencies have begun vacating 480 MHz, UHF T-Band operations for 700 MHz. Some, though, have already indicated to the federal government that they do not believe that enough bandwidth is provided for necessary communications under the current 700 MHz plan. In fact, they believe they will need three times the amount of channels currently being considered to properly operate at 700 MHz.

- Phase 2 of the Federal Narrowbanding Project is scheduled for 2015, but it's not yet been fully defined. Essentially, it is thought that moving to 6.25-kilohertz channel spacing on existing MERA UHF T-Band channels would double the number of MERA channels and help with capacity issues. Based on the timing, Phase 2 will not only affect current operation, but should be considered concerning the planned system replacement.

- The location of the new EOF, as described in the next Section, and its relationship to the MERA Prime Site, will certainly have an effect on the long-term migration and replacement of the MERA system.

- As also discussed in the next Section, efforts to resolve current coverage problems will have some impact on the long-term migration and replacement of the system.

- Depending upon the cost of the new system, some users potentially may choose to opt out of MERA. For example, the Marin Transit District provides a small amount of funding

to MERA, but they take up a sizeable amount of spectrum (they are the No. 4 or 5 user of the system regarding capacity at the present time). Accordingly, because their use of the system for critical communications is infrequent (as opposed to significant routine use of the system), there is a question of whether it will make sense for them to provide the significant amount of funding that they may be obligated to provide.

- During the transition from the old system to the new system, the new system would be developed and both systems would need to be running in parallel until a cutover could occur. This is standard procedure, but may affect the timing based on a continued decline in vendor support for the old system. Also, this will affect the operations budget since both systems will need to be operated and maintained for a certain period of time.

- While the biggest equipment cost for MERA members for the new system is anticipated to be the equipment at the remote sites (approximately 40% of the total cost based on a recent AECOM study)[3], member agencies will also have a significant cost for end-user equipment (approximately 25% of the total cost). Accordingly, each MERA member must prepare to fund both their share of the backbone costs and their specific end-user equipment costs.

The Committee discussed that the logical flow for planning purposes is to project the needed technology, then look at the financial and funding components, and then, once these two are determined, develop necessary policy related to the implementation of the new system. With that as a backdrop, the County DPW Director addressed some technical priorities that would occur in the next one to five years and then projected longer-term priorities in the next five to ten years that would affect the strategy for the long-term system replacement. Specifically:

- A basic step may be to implement a UASI-funded, 700 MHz, P-25 conventional interoperable overlay. Then, a trunk system upgrade would be needed as additional UASI funding becomes available. Additionally, MERA should continue to participate in 700 MHz channel allocation working groups, committees and license submittals that have an impact on the amount of spectrum and related channels that will be provided.

[3] See AECOM's "Final System Design Report" dated April 29, 2010, Table 7-1, p.62.

- MERA should continually review FCC and APCO databases to determine UHF T-Band channel availability.

These steps would then lead to longer-term technical priorities that include:

- Implementing the aforementioned Phase 2, P-25 architecture. It is important to note that Phase 2, P-25 can be implemented either within the 700 MHz or the UHF T-Band. One of the questions here, though, will be the actual availability of channels in either type of spectrum, since the FCC allocation is currently not clearly defined.
- Looking at whether UASI-funded, 700 MHz overlay systems will be available for MERA member agencies related to their needs that can be leveraged for use by the entire system. For example, Fire Departments already have a VHF overlay for interoperability.
- Looking at the upgrade ability of existing technology to be adaptable to the future system in a cost-effective manner. For example, Motorola's new ATX, UHF T-Band mobile and portable units will be upgradeable to Phase 2, P-25 in the future for a charge of approximately $500 apiece. That means that transition to a new UHF T-Band system could be phased in because of the compatibility of any new radios purchased.
- Taking into account that a UHF T-Band system may require fewer sites to cover Marin because of the propagation characteristics of those frequencies.
- Conversely, reviewing the impact of converting to a new 700 MHz system that may require a number of new sites where little, if any, of the existing backbone can be reused for the new system. However, at the same time, conversion to 700 MHz would greatly simplify out-of-County interoperability. This means that if the County stays on the UHF T-Band, it would need to establish a cache of 700 MHz radios to be used when agencies go outside of the County.
- Updating the network microwave equipment. This would be required, regardless of which type of system (UHF T-Band or 700 MHz) is chosen as the predominant system, due to the age of the existing equipment and the increased data requirements associated with the new technologies.
- Implementing state-of-the-art technology that will minimize vulnerability to network failure. The use of an increasing amount of digital technology also maximizes system security.

Whichever direction MERA would head in (again, predominant UHF T-Band or 700 MHz), the new system would resolve capacity issues by providing more channels utilizing the Phase 2, P-25 technology (this would not hold true, however, if the FCC changes current requirements and reallocates spectrum capacity in the future). The new system would be designed to resolve coverage issues (it would be important to do a significant amount of network architecture preplanning to ensure that coverage holes are finitely identified and fixes are built into the redesign and replacement of the system). Also, if state-of-the-art technology is used at the time of the system replacement, then this will minimize obsolescence going forward. Similar to the spectrum allocation issues, though, MERA would not have significant control over when vendors decide to obsolete or not support the products purchased at that time.

The review of the above considerations led the Committee to indicate that the two primary considerations that must be a part of any system replacement decision are:

- Whether to have the new system remain on the UHF T-Band, with some integration of 700 MHz for regional interoperability, or move to full 700 MHz system operation; and
- regardless, the system should incorporate a new P-25 controller capable of Phase 2 operation.

These considerations are also consistent with the options provided by the recent AECOM 700 MHz interoperability study[4]. Specifically, the options provided included:

- **Option 1 -** Add some 700 MHz repeaters to the existing MERA system to promote interoperability when out-of-area users come to Marin (this option does not, however, enhance MERA capacity or coverage);

- **Option 2 -** Upgrade the MERA system to address the existing capacity problems and add 700 MHz for interoperability;

[4] See MERA May Executive Committee Meeting materials, Agenda Item D-1.

- **Option 3 -** Upgrade the MERA system for capacity, add more sites to resolve existing coverage problems and add 700 MHz for interoperability; and

- **Option 4 -** Replace the complete MERA system with a new 700 MHz system. It is important to note here that a complete new 700 MHz system would require approximately double the number of tower/antenna sites versus the current MERA system. Accordingly, this option, given past experiences with infrastructure placement, could present significant hurdles for system implementation.

Based on all of the above, the Committee determined the following Action Plan as part of this Strategic Direction.

a. ***Initial Actions Required*** **-** To implement Strategic Direction No. 3, MERA must take the following actions:

- Develop a working group (potentially including the members of the current Advisory Committee on Operations as well as members of the Ad Hoc Strategic Planning Committee) to investigate in detail the various options provided by the interoperability study, as well as all the considerations discussed above, to develop a finite plan for a new system to be implemented in the next seven to ten years (with some interim adjustments for 700 MHz interoperability that would be added to the existing system, based on their ability to be incorporated into the longer-term solution).
- As part of the plan, the working group should recommend annual migration milestones, beginning with the adoption of the Strategic Plan through the cutover to the new system.
- Also as part of the plan, to the extent feasible based on the quick changes in technology that continually occur, a further migration strategy, projecting as far as 20 years into the future, should be developed, so that it can be reviewed and adjusted as needed and provide assurance that there will be a continual, sustainable program for upgrade and replacement of the MERA system well into the future.

- The plan should be proposed to the MERA Board, adopted and then implemented in consideration of all the other factors (funding, governance, communications, etc.).
- Ultimately, the new system would be procured and implemented within a seven to ten year timeframe (again, with interim adjustments made as needed).

b. ***Timeline for Actions*** **-**

- Develop a working group within 90 days from adoption of the Strategic Plan.
- A report from the working group that details a system upgrade and replacement plan, developed within nine months after adoption of the Strategic Plan.
- A draft and then final report and plan fully detailing the system migration strategy within one year from adoption of the Strategic Plan, including timelines for procurement and implementation within seven to ten years. This plan should intersect with the outreach and funding development efforts at all key points.

c. ***Necessary Resources to Implement the Strategic Direction*** **-**

- Staff time from all of the involved parties.
- Outside consulting expertise (such as CTA [AECOM], the consulting firm that performed the interoperability study) as needed.

d. ***Performance Milestones and Benchmarks*** **-**

- Development and implementation of the system migration/upgrade/replacement plan within the timeframes specified above.
- Complete cutover to a new MERA system within seven to ten years from the adoption of the Strategic Plan.

Summary of System Technology Replacement Plan Development Strategy – The Committee spent a significant amount of time looking at both current and anticipated MERA technical system issues to develop both short and long-term technical strategies. Their review concluded that there are five major near and longer term focuses for system modifications, upgrades and replacement including:

- Solving current capacity problems and improving capacity. Here goals should be set for the necessary, and realistic, number of radios and traffic.
- Solving current coverage problems and improving coverage. In this case, it will be important to determine the ultimate definitive coverage needed to meet MERA member goals. For example, if the full County, including Federal lands, need to be covered this will greatly impact the cost of the system.
- Providing a system that is as interoperable as feasible given MERA member needs. For example, the greater the interoperability (across frequency ranges, across county borders, across the Bay area, nationwide, etc.) the greater the cost.
- Incorporating the most advanced technology available.
- As much as possible, avoiding built-in obsolescence.

The status of the current system is in a continual state of evolution, especially concerning interoperability with other regional agencies outside of Marin. An interoperability study was just completed which recommended four potential options for improving interoperability. At this point, grant funds have been received to implement a non-trunked, separate P25, 700 MHz system overlay that will have the capability to be connected to a MERA channel to improve interoperability.

The Committee determined that developing a working group to investigate in detail the various options and develop a finite plan to move forward so that a full system replacement can be implemented in the next seven to ten years was the appropriate direction to take. This working group would be developed within 90 days from adoption of the Strategic Plan and provide an initial report within nine months. Then, a final system migration strategy would be developed within one year from adoption of the Strategic Plan.

4. Development of a Long-Term Funding Plan (7 to 10 Years) That Will Ensure Available Funds When the MERA System Begins Its Extensive Replacement

The Committee noted that MERA faces some significant funding challenges in the coming months and years. Specifically, these include:

- A potential move to the County's new EOF (Emergency Operations Facility) - The central decision that needs to be made here is whether MERA's Prime Site will stay at the Marin Civic Center and be connected by microwave to the new County EOF or whether the MERA Prime Site will be relocated to the new EOF. If the Prime Site stays where it's at, then a cost of at least $500,000 has been projected to develop the necessary microwave or fiber optic connection between the two facilities. If the MERA Prime Site is relocated to the new County EOF, the costs are estimated at $5 million or more. The DPW Director has indicated that the lower cost alternative should be viable. At this point, a study is currently underway by County DPW and its consultants to finitely determine which is the most cost-effective move for MERA. For example, if the larger outlay is provided now, then the new Prime Site equipment at the new EOF would be configured in a manner that the equipment could be used as part of the new system needed in the next seven to ten years.

- A variety of capital equipment projects to increase current coverage including:
    - The Town of Tiburon Coverage Project. This is currently awaiting resolution of the potential use of the vacant Martha property. Current cost estimates, once the property is obtained and the Town of Tiburon approves, are in the range of $2 million to $4 million.
    - The Tomales Coverage Project. Implementation of this project hinges on development of a site lease and various easement and access agreements with property owners such as MALT (Marin Agricultural Land Trust). Once the easement is developed, the cost is projected at approximately $2 million.
    - The Stinson Beach Coverage Project. An interim solution has been developed based on the use of a satellite phone, but this is not a long-term solution. A site and a new frequency will likely be needed to permanently resolve coverage issues. The cost cannot be estimated until the site and frequency issues are resolved, but likely would be significant, similar to Tomales and Tiburon.

- There is another possibility concerning Southern Marin coverage issues. MERA is working with the Golden Gate National Recreation Area (GGNRA) to determine whether equipment can be placed at Fort Miley, which also could provide service to Stinson Beach. If this occurs, while MERA would manage the operations of this site, because this installation would also serve Federal interests at that location, it's conceivable that Federal agencies would pay for the site location and the necessary equipment. One significant problem, though, is that the hardware required to provide a complete new MERA site is no longer available.

- The need for new operational frequencies – MERA needs to act immediately to secure new UHF T-Band and 700 MHz frequencies to facilitate operation of the future system. This is anticipated to cost approximately $250,000 for necessary licensing and coordination activities.
- The largest necessary expenditure is the replacement of the entire MERA system in the next seven to ten years, as further discussed in the previous Section related to Strategic Direction No. 3. The cost cannot be estimated in detail at this time, because it will depend upon the technology chosen, but a large-scale estimate pegs the cost of $50 million plus. Based on current funding sources, the necessary system replacement cannot be achieved without MERA borrowing a large portion of the required funding. It should be noted that MERA's existing bonds have recently been restructured to take advantage of lower interest rates (It will still be 2021 before the restructured bonds are paid off, which is the same year that the 1999 Revenue Bonds were scheduled to be paid off).

Another issue is that, regardless of whether an expense is related to timely and time-sensitive operational expenditures or a large capital development campaign for accumulating funds for implementation of a future new system, the funding formula is currently the same for all these various types of procurements. Accordingly, the Committee indicated that a strategy is needed that will allow existing mechanisms to deal with timely and time-sensitive operational and capital expenditures, while exploring the use of new mechanisms in addition to existing

mechanisms to develop funding for the large capital expenditure needed for the replacement of the MERA system.

Such mechanisms could include, for example, having MERA members incorporate a focus now related to big, long-term needs. They could work with MERA to obtain grant funds that would benefit MERA as a whole, while also benefitting individual members.

Other ideas, including some described in the recent AECOM report[5], include lease purchase agreements, impact fees and revenues from asset forfeitures collected by individual MERA members.

One significant idea is to start a capital development campaign for the large replacement expenditure that all members could participate in, in some way. This would start with an internal education effort to get all of the MERA members and their supporting political organizations on-board. Part of this effort would include helping MERA members gain an understanding of how the future system impacts them in a variety of ways: their individual use of the system; their work with other agencies; and the impact of the new system on all their various constituencies (residents, multiple agencies and the services they provide, etc.). These inter-relationships and ways to communicate the impact of the new system on all the various constituencies are discussed in greater detail in the next Section.

The Committee discussed that many of the current capital needs are often funded by the five largest members of MERA. On the flip side, it was discussed how the smaller agencies may not be able to buy into a new system that ends up being so expensive that the cost cannot be handled within their existing budgetary means or their capabilities to develop necessary funding. Overall, the Committee determined that, beginning with the approval of the Strategic Plan, an immediate, near future and long-term funding plan needs to be put in place. The actions and resources required to develop this three-pronged funding plan are described below.

[5] See AECOM's "Final System Design Report", dated April 29, 2010; Section 7.2 Funding Alternatives, p. 56-58.

a. ***Initial Actions Required*** **-** Implementation of Strategic Direction No. 4 will require MERA to take the following actions:

- **Immediate Funding Plan** - Use existing funding mechanisms to continue addressing timely and time-sensitive operational and capital funding concerns. As part of the current and potentially modified Finance Committee structure, develop a Sustainability Subcommittee focused on near future and long-term funding objectives. This Sustainability Committee should research available funding mechanisms and options that have proven effective in similar situations, including the two described above (partial or full use of available grant funds, for both those provided on an entire MERA organizational basis as well as on an individual member basis, and structuring and implementing a multi-year capital development campaign that establishes a goal for development equal to the amount needed to fund the system replacement).
- **Near-Future Plan** - Based on the Sustainability Subcommittee's findings, new funding development mechanisms should be put in place to establish both short-term (two to five years) and longer term (seven to ten years) funding amounts needed. The funding plan and mechanisms implemented should be monitored to determine their effectiveness, adjusted as necessary, and incorporate any changes to the funding structure that may occur associated with changes in the governance structure.
- **Long-Term Funding** - Once put into place, the long-term funding plan should be augmented with any new funding sources determined and continually evaluated to ensure that necessary funding will be available when initial payments are required for the system replacement.

b. ***Timeline for Actions*** **-** The recommended timeline for planning purposes, which may be adjusted by the Subcommittee and the system technology plan working group, is the following:

- Establishment of the immediate funding plan should be consistent with establishment of the Sustainability Subcommittee within 90 days after approval of the Strategic Plan.

- The short-term and long-term funding plans should be developed, taking into account any changes in governance, within the first 12 to 18 months after approval of the Strategic Plan. This should be monitored and augmented continually thereafter to ensure that funding and financial goals continue to be met.

c. ***Necessary Resources to Implement the Strategic Direction*** **-** The anticipated resources include:

- Executive Officer, Finance Committee and Sustainability Subcommittee staff time.
- Legal services to develop and review the necessary changes to agreements to implement the new funding mechanisms.
- Potentially, grant writing services to increase the flow of grant dollars (although the County and MERA have already had some success in this area, so current grant writing services of the individual members should continue to be leveraged).
- Accounting services to ensure compliance with all necessary financial requirements.

d. ***Performance Milestones and Benchmarks*** **-** The key performance milestones and benchmarks that will determine the success of this Strategic Direction are the following:

- Continued meeting of timely and time-sensitive operational and capital requirements based on existing funding mechanisms.
- Meeting of near future and longer-term capital funding requirements based on the use of several new funding mechanisms in conjunction with existing funding mechanisms.

Summary of Long-Term Funding Plan Strategy – The Committee discussed that there were various current timely and time-sensitive projects placing pressure on MERA's funding, including a potential move to the County's new Emergency Operations Facility (EOF) a variety of capacity and coverage improvement projects and the need to coordinate the acquisition and licensing of new UHF T-Band and 700 MHz frequencies. These projects together constitute over 12 million dollars in potential expenditures.

Additionally, the largest necessary capital expenditure that MERA faces will be in the next seven to ten years when it must undergo a full system replacement. The cost at this point is not fully determined, but it is estimated at $50 million plus.

In reviewing these funding requirements, the Committee determined that beginning with the approval of the Strategic Plan, an immediate, near future and long-term funding plan needs to be put in place. The immediate funding plan would use the existing funding mechanisms to continue addressing timely and time-sensitive operational and capital funding needs. A near-future plan would incorporate new funding mechanisms (such as a capital development campaign and increased grant funding). As the DPW Director noted, increased grant funding is already being obtained for MERA, primarily out of grant funds available for UASI (Urban Area Security Initiative) interoperability grants. A long-term funding plan would extend the mechanisms determined as part of the near-future plan, such that funding needed for system replacement could be obtained and utilized in the next seven to ten years.

The funding plan would be spearheaded by a new Sustainability Subcommittee that would be developed within 90 days after approval of the Strategic Plan. Both the short-term and long-term funding plans would be provided to the Board within 12 to 18 months after approval of the Strategic Plan. These plans would need to be continually monitored and augmented as necessary to ensure that funding and financial goals continue to be met over the next decade.

5. Development of a Public Education and Outreach Campaign to Gather Broad-Based Support for MERA and Its System Replacement

The Committee discussed that it would be beneficial for MERA to develop a communications strategy that would provide education and outreach concerning its value to both the public at large and MERA's internal stakeholders (members, member jurisdiction officials, allied agencies, etc.). Historically, because MERA is considered a part of general services, there has not been significant external communication about MERA (or most general services in the County, Cities and Towns for that matter). This means that many people do not know what MERA does. Additionally, some that are aware of MERA have a negative impression, because of the previous battles over the placement of towers and their aesthetic impact and prior capacity issues that have arisen during weather events.

The Committee acknowledged that effective communications are the key to shaping the message that MERA wants to convey. There needs to be an understanding of what MERA means to both internal and external constituencies.

This discussion led to development of two central questions:

- Regarding the public, why do, or should, people care about MERA?
- Regarding internal constituencies, what is in MERA for its members?

Concerning internal communications, there needs to be an understanding communicated to the members regarding the service levels provided. This also means giving the members a better understanding of what benefits flow through MERA to the members' constituencies.

Consistent with this, it will be important to note that economy of scale is a benefit of MERA.

MERA's value is known by other public safety radio and emergency operations entities. For example, the City of Los Angeles wanted to set up a similar operation to MERA based on its perceived benefits and has contacted MERA to discuss certain facets of the operation.

Regarding external constituencies, including the general public and organizational entities throughout Marin, the key point is to educate the public on the fact that in order to get anywhere with public safety communications, you need to utilize MERA's system. This directly impacts them when they make a 911 call, for instance.

Overall, the Committee agreed on three key points.

- The communications plan needs to be inter-relational related to MERA's various internal and external constituencies and objectives.
- It will be important to have a raised level of awareness concerning the value of MERA prior to the point MERA starts seeking substantial funding for the system replacement.
- When raising the awareness level, it will be important to not raise the alarm level. In other words, the education and outreach campaign must be measured and targeted to desired objectives and the benefits they bring to internal and external constituencies.

A variety of potential communications tools were discussed in order to convey the types of messages described above. These included:

- MERA's Website – It is in the process of being upgraded and additional communications tools, such as flash video and links to other entities with similar education and outreach objectives can be included.
- A booth at the County Fair - This was suggested as a way to raise positive awareness of MERA before a large segment of the general public and the Marin community.
- The Community Media Center of Marin (CMCM) has a PSA day, where they produce PSAs for nonprofits and other entities. It was mentioned that it would be good for MERA and its individual members to become involved in the PSA day.
- Working with CMCM or other video production entities, MERA could develop a type of "infomercial" video and show it on both the Access Channels and its website (potentially also uplinked to services such as YouTube). This video would describe in visual terms how when you pick up a phone for a 911 call and it goes to dispatch, from there MERA is critically important to enable first responders to reach you.
- MERA's website could potentially provide a "Wiki" interface for feedback from the public.
- MERA representatives could make presentations at community meetings.
- MERA could work with press organizations providing press releases and information for feature stories.

a. ***Initial Actions Required*** **-** To implement Strategic Direction No. 5, MERA would need to take the following actions:

- Develop an Outreach Subcommittee, potentially as a part of the Executive Committee's function, along with resources from MERA member agencies (such as Public Information Officers, Outreach Coordinators, etc.) to develop the message(s) that MERA desires to convey.
- Over time, implement the message(s) through the various methods described above.

- Receive feedback from the target audiences (internal and external constituencies) regarding the message, and adjust as necessary based on feedback regarding the success of the message, potential confusion over the message, messages having negative rather than positive consequences, and other types of feedback.
- Potentially, use some informal surveys to determine the effectiveness of the messages in developing both internal and external support.

b. ***Timeline for Actions*** **-** The recommended timeline for planning purposes, which may be adjusted by the Outreach Subcommittee, is the following:

- Implement the Outreach Subcommittee within three months after adoption of the Strategic Plan.
- Develop and implement generic value and image-based messages about MERA within six months after adoption of the Strategic Plan.
- Continue delivering value and image-based messages about MERA utilizing the various methods described above through the first 18 months after adoption of the Strategic Plan.
- Once the near-term and long-term funding plan is determined, develop a message associated with garnering support for the various funding mechanisms to be employed, especially related to a capital development campaign.
- Three months after identifying the funding mechanisms and approximate funding requirements (potentially between two and three years after adoption of the Strategic Plan), begin delivering messages about the funding needed.
- Evaluate and adjust the support campaign based on feedback and make adjustments to the campaign as necessary to garner support while the funding needed is being developed.

c. ***Necessary Resources to Implement the Strategic Direction*** **-** The anticipated resources include:

- Executive Officer, Executive Committee and Outreach Subcommittee staff time, as well as member expertise to develop the messages.
- Potentially, PR firm assistance for the capital development campaign.
- Website development assistance to implement the additional communications tools (such as flash video and Wiki implementation).
- Video/audio production support and air-time procurement

d. ***Performance Milestones and Benchmarks*** **-** The key performance milestones and benchmarks that will determine the success of this Strategic Direction are the following:

- Achievement of the various stages of the education and outreach plan within the timeframes described above.

Summary of Public Education and Outreach Campaign Strategy– The Committee discussed developing an education and outreach campaign both for the general public and the community at large, as well as for MERA's internal constituencies. This campaign would be designed to demonstrate the value of MERA to all of its constituencies and garner support for both MERA's ongoing activities and the funding needed for the extensive future system replacement.

A variety of communications tools and potential messages were discussed by the Committee as elements needed to implement a successful education and outreach campaign. This included tools such as:

- Greater use of MERA's website by adding additional capabilities;
- Work with the Community Media Center of Marin (CMCM) to develop PSAs and longer form videos describing what MERA does and its value to the community. It would be especially useful if MERA's individual members could also develop PSAs that describe how each of the members use and rely on MERA's system;
- Making presentations at community meetings and appearing at community events such as the County Fair; and

- Working with press organizations to print press releases and develop positive image feature stories.

The Committee recommended developing an Outreach Subcommittee to assist in developing messages that MERA needs to convey and also in helping implement new communications tools. Necessary activities would begin within three months after adoption of the Strategic Plan, delivering initial messages within six months and more extensive image-based information within 18 months. Thereafter, MERA would continue its outreach throughout the capital development campaign.

6. Expanding Partnerships, Collaboration and Cooperative Efforts to Gain Efficiency, Forge Bonds and Leverage Resources

The Committee discussed the importance of partnerships and collaboration and cooperation with other entities in order to gain efficiencies wherever possible and leverage existing and future resources and assets. For example, the Committee discussed how building on existing relationships could provide additional functionality and more interoperability. The College of Marin (COM), for example, is already a partner and could be a greater partner by potentially becoming an expanded training resource for MERA members.

Expanding partnerships with hospitals would be beneficial. For instance, hospitals are already well versed in the development of communications plans, organizing and implementing successful capital development campaigns and other activities and functions that will be important to MERA going forward. Accordingly, they could provide significant assistance, which would ultimately be as beneficial to them as it is to MERA.

The Committee talked about getting greater support from its current members, such as developing cross-promotions on member public safety organizations' websites. The Committee talked about the importance of establishing greater partnerships with special needs populations, which again could be beneficial to all the entities involved.

It will be important to also look at exploring partnerships with the private sector. Such partnerships bring the business community into the mix and could have a secondary benefit of helping generate revenue.

MERA could also reach out to ham radio enthusiasts, since ham radio operators share some of the same technical and infrastructure concerns as MERA and could be allies on certain issues.

Overall, the Committee discussed the concept that it will be important to develop a range of allies to work with MERA on the various activities and initiatives under the Strategic Plan.

a. ***Initial Actions Required*** **-** In order to implement this Strategic Direction, MERA would need to take the following actions:

- After adoption of the Strategic Plan, within six months, identify expanded and new partnerships that will help promote training, resource sharing and funding, efficient service provision, service expansion and interoperability.
- Within a year from adoption, work with these partners to develop a plan that defines responsibilities and benefits to all partners.
- Within 18 months after adoption of the Strategic Plan, develop any necessary agreements with these new partners to implement the activities under the partnership.
- Within two years, implement all the expanded and new partnerships identified.

b. ***Timeline for Actions*** **-** Pursue the actions above within the timeframes identified.

c. ***Necessary Resources to Implement the Strategic Direction*** **-**

- Staff time from the Executive Officer, various MERA members, most likely as part of the Sustainability Subcommittee, and from the expanded and new partners.
- Legal services to craft and develop new agreements and partnerships as necessary.
- Accounting services as needed to ensure financial compliance by both partners under the partnership.

d. *Performance Milestones and Benchmarks* -

- Identification, development and implementation of expanded and new partnerships within the timeframes specified that demonstrate enhanced training, resource sharing, funding, efficiencies, functions and interoperability.
- Ongoing outreach and development of new partnerships beyond those identified and implemented within the first two years after adoption of the Strategic Plan.

Summary of Expanding Partnerships Strategy

The Committee discussed developing additional partnerships and expanding activities with existing partners in order to help meet current and future goals. This included expanding activities with the College of Marin; expanding partnerships with hospitals (who are already well-versed in the development of communications plans and capital campaigns); exploring partnerships with the private sector; and developing greater cross-promotions with member public safety organizations' websites.

The Sustainability Subcommittee would be the focal point for work on partnership expansion efforts. Regarding a timeline, such efforts would begin to occur within six months after adoption of the Strategic Plan and result in new and expanded partnerships within two years after adoption of the Plan.

7. Exploring Ways to Strengthen the Cohesiveness and Common Purpose of the Membership

The Committee discussed how, over time, MERA members have become a more cohesive group that was able to focus on its common purpose as well as its individual needs. The Committee discussed, though, that there was still some "baggage" left from the initial formation that created a variety of divergences among the members and sometimes-created conflicts between what individual members perceived as the best course of action for their own welfare versus what's needed for the common good. Accordingly, the Committee believes that it will be important under the Strategic Plan to work to strengthen common bonds wherever feasible.

Specifically, these divergences revolve around two main elements:

- The size of the member, because of the differing characteristics between small and large members. It is important to note here that the divergences between small and large members aren't always money-related, but instead can be related to differing operational considerations.
- The difference in various member agency purposes and missions. For example, there is significantly different underlying focuses of water, transit, public utility and other special districts, versus public safety organizations, versus the overall missions of Cities, Towns and the County.

One of the underlying issues is the challenges and problems created for MERA based on the varying and sometimes conflicting needs between members concerning radio system traffic prioritization and utilization. This has become a significant issue when it comes to which user gets priority when the utilization of system capacity is at its peak. In other words, what is the best way to determine whose need is more critical when several members need to access limited capacity? Is it based on criteria established to determine who is the most critical responder in the event of a given situation that creates an overload on the system capacity? Because of problems that have occurred, is there a need to reevaluate the current criteria? Should priority be based on frequency of need (in other words, who most often is a critical responder?)? Is it purely a matter of whoever supports the system to the greatest degree gets the greatest access to the system (in other words, "dollars in equals service out")? Evaluating the divergent views on these critical questions related to system traffic, utilization and capacity and determining a consensus view that treats all members equivalently, such that each member believes that they will have access to the service they need at critical times and that overall the system is working for the common good, could serve to strengthen the feeling of cohesiveness of the MERA membership.

The Committee noted that there is somewhat of a concern expressed among the membership about the largest players having the most control and working to shape MERA to be most consistent with their vested interest versus the interest of the membership as a whole. The County, as the largest member, has sometimes been viewed in this regard. The County points out, though, that it puts in about 40% of the funding for MERA (including funding that supports

use by the Sheriff, DPW and Marin Transit District). On the flip side, other members like to point out that the County, because it is the maintenance and operation contractor, receives money back from MERA to support MERA's operations. This equates to over one-half of MERA's operations budget going back to the County. (The County points out that these are fees for services rendered and would likely be more if the County didn't take into account costs that it is absorbing because it's also supporting its own use.) Related to this, then, it will be important for the smaller members to feel comfortable that they are being treated equivalently and not being dominated by the needs of the largest members.

Overall, the Committee believes that MERA should work to strengthen the common bonds through greater internal communications and looking for ways to strengthen areas that are already acknowledged as working well from a common membership perspective, while looking for ways to offset diverging factors and foster more commonality. As noted in the Action Plan below, a working group of divergent MERA members can be established to pursue these two objectives.

a. ***Initial Actions Required*** **-** To implement this Strategic Direction, MERA would need to take the following actions:

- Develop a working group to identify the strongest commonalities and the greatest divergences and then look for ways to resolve divergent issues and strengthen common purposes.
- Develop an internal communications system (such as an internal portion of MERA's website [also discussed in the Strategic Direction related to communications planning] that might incorporate a blog or other interactive mechanism to enable members to float ideas, have dialogue, provide examples of common bond strengthening in other public safety organizations, etc.).
- Have the working group develop a plan, including ideas floated by the members through the internal communications system, to strengthen current and implement additional common purposes that increase the value of MERA to all of its members.

- Provide the plan from by the working group to the Board, so that it can be adopted and implemented.
- Reevaluate the plan on an annual basis to modify and augment it as necessary to continue to strengthen common bonds.

b. ***Timeline for Actions*** **-**

- The working group is formed from a divergent group of MERA members within three months after adoption of the Strategic Plan.
- The internal communications system is developed as part of the internal outreach and education activities that occur under Strategic Direction No. 5.
- The working group develops its recommendations within one year after adoption of the Strategic Plan.
- The recommendations are implemented within two years after adoption of the Strategic Plan and evaluated annually thereafter.

c. ***Necessary Resources to Implement the Strategic Direction*** **-**

- Staff time from the Executive Officer and members of the working group.
- Possible outside facilitation assistance for the working group as needed.

d. ***Performance Milestones and Benchmarks*** **-**

- The internal communications system and working group activities are developed and conducted within the timeframes specified above.
- Recommendations are adopted and implemented within the timeframes specified above.
- A survey of the membership after three years from adoption of the Strategic Plan (one year after adoption and implementation of the recommendations) indicates that the members feel that MERA is more cohesive and reflective of both their individual and common needs.
- Additional and expanded measures are implemented over time to continue to strengthen the common bonds.

Summary of Strengthening the Common Bonds of the Membership Strategy – The Committee discussed that it would be very important to continue to build the cohesiveness and common focus of the MERA membership. A variety of divergences, such as member size and differences in member agency purposes and missions, continue to exist within the MERA membership and sometimes create various types of conflicts. Some of these conflicts are rooted in cost allocation for system enhancements that may be perceived to benefit some MERA members more than others.

Accordingly, the Committee believes that it is important to look for ways to strengthen areas that are already acknowledged as working well from the common membership perspective, while looking for ways to offset diverging factors and foster more commonality. In order to pursue this strategic direction, it was recommended that a working group be developed to identify the strongest commonalities and look for ways to resolve the greatest divergences. Additionally, a highly useful internal communications system should be developed to enable members to share ideas, have dialogue, and provide examples of common bond strengthening in other public safety organizations. The working group and internal communications system should be developed such that recommendations made by the group are implemented within three years after adoption of the Strategic Plan and evaluated annually thereafter.

Financial Considerations Related to the Strategic Directions and Initiatives

During the development of the Strategic Planning directions and initiatives, the funding requirements for each one of the directions and the relative budgetary timing were considered. These initial projections are included in Attachment A (MERA Strategic Plan Projected Funding/Resources Needed) to this Report and Plan. Note that all funding projections are in 2010 dollars, so cumulative inflation should be considered at the actual time of expenditure. The following is a summary of the resources needed, categorized by strategic direction.

Note that, especially in the first two to three years after Plan adoption, there will be a significant demand on MERA organizational and member resources if all of the Directions are implemented as recommended. This will include additional staff time, potentially up to one full-time equivalent (FTE) over the first two to three years after Plan adoption, in order to coordinate and be involved in implementation of all the Strategic Directions. Beyond this, note that the greatest level of funding is needed for capital improvement projects revolving around improving coverage and capacity, procurement of new frequencies interface with the new EOF and the future extensive system replacement. After that, funding is recommended for additional legal and accounting services, outside facilitation services, grant writing services, web-site development assistance, and similar types of contract services.

Also note that the actual funding and budget requirements will be established as the MERA Board considers the implementation of the Strategic Plan over time based upon priorities, availability of funding and other resources. The following synopsis and the Attachment will assist the Board as it considers implementation of all of the Strategic Plan directions.

1. **MERA's Mission**
    a. **Current Activities –** Will draw upon existing MERA resources.
    b. **Update to the Strategic Plan** - Recommended in Years Five (5) and Ten (10) after Plan adoption with outside facilitation assistance projected at $35,000 in Year Five and $40,000 in Year Ten.

2. **Changes to MERA's Governance Structure**
    a. **The Board Self-Assessment and Governance/Nominating working group –** Will draw upon existing MERA resources and additional staff time.
    b. **Potential outside facilitation services** – If necessary, are projected in Year One at $20,000 - $30,000 for both the initial Board Self-Assessment and the working group.
    c. **Legal services** – Additional services are projected in Year Two at $30,000.

3. **System Technology/Upgrade and Replacement Plan**
    a. **Development and implementation of the technology-working group** - Will draw upon existing MERA resources.
    b. **Outside technical consulting expertise** –Projected in Year One at $30,000 - $50,000
    c. **Interface with the new EOF** - Projected at $500,000 plus to $5 million, beginning in Year One.
    d. **Capacity and coverage projects** –Projected at a total of over $7 million, beginning in Year One.
    e. **Procurement of new frequencies –** Projected at $250,000, beginning in Year One.
    f. **Complete system replacement** –Forecast at $50 million plus, beginning in Year Seven (7).

4. **Long-term Funding Plan**
    a. **Sustainability subcommittee development –** Will draw upon existing MERA resources and additional staff time.
    b. **Grant writing services** – If necessary, are forecast at $15,000 annually in Years One through Six.
    c. **Accounting services** – Additional services projected at $10,000 in Year Two.

5. **Public Education and Outreach Campaign**
    a. **Development of the Outreach subcommittee -** Will draw upon existing MERA resources and additional staff time.
    b. **Potential PR Firm assistance –**Projected at $50,000 in Year Two.
    c. **Potential Website development assistance** –Projected at $30,000 in Year One.
    d. **Potential Media Production/Air-time costs** – Projected at $10,000 plus annually in Years Two through Seven.

6. **Expanding Partnerships**
    a. **Current partnership development activities -** Will draw upon existing MERA resources and additional staff time.
    b. **Additional legal services to develop new partnership agreements –** Forecast at $20,000 in Year Two.
    c. **Additional accounting services to ensure financial compliance of terms partnerships –** Forecast at $10,000 in Year Three.

    Such legal and accounting services, although not shown to continue in the Attachment beyond the initial years projected, would need to be expanded as additional partnerships may be developed beyond Year Three.

7. **Strengthen Common Bonds of MERA Membership**
    a. **Develop working group -** Will draw upon existing MERA resources and additional staff time.
    b. **Potential outside facilitation assistance for working group –** Projected at $10,000 to $15,000 in Year One.
    c. **A survey of the membership –** To determine effectiveness of the common bond strengthening activities would potentially use an outside survey firm in Year Three at a projected $15,000.

Potential Additional Strategic Directions and Initiatives to Study and Consider in the Future

The Committee identified several directions and initiatives that it believed merited consideration for pursuit by MERA, but not at this time, given the complexities of these potential activities as well as the number of more critical strategic directions that have an important and time sensitive nature that require the attention of MERA and a significant amount of associated resources. Accordingly, it is recommended that MERA may want to consider the following at a future point in time when undergoing future Strategic Planning activities. These include:

- Reevaluating the benefits of potentially consolidating dispatch operations in Marin. While there are a number of significant issues that would need to be analyzed related to the current, locally-based dispatch operations, there may be some efficiencies that could be gained that would be beneficial to MERA and each of the participating organizations.
- Reevaluating the benefits of consolidating mobile data operations in Marin, especially as changes in technology increase capabilities, cost-effectiveness and efficient utilization of resources. Here again, a number of key, local operational issues will need to be analyzed to determine whether the benefits of consolidation would outweigh the benefits of local control and determination and utilization of such resources.

An appropriate time to consider such future possibilities would be based on operational occurrences that would point to a heightened need to evaluate the above actions, or certainly when formal Strategic Planning may occur again in the next five (5) years.

Attachment A

MERA Strategic Plan Projected Funding/Resources Needed

MERA Strategic Plan Projected Funding/Resources Needed[6]

Strategic Direction/Initiative	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1. MERA's Mission										
- Current activities	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources	Existing MERA resources
- Update to Strategic Plan					Existing MERA resources					Existing MERA resources
- Outside facilitation assistance for Strategic Plan update					$35,000					$40,000
2. Changes to MERA's Governance Structure										
- Board self-assessment	Existing MERA resources			Existing MERA resources			Existing MERA resources			Existing MERA resources
- Potential outside facilitation assistance with 1st self-assessment	$10,000 - $15,000									
- Governance/nominating working group	Existing MERA resources plus additional staff time									
- Potential outside facilitation assistance for working group	$10,000 - $15,000									
- Legal services to craft any necessary JPA, changes and changes in agreements with member jurisdictions -		$30,000								
3. System Technology/Upgrade and Replacement Plan										
- Technology working group development	Existing									

[6] Note: All funding projections are in 2010 dollars. Accordingly, cumulative inflation will need to be taken into account during the actual year of expenditure.

Strategic Direction/Initiative	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	MERA resources									
- Outside technical consulting expertise	$30,000 - $50,000									
- Interface with new EOF	$500,000+ - $5 M*									
- Coverage and Capacity projects	$7 M+*									
- Procurement of new frequencies	$250,000*									
- Complete system replacement							$50 M +*			
4. Long-term Funding Plan										
- Sustainability subcommittee development	Existing MERA resources plus additional staff time									
- Legal services		Covered in Strategic Direction #2, governance changes (above)								
- Grant writing services		$15,000	$15,000	$15,000	$15,000	$15,000				
- Accounting services		$10,000								
5. Public Education and Outreach Campaign										
- Outreach subcommittee development	Existing MERA resources plus additional									

Strategic Direction/Initiative	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	staff time									
- PR Firm assistance for the capital development campaign		$50,000								
- Website development assistance to implement additional communications tools	$30,000									
- Video/audio production support and air-time purchase		$10,000+	$10,000+	$10,000+	$10,000+	$10,000+	$10,000+			
6. Expanding Partnerships										
- Current activities	Existing MERA resources plus additional staff time									
- Legal services to develop new partnership agreements as necessary		$20,000								
- Accounting services to ensure financial compliance with terms of partnerships			$10,000							
7. Strengthen common bonds of MERA membership										
- Develop working group	Existing MERA resources plus additional staff time									
- Potential outside facilitation assistance for working group -	$10,000 - $15,000									
- Survey of the membership			Existing MERA resources							
- Potential outside survey firm assistance			$15,000							
Total potential additional monetary cost to	$7,840,000-	$135,000+	$50,000+	$25,000+	$25,000+	$25,000+	$50M+*			$40,000

Strategic Direction/Initiative	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
implement the Strategic Directions shown in each Year (not including additional MERA staff costs)	$12,375,000 *									

*These expenses may be spread out over multiple years. The year shown is the initial expense year.

Attachment B

Glossary

Glossary

The following are definitions for key terms and acronyms used in the MERA Strategic Plan

Backbone System – The portion of a network utilized to transport information between critical facilities. The Backbone System provides the aggregated path that enables the end user to communicate with other end users in other areas of the network.

Bandwidth – The spectrum of frequencies between the bottom and top frequency used on the system. Bandwidth has a direct relation to the system's capacity. The higher the bandwidth, the higher the available capacity.

FCC – Federal Communications Commission – The Federal Government Agency which regulates all non-federal government use of the radio spectrum and telecommunications**.**

GHz – Giga Hertz – Hertz represents a unit of frequency. 1 hertz equals 1 complete cycle per second. 1 GHz equates to 1 billion complete cycles per second.

Federal Narrowbanding Project – A Federal mandate to lower the bandwidth of public safety radio system channels from 25 kHz channels to 12.5 kHz.

- Key Points About FCC Narrowbanding Requirements (from the US Department of Justice's website: http://www.ojp.usdoj.gov/nij/topics/technology/communication/fcc-narrowbanding.htm**).**

    - Most current public safety radio systems use 25 kHz-wide channels.
    - The Federal Communications Commission has mandated that all non-Federal public safety licensees using 25 kHz radio systems migrate to narrowband 12.5 kHz channels by January 1, 2013.
    - Agencies that do not meet the deadline face the loss of communication capabilities.
    - Agencies need to plan now to migrate to narrowband systems by assessing their current radio equipment and applying for new or modified licenses.

Lando formula – The method by which the monetary contribution of MERA members to support system backbone costs and annual operating costs is determined. As stipulated in Section 9.2 of the MERA Joint Powers Agreement the method is as follows:

MERA Apportionment Formula (for distribution of backbone costs):

Agency: Each member is identified by user type. The type corresponds to the Member's purpose, i.e., Police, Fire, Public Works, Transit, Land Management, Private Brigade, etc.

Coefficient: A common number is applied to each user type depicting its approximate radio utilization compared to the other user types. The total user coefficients add up to 1 or 100%. The Coefficients are:

Police	=	.6
Fire	=	.25
Public Works	=	.1
Transit	=	.01
Land Management	=	.025
Private Brigade	=	.01
Unused	=	.005
TOTAL	=	100%

% of Population: This ratio expresses the percentage of the Member's population to total county population.

% of Area: This ratio expresses the percentage of the Member's area to the total county area.

C: This is the Member's buy in cost (same for all members)

Members' Determinant: (((% Population x 2) + % area) x Coefficient) + .005. The sum of the factors represents 100% of all the participating agencies Members by their type.

Apportioning Formula: The Members' Determinant Factor divided by the sum of all Member factors equals the percentage to be applied to the total costs and determines the Member's cost.

Apportionment Formula (for distribution of annual operating costs): MERA Members' annual operating cost equals 5% of total annual operating cost divided equally by MERA Members plus members agency costs as determined from percentages as provided in the "MERA Apportionment Formula".

MHz – Mega Hertz – Hertz represents a unit of frequency. 1 hertz equals 1 complete cycle per second. 1 MHz equates to 1 million complete cycles per second.

Microwave – For MERA's use, Microwave technology is utilized for the point to point transmission and reception of information. Microwave frequencies are those that can be focused in a narrow beam to enable high capacity wireless communications over significant distances.

P25 – Project 25 – A suite of standards for federal, state/province and local public safety agencies to enable interoperability between agencies. Non emergency entities have also deployed P25 equipment for their communications needs.

RF – Radio Frequency – A portion of the electromagnetic spectrum used to transmit and receive information by modulating radio carrier waves with electronic signals.

UHF – Ultra High Frequency – Frequencies between 300 MHz and 3,000 MHz (3 GHz).

UHF T-Band – Frequencies between 470 MHz and 512 MHz

UASI – Urban Areas Security Initiative – Supports planning, equipment, training and exercise needs of high threat, high density urban areas of the country. UASI's goals are to set a strategic direction for regional response to acts of terrorism and the use of weapons of mass destruction. Link to UASI's National Conference Website: http://www.urbanareas.org/con/index.php.

VHF – Very High Frequency – Radio Frequency range between 30 MHz to 300 MHz.