



**METROPOLITAN EMERGENCY SERVICES BOARD  
EXECUTIVE COMMITTEE MEETING AGENDA**

April 12, 2023, 10:00 a.m.

1. **Call to Order** – 2023 Board Chair, Commissioner Mike Warring
2. **Approval of Agenda** – Commissioner Warring
3. **Approval of December 14, 2022 Executive Committee Minutes (page 3)**
4. **Radio Items** – Tracey Fredrick, Radio Services Coordinator
  - A. Approval of City of St. Paul Waiver to SECB Standard LMR-53 (**page 7**)
  - B. Approval of Hennepin Co. Waiver to SECB Standard LMR-53 (**page 9**)
  - C. Discussion: Legislation/County Ordinances re: Bi-Directional Amplifiers (**page 11**)
5. **9-1-1 Items** – Jake Jacobson, 9-1-1 Manager – None
6. **EMS Items** – Greg Hayes, EMS Coordinator – None
7. **Administrative Items** – Jill Rohret, Executive Director
  - A. Approval of Regional Needs Document (**page 13**)
8. **Old Business**
  - A. Update on MESB Legislative Efforts (Margaret Vesel/Matthew Bergeron)
9. **New Business**
  - A. Recognition of Martha Ziese's Retirement – Rohret/Warring
10. **Adjourn**



## **METROPOLITAN EMERGENCY SERVICES BOARD BOARD MEETING AGENDA**

March 8, 2023, 10:00 a.m.

### *Metropolitan Emergency Services Board Members*

#### Anoka County

Commissioner Mike Gamache\*  
Commissioner Mandy Meisner

#### Carver County

Commissioner Gayle Degler\* (2023 Secretary)  
Commissioner John Fahey

#### Chisago County

Commissioner Rick Greene\*

#### City of Minneapolis

Council Member Andrew Johnson\* (2023 Treasurer)

#### Dakota County

Commissioner Joe Atkins\*  
Commissioner Mary Hamann-Roland

#### Hennepin County

Commissioner Irene Fernando\*  
Commissioner Chris LaTondresse

#### Isanti County

Commissioner Mike Warring\* (2023 Chair)

#### Ramsey County

Commissioner Trista Matascastillo\* (2023 Vice Chair)  
Commissioner Mai Chong Xiong

#### Scott County

Commissioner Dave Beer  
Commissioner Tom Wolf\*

#### Sherburne County

Commissioner Gregg Felber\*

#### Washington County

Commissioner Gary Kriesel  
Commissioner Fran Miron\*

\*Denotes Executive Committee member

# METROPOLITAN EMERGENCY SERVICES BOARD

## EXECUTIVE COMMITTEE MEETING MINUTES December 14, 2022

### Commissioners:

Greg Anderson, Isanti County  
Joe Atkins, Dakota County  
Barbara Burandt, Sherburne County - **absent**  
Gayle Degler, Carver County  
Irene Fernando, Hennepin County  
Mike Gamache, Anoka County

Rick Greene, Chisago County  
Andrew Johnson, City of Minneapolis - **absent**  
Trista Matascastillo, Ramsey County  
Fran Miron, Washington County  
Tom Wolf, Scott County

**Staff Present:** Tracey Fredrick; Greg Hayes; Kelli Jackson; Jill Rohret; and Martha Ziese.

**Guests Present:** Brittany McCormick, *Board Counsel*; and Margaret Vesel, *Larkin Hoffman*.

### 1. Call to Order:

The meeting was called to order at 10:01 a.m. by MESB Chair Commissioner Irene Fernando.

### 2. Approval of the December 14, 2022 Agenda

*Motion made by Commissioner Wolf, seconded by Commissioner Degler to approve the MESB Executive Committee December 14, 2022 agenda. Motion carried.*

### 3. Approval of the October 12, 2022 Minutes

*Motion made by Commissioner Matascastillo, seconded by Commissioner Gamache to approve the MESB Executive Committee October 12, 2022 minutes. Motion carried.*

### 4. Radio Items

#### A. Approval of Lease Renewal with Pioneer Public TV for Minnetrista Tower

Tracey Fredrick said staff recommends the Executive Committee approve and authorize the Chair to execute Amendment 1 to the ARMER Site Lease with Pioneer Public TV for an ARMER site in Minnetrista.

Fredrick said the lease has been month-to-month since 2019. The rent will increase as the rate has not changed since 1999; users have been notified. The approval of this lease amendment will be ratified at the January 2023 MESB board meeting.

*Motion by Commissioner Degler, seconded by Commissioner Matascastillo to approve the lease amendment with Pioneer Public TV. Motion carried.*

### 5. 9-1-1 Items – None

### 6. EMS Items

#### A. Approval of FY23 EMS Sustainability Pilot Project Grant

Greg Hayes said staff recommend the Executive Committee approve and accept the Emergency Medical Services Regulatory Board (EMSRB) EMS Sustainability pilot project grant in the amount of \$12,000.00 to each region. This grant will terminate on June 30, 2023 and is intended to help identify strategies to retain EMS employees. The approval of this agreement will be ratified at the January 2023 MESB board meeting.

*Motion made by Commissioner Gamache, seconded by Commissioner Greene to approve the EMSRB EMS Sustainability Pilot Project Grant. Motion carried.*

# METROPOLITAN EMERGENCY SERVICES BOARD

## 7. Administrative Items

### A. Discussion: Update on the MESB 2023 Legislative Proposal

Jill Rohret provided the latest narrative draft for the legislative proposals.

Rohret said since the November board meeting, it was announced that there will be a new Commissioner of the Department of Public Safety (DPS).

Rohret stated that she and Margaret Vesel visited the Ramsey County Emergency Communications Center (RCECC) last week to how to address some legislative concerns; they think that it would be good to have members of the House and Senate Public Safety Committees visit RCECC and the Hennepin County Sheriff's Office PSAP.

Margaret Vesel said it is likely that legislative committees will be smaller than in the past; this means the legislators will only serve on one to three committees.

Commissioner Matascastillo said she heard there was to be a very large cash bonding bill in January. Since we are asking for a cash request for infrastructure, should that strategy be considered as opposed to just going to the public safety committees. Vesel responded that either way a general fund appropriation is needed.

Commissioner Fernando suggested that an introductory letter be sent stating MESB intentions.

Commissioner Matascastillo said Commissioner Harrington was very excited about these projects. Harrington said DPS d tried to do indoor school mapping years ago, and it was the Minnesota Department of Education that blocked it at the capital. The block was related to data and student privacy and some other concerns. Harrington suggested the MESB start with education; everyone in public safety knows the importance of mapping.

Rohret said she queried a couple sheriffs who both thought mapping was a good idea.

Commissioner Atkins said that smaller committees could be better beneficial as it may help the committee stay more focused. It could be worse because member will then have the time to focus on fewer or just one thing.

Vesel said last year there were some members that were on upwards of five committees, which made it impossible to meet with them.

Rohret said it needs to be made clear that 9-1-1 services are for everyone. The public would also be surprised that there are not maps of schools and large facilities.

Vesel suggested that we may need to conduct pilot projects to show the benefit of school mapping.

Commissioner Matascastillo suggested having a Democrat from Greater Minnesota sponsor the legislation to help with the message that mapping is needed.

### B. Discussion: Comments on Planned DPS Amendments to MS 403

Jill Rohret said the regions were notified at the beginning of November that the SECB and ECN wanted feedback from each of the regions on the proposed amendments to MS 403. Rohret said that there are a couple of changes from what was introduced last year, mainly focusing on technical aspects of the 9-1-1 system. She noted that the role of Commissioner's Office versus

# METROPOLITAN EMERGENCY SERVICES BOARD

the Statewide Emergency Communications Board (SECB) is still being discussed.

Rohret said the MESB should be prepared to be agile in our advocacy of EMS regions and the Office of Legislative Auditor (OLA reports).

Vesel said there is talk of forming an EMS Standing Committee within the first couple of days of session chaired by Representative John Huot. In the past there has been discussions about moving the EMSRB under Minnesota Department of Health, Office of Rural Health. Huot expressed interest in a commissioner level position and getting rid of the EMSRB.

Rohret said if the EMSRB were to fall under the Rural Health umbrella, it would be harder for the metro to function because it would try to align with rural health initiatives that really don't apply to the metro.

Fernando said the new legislative session is expected to be robust. She said she felt the playbook, goals, centralization expectations, etc. should be drawn up by MESB staff.

## **C. Discussion: Per Diem**

Rohret said staff would like to amend the MESB Per Diem policy so that it can be applied consistently. Currently, how per diem payments are paid varies from county to county and there are also different options within some counties regarding per diems for meetings.

Commissioner Miron said that a couple of years ago Washington County was accepting mileage and per diem. The Washington County legal department said that there is a formula based on the governor's salary that if the commissioner makes a certain percentage of the governor's salary there cannot be a direct payment to the commissioner directly from the MESB. At the beginning of COVID, the governor did not take the normal increase and that triggered that law in Washington County. The per diems come from the assessment fees. Per diems are helpful in obtaining a quorum and they are also beneficial to the commissioners that do not make a large salary from their county position. Miron will check with his legal department and pass on to Jill.

Commissioner Fernando suggested this topic be covered at the organizational meeting.

Commissioner Wolf asked if attendance could be tracked over the year and the per diem could be subtracted from the assessment fees.

Kelli Jackson said Dakota County is paid at the end of the year. Rohret suggested paying all per diems to the counties at the end of each year.

## **8. Old Business – None**

## **9. New Business – None**

## **10. Adjournment**

The meeting adjourned at 10:56 a.m.





## **METROPOLITAN EMERGENCY SERVICES BOARD**

**Meeting Date:** April 12, 2023  
**Agenda Item:** 4A. Approval of City of St. Paul Waiver  
to SECB Standard LMR-53  
**Presenter:** Fredrick

### **RECOMMENDATION**

The Radio Technical Operations Committee recommends the Executive Committee recommend approval of a waiver request to SECB Standard LMR-53 for the City of St. Paul.

### **BACKGROUND**

St. Paul is an ARMER participant under Ramsey County, which currently utilizes a full ARMER participation plan with DPS-ECN.

### **ISSUES & CONCERNS**

The City of St. Paul requests a waiver to SECB Standard LMR-53, Foreign Radio System and non-ARMER Radio Connections.

St. Paul would like to add 20 permanent interfaces between city-owned talkgroups and LTE devices using donor radios and a radio gateway. The request will support all of St. Paul emergency management radios and possible other city and Ramsey County users.

The initial setup will use two XTL 2500 mobile radios set to low power and the package implemented will be AT&T Enhanced Push-to-Talk.

### **FINANCIAL IMPACT**

None to MESB.

MOTION BY:  
SECONDED BY:  
MOTION:

PASS/FAIL



**March 7, 2023**

To: MESB Board members, Mike Warring Chair

CC: Tracey Fredrick

Subject: City of Saint Paul – LMR to LTE Connectivity

Good Afternoon,

Saint Paul Emergency Management would like to request permission to be able to install LMR to LTE interface equipment to the Ramsey County sub-system. This equipment would be in accordance with LMR-53 standard and follow the SECB Push to Talk Application/Selection/Deployment – Best Practices Guide.

Saint Paul Emergency Management is requesting the ability to add twenty (20) permanent or enduring radio frequency (RF) interfaces between City owned talkgroups and LTE devices by utilizing donor radios and a Cubic Vocality radio gateway. This LMR-53 request will be applied to all Saint Paul Emergency Management and may be applied to other users in the City of Saint Paul and users in Ramsey County.

In accordance with LMR-53 the donor radios will be on the ARMER approved radio list and comply with the standard for programming requirements. Ramsey County Radio Services will provide the radio programming and administrative services for these radios and ID's. This equipment will be installed in a secured location at the Saint Paul Emergency Operations Center. Saint Paul Emergency Management maintains a full-time operating staff so in the event there is an issue with this equipment it can be disabled remotely or by on site staff. Ramsey County Radio Emergency Communications staff also will have access to this equipment, if needed, 24/7/365.

City of Saint Paul Departments and associated Ramsey County agencies may choose PTT applications (apps) that meet their operational requirements so long as they integrate appropriately with the Cubic Vocality gateway devices. PTT application system administrators for the Saint Paul Emergency Management will have the ability to enable and disable individual users as well as each user's ability to access radio gateway talkgroups via the PTT application.

The initial setup of the equipment will utilize two (2) XTL 2500 series mobile radios set to low power. The initial application package being implemented will be AT&T Enhanced Push to Talk (EPTT).

If there are any questions on this request, please feel free to reach out to Saint Paul Emergency Management.

Respectfully,

Rick





## **METROPOLITAN EMERGENCY SERVICES BOARD**

**Meeting Date:** April 12, 2023  
**Agenda Item:** 4B. Approval of Hennepin County Waiver  
to SECB Standard LMR-53  
**Presenter:** Fredrick

### **RECOMMENDATION**

The Radio Technical Operations Committee recommends the Executive Committee recommend approval of a waiver request to SECB Standard LMR-53 for Hennepin County.

### **BACKGROUND**

Hennepin County is an ARMER participant, currently utilizing a full ARMER participation plan with DPS-ECN.

### **ISSUES & CONCERNS**

Hennepin County is requesting a waiver to SECB Standard LMR-53, Foreign Radio System and non-ARMER Radio Connections.

Hennepin County will use the MotoTRBO application to connect to the dispatch Cloud-Connected Gateway (CCGW) device to allow officers access through the radio. The officers will only connect to this service when assigned to Target Field events, so they do not have to carry two radios. Hennepin County Sheriff's Office technical staff will be responsible for monitoring and usage of the device.

### **FINANCIAL IMPACT**

None to MESB.

MOTION BY:  
SECONDED BY:  
MOTION:

PASS/FAIL



**SHERIFF DAWANNA S. WITT**

Hennepin County Sheriff's Office, 350 South Fifth Street, Room 6, Minneapolis, MN 55415  
(612) 348-3744 • hennepinsheriff.org

February 9, 2023

Metropolitan Emergency Services Board  
Radio Technical Operations Committee

Dear Radio TOC Chair,

The Hennepin County Sheriff's Office is requesting review and approval of a non-ARMER radio connection in reference to LMR-53 Standard for Foreign Radio System and Non-ARMER Radio Connections.

The Sheriff's Office at times assists in providing licensed peace officer support in locations and at events where non-P25 radio equipment is being utilized. The Sheriff's Office is currently contracted to assist Twins security at Target Field, and this currently requires deputies to carry two radios, one for each desperate radio system.

The Sheriff's office would like to connect a MotoTRBO mobile radio to an HCSO dispatch site CCGW to provide the ability to patch the audio resource to an ARMER talkgroup. The ARMER P25 talkgroup used in the patch will be an HCSO agency talkgroup, that is only requested on the Hennepin East and West subsystems and are site preferenced in subscriber radio programming to Hennepin East and West subsystems.

This would allow deputies working an event at Target Field to utilize their assigned P25 portable to communicate on the Twins security MotoTRBO talkgroup, while also still being able to access ARMER talkgroups.

Upon approval, Hennepin radio technical staff will be involved in completing the configuration and testing of patched radio systems and the overall on-going maintenance and troubleshooting as needed.

Respectfully,

Mike Parker  
HCSO Radio Subsystem Administrator

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Rockford • Rogers • Saint Anthony • St. Bonifacius • St. Louis Park • Shorewood • Spring Park • Tonka Bay • Wayzata • Woodland**



## **METROPOLITAN EMERGENCY SERVICES BOARD**

**Meeting Date:**

**April 12, 2023**

**Agenda Item:**

**4C. Discussion: Legislation/County  
Ordinances re: BDAs**

**Presenter:**

**Fredrick/Rohret**

### **RECOMMENDATION**

None; this is a discussion only. Staff would like to discuss possible pathways to accomplish the need for a bi-directional amplifier (BDA)/distributed antenna system (DAS) registry.

### **BACKGROUND**

BDAs/DAS have been implemented in many buildings across the metro region to enhance ARMER coverage in that building (e.g., tunnels, underground/basement facilities, or heavy buildings). BDAs have been installed in light-rail tunnels and stops, including at the Mall of America and MSP Airport; schools; hospitals; and police stations to name a few. Some municipalities have ordinances requiring new construction of heavy buildings to include the installation of a BDA or DAS.

### **ISSUES & CONCERNS**

Metro ARMER system managers/administrators have noticed an increase in vendors installing BDA equipment in many public spaces. This can lead to interference on the ARMER system, which recently occurred in Dakota County; this interference (echoing) created issues for Dakota, Ramsey and Washington Counties.

The Radio TOC is concerned that metro ARMER system managers/owners are not being included in these planning discussions with the building owners and BDA/DAS vendors. Without agency input, vendors and installers may unknowingly create interference with the ARMER system. Some of these concerns could be alleviated on the front end with agency radio system administrator involvement; after equipment is installed, the process to mitigate any issues becomes much more difficult.

The Radio TOC would like for a BDA/DAS registry to be created which could help ARMER system administrators locate possible BDA/DAS interference. The committee discussed whether legislation should be introduced to create a statewide registry or whether county ordinances might be sufficient. MESB staff would like to receive input from the Executive Committee.

### **FINANCIAL IMPACT**

None to the MESB at this time.

MOTION BY:

SECONDED BY:

MOTION:

PASS/FAIL





## **METROPOLITAN EMERGENCY SERVICES BOARD**

**Meeting Date:**

**April 12, 2023**

**Agenda Item:**

**8A. Approval of Regional  
Needs Document**

**Presenter:**

**Rohret**

### **RECOMMENDATION**

The Radio TOC and 9-1-1 TOC recommend the Executive Committee recommend approval of the regional needs document.

### **BACKGROUND**

In late 2022, the Southwest Emergency Communications Board (SWECEB) created a document to include regional and individual county ARMER funding needs. This document was discussed at the SECEB Finance Committee on February 9, 2023; the Finance Committee formally asked each region to complete a regional needs document and return it to the SECEB Grants Workgroup by Monday, March 6, 2023.

The SWECEB document included region-wide needs as well as needs of individual counties.

### **ISSUES & CONCERNS**

Though the communication out to the regions expressly stated that only ARMER needs should be included, MESB staff feel it is important to also include some 9-1-1 needs, as the state is not funding all 9-1-1 needs and the direct appropriation to each PSAP cannot cover all 9-1-1 related needs.

The 9-1-1 items included in this document were taken from the 2023 approved regional funding priorities and are:

- CAD-to-CAD interoperability solution (and noted this is included in the MESB's legislative appropriation bills (HF 2431/SF 2454))
- GIS Software Services - School Mapping (also included in HF 2431/SF 2454)
- GIS Software Services
- Geo-Diverse 9-1-1 CHE ESInet Connections
- Staff Recruitment and Retention

The Radio items included in this document were taken from the 2023 approved regional funding priorities and are:

- Requests for bi-directional amplifiers (BDAs)/distributed antenna systems (DAS)
- AES Encryption
- Vendor-provided radio technical training
- Communications Response Task Force (CRTF) training and exercising
- Staff recruitment & retention.

MOTION BY:

SECONDED BY:

MOTION:

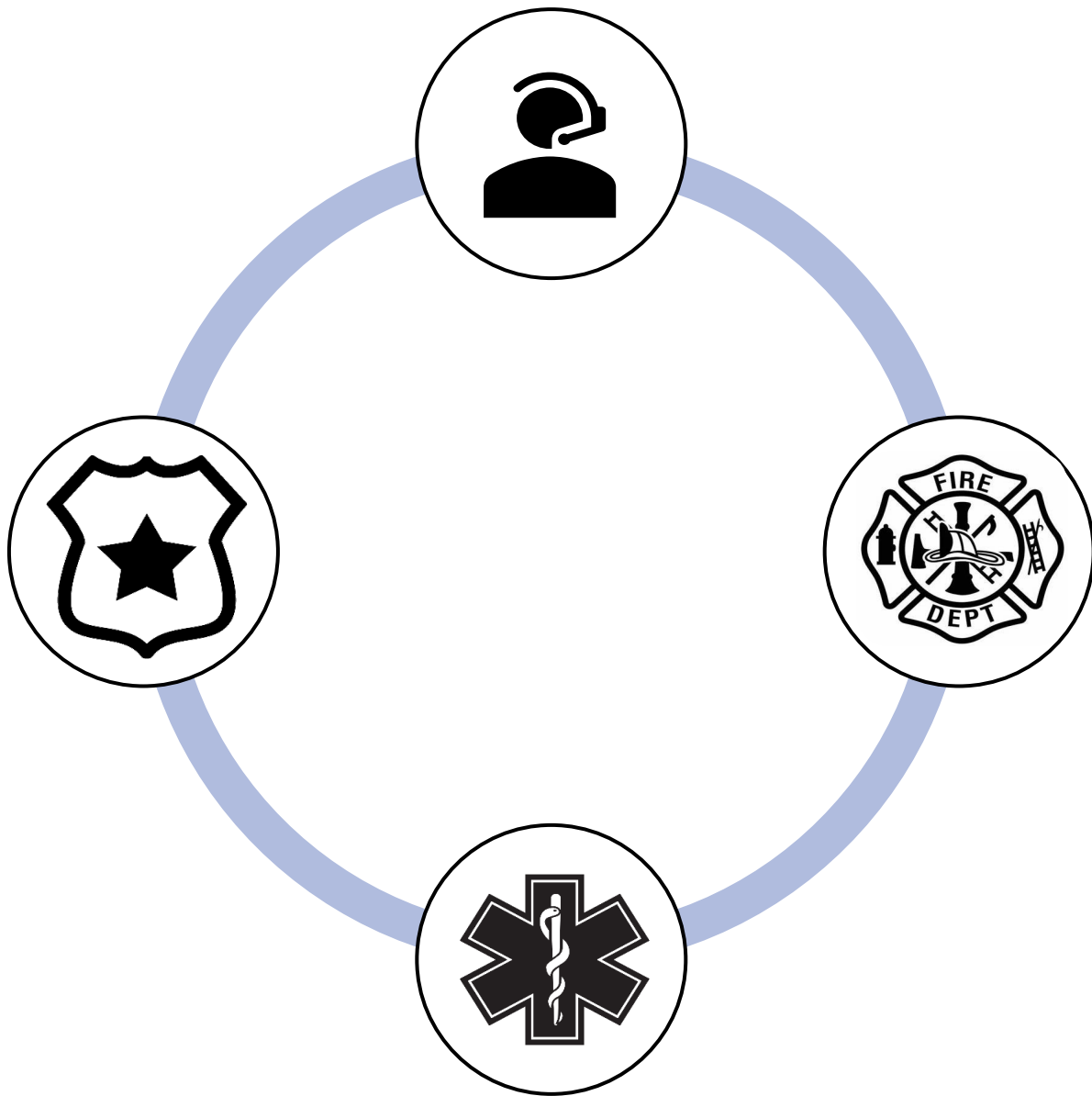
PASS/FAIL





# Metropolitan Emergency Services Board

## Regional Needs: The Public Safety Emergency Communications Ecosystem



**DRAFT:** March 28, 2023

## The Metropolitan Emergency Services Board

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The Metropolitan Emergency Services Board (MESB) is one of seven regional Emergency Communications Boards (ECBs) and Emergency Services Boards (ESBs) in the state of Minnesota. The MESB was established under MSS 471.59, MSS 403.39 and MSS 403.392 to provide local governance on matters related to emergency communications (9-1-1 and ARMER), as well serving as the regional EMS system for the metro region. The MESB is a joint powers board composed of the following entities: Anoka County; Carver County; Chisago County; Dakota County; Hennepin County; Isanti County; Ramsey County; Scott County; Sherburne County; Washington County; and the City of Minneapolis.

## The Public Safety Emergency Communications Ecosystem

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With approximately 94,000 active radios (MnDOT, October 2022), the statewide Allied Radio Matrix for Emergency Response (ARMER) system, built by Motorola Solutions and owned and operated by the Minnesota Department of Transportation (MnDOT), provides interoperable Land Mobile Radio (LMR) communication capabilities to 9-1-1 emergency communication centers (ECCs) (also known as Public Safety Answering Points or PSAPs), law enforcement, fire, Emergency Medical Services (EMS), emergency management, public works, and other public safety users across Minnesota.



Construction of the ARMER system in the Twin Cities metropolitan region began in the late 1990s and expanded to include greater Minnesota in the mid-2000s. In late 2020, the MnDOT completed its backbone of the ARMER system buildout. There are now 335 state-maintained and 100 locally maintained ARMER tower sites on-the-air across Minnesota that provide ARMER system radio coverage (mobile only) to 95% of the state's geographic area. Of the 100 locally maintained ARMER tower sites, 54 are in the metro region.

As the ARMER system matures, there is a need to maintain and replace or upgrade aging infrastructure, equipment, and technology. The Statewide Emergency Communication Board (SECB) and state agencies are currently working to develop a capital improvement plan to address this need.

In 1979, the Metropolitan 9-1-1 Telephone Board was formed as a joint powers board of the seven metropolitan counties to plan, design, and implement the first multi-jurisdictional enhanced 9-1-1 (E9-1-1) system in the United States. This system went live at midnight, December 1, 1982, and provided the basis for the statewide buildout of E9-1-1. Today, all 108 PSAPs in the state are part of the statewide 9-1-1 network. Of the 108 PSAPs, 24 are located in the metro region. The 9-1-1 network is in process of transitioning from E9-1-1 to Next Generation 9-1-1, which will provide PSAPs additional abilities to answer texts, receive photos and videos, provide improved 9-1-1 caller location, and provide pre-determined rules for routing of 9-1-1 calls.

Today, the Department of Public Safety contracts and pays for the statewide 9-1-1 system. Local governments pay for costs associated with receiving 9-1-1 calls and dispatching public



safety responders. Local government costs include maintaining the physical PSAP; salaries/benefits for PSAP employees, including public safety telecommunicators (PSTs), administration staff, technical staff, and in some cases, dedicated GIS staff; purchase and maintenance of call handling equipment (CHE) used to answer 9-1-1 calls; purchase and maintenance of communications/radio equipment used to dispatch response to 9-1-1 calls; software or subscription services to maintain the PSAP's 9-1-1 data and services, including GIS data; and software or subscription services to provide Integrated Public Alert and Warning Systems (IPAWS) alerts to the public. Much like the ARMER system, as the 9-1-1 network and 9-1-1 systems continue to evolve, there is a need to maintain, upgrade, or replace aging equipment to allow for new technology to meet the expectations of the public, which would like to communicate with 9-1-1 in the way the public communicates with one another.

Much like hardships of recruitment and retention of staff across public safety disciplines, PSAPs today face difficulty in maintaining a full-complement of PSTs which are needed to answer a PSAP's specific volume of 9-1-1 and administrative calls. PSAPs also face difficulty in recruiting new people to serve as PSTs, as many people do not wish to work in a high-stress environment or work nights, weekends, and/or holidays, which is required in a public safety field.

## Funding Considerations

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The State of Minnesota's portion of the costs associated with operating the ARMER system is funded through a combination of trunk highway funds, 9-1-1 special revenue funds, and radio tower lease receipts.

Except for PSAP equipment and a limited portion of local infrastructure expenses which can be funded via the 9-1-1 special revenue fund, local costs (including tower site leases, utilities, and system and equipment maintenance) associated with the ARMER system are typically funded via local property tax revenues or per radio charges to ARMER system users in a county. Due to these constraints, public safety agencies

across Minnesota face significant funding challenges related to the escalating costs of maintenance of ARMER system infrastructure, equipment, and technology. Without access to stable, adequate supplemental funding sources, it will be increasingly difficult for local entities to support their ongoing ARMER system maintenance and sustainment needs.

## Regional Priorities

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Though this document covers region-wide needs only, and does not include individual needs of counties, that is not to say that these regional priorities will not benefit each of the ten metro counties individually. What follows are priorities that metro region agencies agree are a priority.

## Computer-Aided Dispatch (CAD)-to-CAD Interoperability Solution

The 24 primary and secondary PSAPs in the metro region desire to acquire a CAD-to-CAD integration solution designed to connect disparate CAD systems for the purpose of expediting emergency response which may cross jurisdictional and PSAP boundaries.

The solution would also provide improved situational awareness for metro region PSAPs. Such a solution was found to be a need in the Metropolitan Emergency Services Board's May/June 2020 Civil Unrest After-Action Report/Improvement Plan. The solution could allow other PSAPs to answer 9-1-1 calls intended for a PSAP which has been inundated with 9-1-1 calls; this will provide 9-1-1 callers with better service in extraordinary situations/events.

Estimated Metro Region cost: ~\$180,000 per year, plus one-time implementation costs of approximately \$30,500\*

\*This item is included in HF 2431/SF 2454

## BDA Requests

Several buildings in the region have been identified as having radio coverage gaps and would benefit from having bi-directional amplifiers (BDA) installed. This would assist first responders with radios be able to assist and be heard on the radio no matter where in a building the responder is located.

Estimated Metro Region cost: ~\$3 million\*

\*This item included in HF 2431/SF 2454

## GIS Software Services – School Mapping

With the frequency of mass shootings/armed assailant incidents increasing nationwide, and in reviewing the response to recent school shootings, primarily in Uvalde, TX, the metro region would like to implement school mapping, whereby maps of schools would be available in each PSAP, which could facilitate the location of 9-1-1 callers within the building. Additionally, having these resources available could provide first responders with information that could affect emergency response, such as locations of chemistry labs, etc. which could alter responders' plans.

Estimated Metro Region cost: ~\$400,000 in one-time implementation costs and \$40,000 per year in annual maintenance costs\*

\*This item included in HF 2431/SF 2454

## GIS Software Services

GIS software services are needed to support the creation, conversion, and maintenance of GIS-derived Master Street Address Guides (MSAGs) for the PSAPs in the ten-county metropolitan region. These services would further integrate the region's legacy 9-1-1 data processes with those needed for NG9-1-1. The outcomes include improving 9-1-1 data accuracy, gaining operational efficiency, and maintaining 9-1-1 data synchronization during the transition to full i3 NG9-1-1 implementation. Additionally, a web-based map viewer will allow for all metro region PSAPs and GIS partners to have visibility to the region's current NG9-1-1 and related geospatial datasets in a secure, shared environment, allowing for seamless data sharing, greater collaboration, and improved data integrity.

Estimated Metro Region cost: ~\$180,000 per year, plus one-time implementation costs of approximately \$30,500 for generalized GIS software services  
~\$344,059 for five years for the web-based data viewer, plus \$8,279 in one-time implementation costs.

## AES Encryption

The Statewide Emergency Communication Board (SECB) recommends a transition to a higher level of encryption (AES or Advanced Encryption Standard) for sensitive radio transmissions on the ARMER system. To achieve this capability, supplemental funding is necessary to replace and/or upgrade existing ARMER system equipment.

Estimated Metro Region cost: ~\$8.4 million

## Geo-Diverse 9-1-1 Call Handling Equipment (CHE) ESInet Connections

Many Minnesota PSAPs are taking advantage of geo-diverse technology with new CHE platforms that allow for 9-1-1 calls to be delivered to two locations simultaneously. Geo-diverse configurations split the A and B servers typically found at one location, into two separate geo-diverse locations, which allows for additional staff at another location, or PSAP, during extremely busy times or special events to answer 9-1-1 and administrative calls while the main PSAP is still active. It also allows the PSAP to abandon its primary location while the backup location is fully operational and gives the opportunity for a staged evacuation while staff is enroute to the backup location. Additionally, the main PSAP can operate on the connections that exist at its backup location if the main PSAP experiences any technical issues with its connections. To allow for full redundancy and resiliency, each PSAP utilizing geo-diverse CHE should have two Emergency Services Internet (ESInet) connections at each location to ensure the maximum number of 9-1-1 calls can be received at either location at any time, regardless of any problems occurring at the other location. Currently, ECN only pays for two ESInet connections at each PSAP, which is the typical setup for legacy CHE. ECN should reconsider its position and pay for four ESInet connections for PSAPs which implement geo-diverse CHE systems. Having four ESInet connections provides improved resiliency and redundancy to a PSAP's 9-1-1 system and best serves the residents of its jurisdiction.

Estimated Metro Region cost: ~\$12,000 per PSAP per year, or \$216,000 annually in addition to ECN's current costs

### Vendor-provided Radio Technical Training

According to SECB standard, system administrators must go through training at least once every two years. To keep current with evolving technology, administrators request to attend training provided by a contracted technical vendor to fulfill this need.

Estimated Metro Region cost: ~\$40,000 per year

### CRTF Training and Exercising

The Metro Communications Response Task Force (CRTF) holds quarterly training/exercises for deployable personnel to remain current on local, state, and national standards. These deployable personnel typically are assigned to assist in the field, the command post, EOCs, and PSAPs during planned and emergent events.

Estimated Metro Region cost: ~\$10,000 per year

### Staff Recruitment & Retention

Public safety disciplines, including PSAPs and LMR technology departments, struggle to recruit and retain employees. There is a need to establish a program to actively recruit new staff and to retain employees. The Emergency Medical Services Regulatory Board has established a pilot grant to focus on EMS employee sustainability. Similar programs should be instituted for other public safety disciplines, though with this request the focus is on public safety telecommunicators and system technologists. The metro region would like to contract with a vendor to place targeted recruitment ads via radio, flyers, videos, and social media platforms.

Estimated Metro Region cost: ~\$100,000 per year

### ARMER Infrastructure not included in SUA2+ Contract

Every five years, the State of Minnesota (specifically MnDOT) enters into a service contract with Motorola for maintenance and upgrades to the ARMER system. There is a current upgrade need to transition sites from T1 to Ethernet backhaul transport.

Estimated Metro Region cost: ~\$500,000