METROPOLITAN EMERGENCY SERVICES BOARD
RADIO TECHNICAL OPERATIONS COMMITTEE AGENDA
February 25, 2026, 1:00 p.m.

This meeting will be conducted in-person at the **MESB Board Room, 2099 University Ave W, St. Paul** and online at WebEx Link. If prompted, please use meeting number 2559 286 9430 and password Radio. To call in by phone, dial 408.418.9388.

1. **Call to Order** – Committee Chair, Jake Thompson

2. **Roll Call/Attendance (if needed)**

3. **Approval of Agenda** – Thompson

4. **Approval of Minutes of January 28, 2026 Meeting (page 2)** – Thompson

5. **Action Items**
   A. Radio Items for Regional Needs Document (page 9)

5. **Moves, Additions, & Changes to the System**

6. **Committee Reports**
   A. System Managers Group/Metro Administrators – Ron Jansen
   B. MnDOT ARMER System Update – Nick Schatz/Dave Klema
   C. SECB Committees
      i. Steering – Fredrick/Jill Rohret
      ii. LMR – Mike Mihelich/Nate Timm
      iii. WBBA – Rod Olson/Ryan Emberland
      iv. IOC/ICT Workgroup – Timm/Jansen/Dan Anderson
      v. IPAWS – Scott Haas
      vi. Finance/Grants Workgroup – Fredrick/Rohret

7. **Other Business**
   A. ME TAC Permissions Update – Fredrick

8. **Adjourn**

Reminder: Next meeting scheduled for March 25, 2026.

Metropolitan Emergency Services Board

**Radio Technical Operations
Committee
January 28, 2025
Draft Meeting Minutes**

Members

Airport – Jeff Bjorklund
Anoka County – Ryan Emberland
Carver County – Peter Sauter
Chisago County – Mike Parker
Dakota County – Ron Jansen
Hennepin County – Jake Thompson
Isanti County – Clinton Maxson (online)
Metro Region EMS – Victoria Vadnais

Metro Transit – Chad LeVasseur
Minneapolis – Rod Olson
Minnesota Fire Chiefs – Scott Gerber
Ramsey County – Mike Mihelich
Scott County – Scott Haas
Sherburne County – Derek Baas
Washington County – Nate Timm
U of M – **absent**

Guests: Kristen Aronen, *Hennepin County (online);* Tim Boyer, *State Patrol (online);* Derek DiPietro, *Motorola;* Chad Forystek, *MN State Patrol (online);* Dalton Gruber, *Bloomington;* Rick Harjes, *MN State Patrol (online);* Ted Hutson, *Motorola (online);* Dan Klawitter, *Hennepin EMS;* Merlin Koskela, *Hennepin County (online);* Tyler Lupkes, *Hennepin EMS;* Wendy Lynch, *M Health Fairview (online);* Kris Massie, *Hennepin County (online);* and Marty O'Malley, *Motorola.*

MESB Staff: Tracey Fredrick; Jacob Kallenbach; and Jill Rohret (online).

1. Call to Order
The meeting was called to order at 1:01 p.m.

Roll call was performed.

2. Approval of Agenda
Motion made by Ron Jansen, seconded by Scott Haas to approve the January 2026 Radio TOC meeting agenda. Motion carried.

Roll Call for Approval of Agenda

Name	County/City/Agency	Yes	No
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

Metropolitan Emergency Services Board

3. Approval of Minutes of December 17, 2025
Motion made by Jeff Bjorklund, seconded by Mike Mihelich to approve the December 2025 Radio TOC meeting minutes. Motion carried.

Roll Call for Approval of Minutes

Name	County/City/Agency	Yes	No
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

4. Action Items
A. Hennepin Healthcare LMR-53 Request
Tyler Lupkes said Hennepin EMS is requesting a modification to their ARMER Participation Plan to permit operations in accordance with SECB Standard LMR-53: Foreign Radio System and Non-ARMER Radio Connections. Hennepin EMS requests the ability to establish up to six radio frequency interfaces between Hennepin EMS owned talkgroups and LTE devices by utilizing donor radios and radio gateways.

Haas asked if they would be using local or statewide talkgroups.

Lupkes said they would be using only Hennepin County talkgroups.

Motion made by Haas, seconded by Victoria Vadnais to approve the Hennepin Healthcare LMR-53 request. Motion carried.

Roll Call for Hennepin Healthcare LMR-53 Request

Name	County/City/Agency	Yes	No
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	

Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

B. MRCC Talkgroup Additions

Fredrick said that since the approval of a new encrypted talkgroup for West MRCC, the East MRCC has also requested a new clear talkgroup and the West MRCC is requesting an additional encrypted talkgroup for future growth. At this time, it is being requested to keep East and West MRCC 1-2 in the clear, and East and West MRCC 3E-4E added. It is not expected that East MRCC will utilize the encrypted talkgroups immediately but will be there in the future to match the West MRCC when its encryption capabilities grow.

Motion made by Jansen, seconded by Vadnais to approve the MRCC talkgroup additions. Motion carried.

Roll Call for MRCC Talkgroup Additions

Name	**County/City/Agency**	**Yes**	**No**
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

C. State Patrol LSEC Talkgroup Access Request

Chad Forystek said the Minnesota State Patrol requests a waiver to allow the ME LSEC talkgroups to be authorized on select non-sworn subscriber radios, specifically those assigned to Minnesota State Patrol Capitol Security personnel and non-sworn Commercial Vehicle Inspectors. Personnel utilizing these radios are CJIS certified and operate in roles that routinely require secure, encrypted communications alongside sworn law enforcement staff during coordinated operations, planned events, and incident responses. Capitol Security radios are controlled assets and are not taken home by staff.

Motion made by Nate Timm, seconded by Vadnais to approve the State Patrol LSEC talkgroup access request. Motion carried.

Roll Call for State Patrol LSEC Talkgroup Access Request

Name	**County/City/Agency**	**Yes**	**No**
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	

Metropolitan Emergency Services Board

Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

D. Bloomington Gateway Request
Dalton Gruber said the City of Bloomington is requesting permission to install an LMR-to-LTE gateway to the Hennepin County East subsystem, per the LMR-53 standard. Two interfaces would be established between city-owned talkgroups and LTE devices. The gateway is intended to support Bloomington PD command staff and the Bloomington SIU unit as an alternative method for accessing ARMER. The two talkgroups supported by the interface will have the capability to be console-patched, if necessary, to any interoperability talkgroup accessible by the Bloomington PSAP.

Motion made by Timm, seconded by Haas to approve the Bloomington gateway request. Motion carried.

Roll Call for Bloomington Gateway Request

Name	County/City/Agency	Yes	No
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

E. MAC Equipment Addition
Jeff Bjorklund said the Metropolitan Airports Commission is planning to add a new Aux I/O server to the MAC's console site, Zone 2, Site 23. MAC is planning to utilize this server to receive CPE alarms from its Viper 911 phone system.

Metropolitan Emergency Services Board

Jansen asked if MnDOT approved the new server.

Bjorklund responded by stating MnDOT did indeed approve.

Motion made by Jansen, seconded by Vadnais to approve the MAC equipment addition. Motion carried.

Roll Call for MAC Equipment Addition

Name	County/City/Agency	Yes	No
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		
Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

F. Metro Standard Appendix 2 Update
Fredrick said that while reviewing standards Appendix 2 was discovered to be out of date. The document is a glossary and definitions list. The MESB already has a glossary and definitions document in the MESB Board Manual which is updated frequently. Fredrick asks the Radio TOC if the Appendix 2 document should be deleted or updated.

Motion made by Haas, seconded by Timm to delete Appendix 2 from the list of standards. Motion carried.

Roll Call for Removal of Metro Standard Appendix 2

Name	County/City/Agency	Yes	No
Jake Thompson	Hennepin County	X	
Ron Jansen	Dakota County	X	
Ryan Emberland	Anoka County	X	
Peter Sauter	Carver County	X	
Mike Parker	Chisago County	X	
Rod Olson	City of Minneapolis	X	
Clinton Maxson	Isanti County	X	
Jeff Bjorklund	Metro Airports	X	
Victoria Vadnais	Metro Region EMS	X	
Chad LeVasseur	Metro Transit	X	
Scott Gerber	MN Fire Chiefs	X	
Mike Mihelich	Ramsey County	X	
Scott Haas	Scott County	X	
Derek Baas	Sherburne County	X	
Jeff Lessard	University of Minnesota		

Metropolitan Emergency Services Board

Nate Timm	Washington County	X	

Yes: 15 No: 0 Motion Passes.

G. Discussion: Beginning of 2026-2029 Change Management Cycle
Fredrick said January 2026 begins the new change management cycle. The first year of the cycle is considered the ideation phase. If you have any items to be considered for regional change management, please bring those to Fredrick so they can be discussed throughout 2026.

H. Discussion: 2026 Radio Items for Regional Needs Document
Fredrick gave an update on the Regional Needs Document. Radio TOC members may submit information to Fredrick for addition to the document, but it is not required. The document will need to be finalized and approved at the February 2026 Radio TOC meeting.

5. Moves, Additions, & Changes to the System – None

6. Committee Reports
A. Metro Mobility Usage Update
Chad LeVasseur said there are no new updates.

B. System Managers Group/Metro Administrators
The meeting was cancelled.

C. MnDOT ARMER System Update
MnDOT was not available for an update.

D. SECB Committees
i. Steering
Fredrick said the committee met in January 2026. The committee approved two policies to be moved forward to the SECB for inclusion in the SECB policy and procedure manual, reviewed next items for the manual, and discussed items to be included in the upcoming SCIP. The committee is scheduled to meet again in February.

ii. LMR
Mihelich said the committee met and approved numerous participation plan updates.

iii. WBBA
Olson said the committee met and discussed their 2026 plan/strategy and reviewed the cellular survey.

iv. IOC/COMU-STR Workgroup
Timm said the committee met and approved several COMU requests and discussed operation procedures and the strategic plan.

v. IPAWS
Haas said the committee met and approved three new standards.

vi. Finance/Grants Workgroup
Fredrick said the committee met in January 2026. The committee reviewed finance plans for inclusion in the upcoming SCIP, regional needs, carry forward fund use, and an update of the SECB budget. The Grants workgroup is working on recommendations for priorities of the SECB grant. Both committees are scheduled to meet again in February.

7. Other Business
A. ME TAC Permissions Update
Fredrick said the MN Pollution Control Agency/MN Department of Health requested permissions

Metropolitan Emergency Services Board

for clear and the MN Department of Corrections requested permissions to the encrypted talkgroups.

8. Adjourn
The meeting was adjourned at 2:00 p.m.

Metropolitan Emergency Services Board

202~~5~~6 Regional Needs Document

Approved: Ma~~rchy 14~~11, 202~~5~~6

The Metropolitan Emergency Services Board (MESB) is one of seven regional Emergency Communications Boards and Emergency Services Boards in the state of Minnesota. Formed in 1979 under MSS 471.59, and later amended in conformance with MS 403.39, and 403.392, the MESB provides local governance on matters related to emergency communications (9-1-1 and ARMER), as well as 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

The statewide Allied Radio Matrix for Emergency Response (ARMER) system, procured by the Metropolitan Radio Board, 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. Currently, the ARMER system has approximately 125,000 active radios.

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, MnDOT completed its backbone of the ARMER system. There are 335 state-maintained and 100 locally maintained ARMER tower sites on the air across Minnesota. The system provides 95% coverage for mobile radios across the state. Of the 100 local ARMER towers, 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. Currently, the Statewide Emergency Communications Board (SECB), MnDOT, the Minnesota Department of Public Safety (DPS), and ARMER stakeholders endeavor to develop a capital improvement and funding plan to address this need.

In 1979, the Metropolitan 9-1-1 Telephone Board 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 on December 1, 1982, and provided the basis for the statewide buildout of E9-1-1. Today, all 103 PSAPs in the state are part of the network. Of the 103 PSAPs in the state, 24 reside in the metro region. In 2024, the metro region answered 70% of all 9-1-1 calls in the state.

Planning for the 9-1-1 network to transition from E9-1-1 to Next Generation 9-1-1 (NG9-1-1) is underway. NG9-1-1 will provide PSAPs with additional capabilities to answer texts, receive photos and videos, provide improved 9-1-1 caller location, and provide pre-determined rules for routing 9-1-1 calls.

Today, DPS' Emergency Communication Networks (ECN) division contracts and pays for the statewide 9-1-1 network. Local governments pay for costs for a 9-1-1 system associated with receiving 9-1-1 calls and dispatching public safety responders. Local government costs (this is not an exhaustive list) include maintenance of the physical PSAP; salaries/benefits for PSAP employees, including public safety telecommunicators (PSTs), administrative and technical staff, and in some cases, dedicated GIS staff; employee training; purchase and maintenance of call handling equipment (CHE), including software, used to answer 9-1-1 calls; procure and maintain communications/radio equipment used to dispatch response to 9-1-1 calls; software or subscription services for training, quality assurance/quality control, CTO, and location mapping; 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 associated equipment 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 are required in a public safety field, without additional benefits similar to those received by other first responders.

Funding Considerations

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

The following are priorities for regional projects. 9-1-1 projects are listed in priority order, followed by ARMER projects in priority order.

9-1-1 Projects

Comprehensive PSAP Staffing and Operations Study
MESB recognizes a critical need to conduct a comprehensive PSAP Staffing and Operations Study to address existing inconsistencies and establish best-practice guidelines across the region. The study will develop standardized staffing models and operational guidelines, including recommendations on minimum staffing levels relative to call volume, requirements for dedicated Quality Assurance personnel, and mandatory separation of duties for personnel managing law enforcement talk groups and call answering functions. Additionally, it should establish minimum training standards and recommendations for training coordinator positions within each PSAP. This strategic initiative aims to enhance efficiency, operational consistency, and overall service quality in emergency communications in the metro region.

Estimated cost: $250,000

PSAP Continuity of Operations Study
Metro region PSAPs have varying capabilities for continuity of operations. Some PSAPs maintain dedicated backup call centers that can serve both their own operational needs and potentially assist neighboring PSAPs. One PSAP implemented an external agency 9-1-1 call queue, featuring a distinctive ring pattern, allowing for independent call answering separate from their primary lines. Other PSAPs plan to leverage local library facilities during disruptions due to essential services, such as CHE, being cloud-based applications. Other PSAPs have no alternative facility.

The MESB seeks funding for a comprehensive study to evaluate comprehensive PSAP staffing, operations, and current PSAP continuity capabilities and proposals for improvements tailored to regional demographics, call volumes, and operational needs. The study will assess the practicality and benefits of establishing a dedicated regional backup PSAP facility, including recommendations on how regular utilization could ensure operational familiarity and seamless transitions during PSAP relocations.

Estimated cost: $250,000

Computer-Aided Dispatch (CAD)-to-CAD Interoperability Solution
The 24 primary and secondary PSAPs in the metro region desire procurement of 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.

It is anticipated that the solution provides improved situational awareness for metro region PSAPs. Such a solution was found to be a need in the MESB's May/Juen 2020

Civil Unrest After Action Report/Improvement Plan. The solution allows other PSAPs to answer 9-1-1 calls intended for a PSAP which has been inundated with 9-1-1 calls; this provides 9-1-1 callers with better service in extraordinary situations/events.

MESB expects that implementing CAD-to-CAD integration will significantly enhance daily response times for cross-jurisdictional incidents. Currently incident relaying between PSAPs occurs manually, creating delays and increasing the potential for address errors. Automating this process through CAD-to-CAD communication will reduce response times, enhance accuracy, and improve overall operational efficiency.

Estimated cost: $2.7 million - $3.5 million

<u>PSAP Radio Console Replacement</u>
A large majority of ARMER users utilize Motorola MCC 7500 consoles to dispatch public safety resources in response to 9-1-1 calls. Motorola has announced end-of-life of this product and stated that the consoles must be replaced by early 2029 to maintain cybersecurity resilience. In 2024, Motorola stated that if there is one statewide contract to replace all consoles (736 stated in 2024), the cost would approximately be $55,880,000 - $56,500,000. If contract replacement is done via individual agency contracts, the cost was estimated to be $80,000,000 - $92,000,000. The metro region wishes to pursue a joint contract to replace all dispatch consoles in the region. This item includes all consoles except for those explicitly stated in individual agency projects below.

Estimated cost: Approximately $100,000 per console or $36,800,000 total, including encryption

<u>Feasibility and Cost Effectiveness Study on Regional Purchase of PSAP Technology</u>
A cost study initiated by the MESB analyzed 2023 costs of providing public safety communications in the metro region. The study demonstrated the possibility that local units of governments operating PSAP could save significant money if regional technology, such as CAD, logging, and CHE, were deployed. The aim of the feasibility and cost effectiveness study is to determine if cost savings would be realized if regional technology were deployed.

Estimated cost: $200,000

<u>Geo-Diverse 9-1-1 Call Handling Equipment (CHE) ESInet Connections</u>
Taking advantage of geo-diverse technology offered by new CHE platforms allows 9-1-1 calls to be delivered to two locations simultaneously, which is an attractive option for Minnesota PSAPs to provide 9-1-1 network and call delivery redundancy. Geo-diverse configurations split the A and B services typically found at one location, into two separate geo-diverse locations, which allows for additional staff at another location, or PSAP, during extraordinarily 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 ethe 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 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 for PSAP's 9-1-1 system and best serves the residents of its jurisdiction.

Estimated cost: $216,000 annually, in addition to ECN's current costs

GIS Software Services – Web-Based Map Viewer
GIS software services are needed to support the creation, conversion, and maintenance of GIS-derived Master Street Address Guides (MSAGs) for PSAPs in the ten-county metro region. The web-based map viewer allows 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 cost: $353,000 for five years, including implementation costs

Telecommunicator Resiliency Training
Over the last six years, the MESB received grant funds for resiliency training for metro public safety telecommunicators in an effort to maintain their emotional well-being, but also to assist in their retention as employees. In 2025, MESB contracted with Blue Ethos for this training, and it has been very well received. The training given was a shortened version, and there is a desire to provide additional training in the future.

Estimate cost: $100,000

ARMER Projects

Bi-Directional Amplifiers (BDAs) in Schools and Government Buildings
Many government facilities and schools in the region have ARMER coverage gaps and would benefit from having BDAs installed, allowing first responders with ARMER radios to communicate via the ARMER system no matter where in a building the responder is located.

Estimated cost: $40 million in capital costs; $4 million in annual maintenance costs

AES Encryption for Subscriber Radios
The SECB recommends ARMER users transition to Advanced Encryption Standard (AES) encryption for transmitting criminal justice information or sensitive radio transmissions on the ARMER system. To achieve this, supplemental funding is necessary to replace or upgrade existing ARMER subscriber equipment for public safety agencies. It is recommended to most agencies that, as devices are upgraded, purchase AES encryption-capable devices. The Metro Region also desires to procure a key management facility (KMF) device for use across the region.

Estimated cost: $100 million plus $5,000 for initial KMF cost

Vendor-provided Radio Technical Training

According to SECB standards, system administrators are required to complete technical training once every two years. To keep current with evolving technology, vendor technical training must be provided.

Estimated cost: $45,000 annually

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

Estimated cost: $10,000 annually

Ongoing Maintenance for Existing ARMER Infrastructure
Every five years, MnDOT executes a service contract with Motorola for maintenance of and upgrades to the ARMER system. A combination of 9-1-1 fees, state funds, and state trunked highway funds pay for maintenance of state-owned infrastructure. Counties and the City of Minneapolis own local enhancements, which are additional tower sites and/or channels which interconnect to state-owned sites to provide additional coverage and capacity for local users. Though local enhancements are shared with general users of the ARMER system, funding for the enhancements and related backhaul network is provided by the local agency which owns the enhancement. Since the state-owned and locally owned infrastructure form the completed radio network, a funding source to assist in paying for maintenance of all sites must be determined. With a higher-than-expected price increase for the 2026-2030 maintenance agreement, paired with increases in operating costs and the need to replace aging infrastructure, the financial burden on local agencies can no longer be borne without a significant increase to the tax levy.

Estimated cost: $4 million annually

Subscriber Equipment Replacement
Subscriber radios (mobiles and portables) used to communicate via the ARMER system have a finite lifespan. Radios reach end of life status when firmware, batteries, or replacement parts become unavailable. Public safety agencies continuing to use outdated subscriber equipment often results in distorted or incomplete communications. Regular replacement of equipment in the metro region is typically funded locally, using no state or federal funds. Having an additional shared funding source to purchase this equipment would be ideal to ensure the quality and consistency of emergency communications.

Estimated cost: $52 million

Strategic Coverage Enhancement Equipment
Throughout the metro region, a significant number of buildings lack adequate indoor ARMER coverage. Newly constructed structures often do not consider the need for public safety communications when built. The metro region wishes to purchase equipment that enhances coverage in these structures which can be deployed across the region on a rapid deployment basis. The desired equipment includes two mobile transceivers, a portable rack, and a JPS module. The region wishes to purchase two of the packaged units.

Estimated cost: $50,000

In-Building Coverage Assessment Equipment
With discussion about school mapping, the metro region partners have discussed the difficulties in completing coverage assessments to determine where gaps in buildings occur. Furthermore, many regional partners do not have equipment sufficient to perform these assessments. The metro region wished to purchase equipment that can be shared between all regional partners to perform these assessments at any time in the future. The suggested equipment is an Anritsu LMR Site Master S412D.

Estimated cost: $40,000 initial cost, plus $10,000 recurring annual license

Base Station Replacement
The metro region is looking at a proactive approach to come in line with the Motorola lifecycle replacement. In the 2030 Motorola lifecycle plan, base stations will need to be replaced, at a significant cost to local agencies. The metro region also has 10 subsystem sites, which will have a higher replacement cost. This item is meant to be for awareness, as the funding will be needed beginning in State Fiscal Year 2029.

Estimated cost: $89.68 million ($82.5 million for 1500 base stations, $7.18 million for subsystems)

Agency Priorities

The following are local agency priorities, including both 9-1-1 and ARMER projects.

Carver County

Replacement of ARMER Tower Site
Carver County installed ARMER equipment at a tower structure located in Hollywood Township since ARMER's inception. Ownership of the tower has changed from private ownership to ownership by the local township, has been shortened from its original design, and is halfway through its economic lifespan. With permitting, licensing, and construction timelines, the County plans to replace the tower by 20xx.

Estimated cost: $1.5 million

Additional ARMER Local Enhancement Site
Since Carver County built its local enhancement subsystem in the early 2000s, it has identified the need for an additional site. The County wishes to add this site to provide better ARMER coverage for public safety response to emergencies in the Waconia area of the county.

Estimated cost: $1.5 million

CAD Replacement
Carver County 9-1-1 expects to replace its CAD in 2027-2028. This purchase would be made with the potential to interface or integrate with a regional CAD-to-CAD solution.

Estimated cost: $1 million

CHE Upgrade/Replacement
Carver County Sheriff's Office must upgrade its PSAP's CHE. The current system was purchased in 2014 and has had a complete hardware refresh. The current contract expires in May 2027. This system is a shared/hosted system with Ridgeview Medical Center known as CHS-2. The upgrade/replacement CHE will meet NG9-1-1 standards.

Estimated cost: $650,000

9-1-1 Logger Replacement
Carver County's 9-1-1 logger is scheduled for replacement in 2026.

Estimated cost: $400,000

Chisago County

9-1-1 Cybersecurity Equipment
In 2025, Chisago County is undergoing a security audit of its CHE. The county expects to require additional equipment in 2026 to meet cybersecurity requirements of both the county and an NG9-1-1 network.

Estimated cost: $100,000

Replacement of Fire Simulcast Paging System
Chisago County requires replacement of its simulcast fire paging system in 2029.

Estimated cost: $6300,000

CHE Replacement
Chisago County requires replacement of its CHE to maintain compatibility with i3 requirements. Replacement timeline may depend on Minnesota's migration to NG9-1-1.

Estimated cost: $500,000

2027-2028 HVAC Replacement at ARMER Tower Sites
HVAC units at Chisago County-owned ARMER sites require replacement, as tower sites are aging and equipment is nearing the end of expected life.

Estimated cost: $275,000

Back-up Battery Replacement at ARMER Tower Sites
Chisago County plans to replace -48-volt power plant and backup batteries at county-owned ARMER sites in 2027-2028. Equipment at the tower sites is powered by -48 volt DC power, the rectifier power plants convert the AC power from the power company and on-site generator into DC power. The backup batteries power the equipment during power outages until the on-site generator starts up and can produce power for the equipment.

Estimated cost: $175,000

Tower Site Replacement/Repair Needs
The tower sites in Chisago County have significant replacement and repair needs in current year and over the decade. These replacement and repair needs include, but are not limited to, service contracts, tower rent and utilities, exterior site maintenance, and antenna maintenance.

Estimated cost: $1,849,050, with approximately $164,000 needed in 2026.

Subscriber and Console Replacement Needs

The subscriber units and consoles at Chisago County have significant replacement needs over the next ten years. These replacement needs include, but are not limited to, subscriber flashes, radio accessories and batteries, and service monitors.

Estimated cost: $2,356,100 in future (after 2026) need.

Dakota County/Dakota 9-1-1

Additional ARMER Local Enhancement Site
Since Dakota County built its local enhancement subsystem, the need for an additional 11th site was identified. The County wishes to add this site to provide better ARMER coverage for public safety response to emergencies in the Castle Rock area of the county.

Estimated cost: $1.5 million

CAD Replacement
Dakota 9-1-1 expects to replace its CAD in 2028. It is possible that this procurement could be leveraged to result in a regional CAD procurement, dependent on the results of the aforementioned Feasibility and Cost Effectiveness Study.

Estimated cost: $3 million (county only)

CHE Replacement
Dakota 9-1-1 is currently part of the statewide Motorola Software as a Service (SaaS) CHE system, with the contract terminating in 2028. The county has experienced several technical issues resulting in the CHE going down and requiring 9-1-1 calls to be alternately routed; these experiences resulted in concern regarding the viability of the state's fifth largest PSAP (by 2024 call volume) operating on this shared system.

Estimated cost: $825,000 over five years, plus non-recurring charges

9-1-1 Logger Replacement
Dakota 9-1-1's 9-1-1 logger is scheduled for replacement in 2030.

Estimated cost: $266,000

Tower Site Replacement/Repair Needs
The 10 tower sites in Dakota County have significant replacement and repair needs in current year. These replacement and repair needs include service contracts, door access and alarms, and combiners for the 2026 fiscal year.

Estimated cost: $139,000

Hennepin County

Additional ARMER Local Enhancement Site
Hennepin County identified a need to add (an) additional ARMER tower site to its Hennepin East local enhancement subsystem to provide better ARMER coverage for public safety response in the Edina area(s) of the county.

Estimated cost: $2.5 million

Isanti County

Upgrade Existing Fire Rescue Paging System to Simulcast Paging System
Isanti County is needing to upgrade its existing fire rescue paging system. It is currently end of life. Ideally, Isanti County would like to upgrade the current system and add an additional site. If this option is not feasible, upgrading with existing sites would be acceptable.

Estimated Cost: $465,000 to $753,000

Ramsey County

2029-2032 ARMER Equipment Platform Replacement
In the 2029-2032 timeframe, Ramsey County will replace existing ARMER equipment which is facing manufacturer end-of-life. The equipment to be replaced includes the prime site controller and 168 base stations for Ramsey County's seven-site ARMER subsystem.

Estimated cost: $10 million

Scott County

Additional ARMER Local Enhancement Site
Scott County identified a need to add an additional ARMER tower site to the local enhancement subsystem it owns with Carver County. The additional site would provide improved ARMER coverage for public safety response in the Shakopee area of the county.

Estimated cost: $1.75 million

Sherburne County

Upgrade to Fire & EMS Simulcast Paging System
Sherburne County requires an upgrade to its simulcast paging system to page out fire and EMS responders.

Estimated cost: $360,000

Washington County

Additional ARMER Local Enhancement Site
Since Washington County built its local enhancement subsystem, the need for an additional 15th site was identified. The County wishes to add this site to provide better ARMER coverage for public safety response to emergencies in the southern area of the county, primarily the City of Cottage Grove.

Estimated cost: $1.5 million

2027 CHE Upgrade
Washington County Sheriff's Office must upgrade its PSAP's CHE. Its current system was installed in 2021 and will require an upgrade for cybersecurity, additional functionality, and to continue to be ready for NG9-1-1.

Estimated cost: $1 million

2027 PSAP Backup Center
Washington County has purchased property on which it plans to build a back-up center for its PSAP. The County is in the planning stage for this project

Estimated cost: $2 million

Tower Site Replacement/Repair Needs
Washington County owns nine ARMER tower sites, all of which have significant replacement and repair needs in current year and over the next two decades. These replacement and repair needs include, but are not limited to, service contracts, tower rent and utilities, exterior site maintenance, and antenna maintenance.

Estimated cost: $2,271,400, with approximately $485,000 needed in 2026.

City of Bloomington

Microwave Link Upgrade
The City of Bloomington has a microwave link connecting its PSAP to the ARMER system which requires an upgrade.

Estimated cost: $130,000

CAD Replacement
The City of Bloomington anticipates a CAD replacement in 2028-2029. It is possible that this procurement could be leveraged to result in a regional CAD procurement, dependent on the results of the aforementioned Feasibility and Cost Effectiveness Study.

Estimated cost: $1 million

City of Eden Prairie

2026 Console Replacement
The City of Eden Prairie is building a new 9-1-1 center and requires new consoles for the center. The city will purchase the new AXS dispatch consoles and will do so before the required 2029 upgrade.

Estimated cost: $901,747

City of Minneapolis

2028-2032 ARMER Equipment Platform Replacement
In the 2028-2032 timeframe, the City of Minneapolis will replace existing ARMER equipment facing manufacturer end-of-life. The equipment to be replaced includes the prime site controller and 84 base stations for the four-tower city ARMER subsystem.

Estimated cost: $5.1 million

2028-2032 Replacement of Existing 9-1-1 and Backup Consoles

In the 2028-2032 timeframe, the City of Minneapolis will need to replace all ARMER radio dispatch consoles as approaching manufacturer end-of-life.

Estimated cost: $2.7 million

2026-2034 Tower Site Replacement Needs

Over the next eight years, the City of Minneapolis will need to replace backup generators, -48Vdc battery plants, and HVAC systems for the ARMER subsystem sites.

Estimated cost: $80,000

City of St. Louis Park

2027 Console Replacement
City of St. Louis Park is planning a new police building, which would include a new PSAP. Should these plans move forward, the City will require replacement of its four

current consoles as well as four additional consoles in 2027, which includes two for working Supervisor/Lead Dispatcher offices.

Estimated cost: $900,000 - $1.5 million

Consolette Replacement
St. Louis Park has ten consolettes for varying functions in its PSAP. Three consolettes serve as back-up radios for the City's COOP plan, six are used for logging, and one is for use in the PSAP's restroom. These radios are end-of-life on June 30, 2025.

Estimated cost: $70,000

2026 CAD/RMS Replacement
City of St. Louis Park plans to procure new CAD and RMS in June 2026. The procurement may be a stand-alone system, or it may leverage the City of Edina's CAD/RMS and share the technology. It is possible that this procurement could be leveraged to result in a regional CAD procurement, dependent on the results of the aforementioned Feasibility and Cost Effectiveness Study.

Estimated cost: $450,000 (if shared with Edina) or $950,000

MSP Airport 9-1-1

2026 Console Addition
MSP Airport 9-1-1 plans to add a five-console site, plus AIS, to serve as a backup to its current PSAP prior to the completion of its new PSAP.

Estimated cost: $600,000

2027 Console Replacement
MSP Airport 9-1-1 is building a new PSAP and plans to replace its consoles before occupancy in mid-2027.

Estimated cost: $900,000

ARMER Microwave Link Upgrade
MSP Airport needs to upgrade its ARMER microwave link connecting its PSAP to the ARMER network.

Estimated cost: $150,000

Hennepin EMS

2027 Console Replacement
Hennepin EMS is in the planning process for a new emergency communications center, which will double its current console count to 12. This change will occur prior to the required 2029 upgrade.

Estimated cost: $1.080 million

M Health Fairview EMS

2026-2027 Additional Console Purchase
M Health Fairview EMS plans to purchase two MCC7500e consoles in the next one to two years.

Estimated cost: $100,000

Metro Transit

2025 Console Upgrade
Metro Transit will upgrade its consoles in 2025.

Estimated cost: $750,000 (funding secured)

Joint Operations Center
By 2030, Metro Transit plans to build a joint operations center to combine rail, bus, and police operations in one center.

Estimated cost: $30 million

New CHE Purchase
Metro Transit plans to purchase new CHE in the fourth quarter 2025 or first quarter 2026.

Estimated cost: $1 million

Metropolitan Emergency Services Board

2026 Regional Needs Document

Approved: March 11, 2026

The Metropolitan Emergency Services Board (MESB) is one of seven regional Emergency Communications Boards and Emergency Services Boards in the state of Minnesota. Formed in 1979 under MSS 471.59, and later amended in conformance with MS 403.39, and 403.392, the MESB provides local governance on matters related to emergency communications (9-1-1 and ARMER), as well as 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

The statewide Allied Radio Matrix for Emergency Response (ARMER) system, procured by the Metropolitan Radio Board, 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. Currently, the ARMER system has approximately 125,000 active radios.

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, MnDOT completed its backbone of the ARMER system. There are 335 state-maintained and 100 locally maintained ARMER tower sites on the air across Minnesota. The system provides 95% coverage for mobile radios across the state. Of the 100 local ARMER towers, 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. Currently, the Statewide Emergency Communications Board (SECB), MnDOT, the Minnesota Department of Public Safety (DPS), and ARMER stakeholders endeavor to develop a capital improvement and funding plan to address this need.

In 1979, the Metropolitan 9-1-1 Telephone Board 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 on December 1, 1982, and provided the basis for the statewide buildout of E9-1-1. Today, all 103 PSAPs in the state are part of the network. Of the 103 PSAPs in the state, 24 reside in the metro region. In 2024, the metro region answered 70% of all 9-1-1 calls in the state.

Planning for the 9-1-1 network to transition from E9-1-1 to Next Generation 9-1-1 (NG9-1-1) is underway. NG9-1-1 will provide PSAPs with additional capabilities to answer texts, receive photos and videos, provide improved 9-1-1 caller location, and provide pre-determined rules for routing 9-1-1 calls.

Today, DPS' Emergency Communication Networks (ECN) division contracts and pays for the statewide 9-1-1 network. Local governments pay for costs for a 9-1-1 system associated with receiving 9-1-1 calls and dispatching public safety responders. Local government costs (this is not an exhaustive list) include maintenance of the physical PSAP; salaries/benefits for PSAP employees, including public safety telecommunicators (PSTs), administrative and technical staff, and in some cases, dedicated GIS staff; employee training; purchase and maintenance of call handling equipment (CHE), including software, used to answer 9-1-1 calls; procure and maintain communications/radio equipment used to dispatch response to 9-1-1 calls; software or subscription services for training, quality assurance/quality control, CTO, and location mapping; 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 associated equipment 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 are required in a public safety field, without additional benefits similar to those received by other first responders.

Funding Considerations

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

The following are priorities for regional projects. 9-1-1 projects are listed in priority order, followed by ARMER projects in priority order.

9-1-1 Projects

<u>Comprehensive PSAP Staffing and Operations Study</u>
MESB recognizes a critical need to conduct a comprehensive PSAP Staffing and Operations Study to address existing inconsistencies and establish best-practice guidelines across the region. The study will develop standardized staffing models and operational guidelines, including recommendations on minimum staffing levels relative to call volume, requirements for dedicated Quality Assurance personnel, and mandatory separation of duties for personnel managing law enforcement talk groups and call answering functions. Additionally, it should establish minimum training standards and recommendations for training coordinator positions within each PSAP. This strategic initiative aims to enhance efficiency, operational consistency, and overall service quality in emergency communications in the metro region.

Estimated cost: $250,000

<u>PSAP Continuity of Operations Study</u>
Metro region PSAPs have varying capabilities for continuity of operations. Some PSAPs maintain dedicated backup call centers that can serve both their own operational needs and potentially assist neighboring PSAPs. One PSAP implemented an external agency 9-1-1 call queue, featuring a distinctive ring pattern, allowing for independent call answering separate from their primary lines. Other PSAPs plan to leverage local library facilities during disruptions due to essential services, such as CHE, being cloud-based applications. Other PSAPs have no alternative facility.

The MESB seeks funding for a comprehensive study to evaluate comprehensive PSAP staffing, operations, and current PSAP continuity capabilities and proposals for improvements tailored to regional demographics, call volumes, and operational needs. The study will assess the practicality and benefits of establishing a dedicated regional backup PSAP facility, including recommendations on how regular utilization could ensure operational familiarity and seamless transitions during PSAP relocations.

Estimated cost: $250,000

<u>Computer-Aided Dispatch (CAD)-to-CAD Interoperability Solution</u>
The 24 primary and secondary PSAPs in the metro region desire procurement of 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.

It is anticipated that the solution provides improved situational awareness for metro region PSAPs. Such a solution was found to be a need in the MESB's May/Juen 2020

Civil Unrest After Action Report/Improvement Plan. The solution allows other PSAPs to answer 9-1-1 calls intended for a PSAP which has been inundated with 9-1-1 calls; this provides 9-1-1 callers with better service in extraordinary situations/events.

MESB expects that implementing CAD-to-CAD integration will significantly enhance daily response times for cross-jurisdictional incidents. Currently incident relaying between PSAPs occurs manually, creating delays and increasing the potential for address errors. Automating this process through CAD-to-CAD communication will reduce response times, enhance accuracy, and improve overall operational efficiency.

Estimated cost: $2.7 million - $3.5 million

<u>PSAP Radio Console Replacement</u>
A large majority of ARMER users utilize Motorola MCC 7500 consoles to dispatch public safety resources in response to 9-1-1 calls. Motorola has announced end-of-life of this product and stated that the consoles must be replaced by early 2029 to maintain cybersecurity resilience. In 2024, Motorola stated that if there is one statewide contract to replace all consoles (736 stated in 2024), the cost would approximately be $55,880,000 - $56,500,000. If contract replacement is done via individual agency contracts, the cost was estimated to be $80,000,000 - $92,000,000. The metro region wishes to pursue a joint contract to replace all dispatch consoles in the region. This item includes all consoles except for those explicitly stated in individual agency projects below.

Estimated cost: Approximately $100,000 per console or $36,800,000 total, including encryption

<u>Feasibility and Cost Effectiveness Study on Regional Purchase of PSAP Technology</u>
A cost study initiated by the MESB analyzed 2023 costs of providing public safety communications in the metro region. The study demonstrated the possibility that local units of governments operating PSAP could save significant money if regional technology, such as CAD, logging, and CHE, were deployed. The aim of the feasibility and cost effectiveness study is to determine if cost savings would be realized if regional technology were deployed.

Estimated cost: $200,000

<u>Geo-Diverse 9-1-1 Call Handling Equipment (CHE) ESInet Connections</u>
Taking advantage of geo-diverse technology offered by new CHE platforms allows 9-1-1 calls to be delivered to two locations simultaneously, which is an attractive option for Minnesota PSAPs to provide 9-1-1 network and call delivery redundancy. Geo-diverse configurations split the A and B services typically found at one location, into two separate geo-diverse locations, which allows for additional staff at another location, or PSAP, during extraordinarily 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 ethe 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 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 for PSAP's 9-1-1 system and best serves the residents of its jurisdiction.

Estimated cost: $216,000 annually, in addition to ECN's current costs

GIS Software Services – Web-Based Map Viewer
GIS software services are needed to support the creation, conversion, and maintenance of GIS-derived Master Street Address Guides (MSAGs) for PSAPs in the ten-county metro region. The web-based map viewer allows 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 cost: $353,000 for five years, including implementation costs

Telecommunicator Resiliency Training
Over the last six years, the MESB received grant funds for resiliency training for metro public safety telecommunicators in an effort to maintain their emotional well-being, but also to assist in their retention as employees. In 2025, MESB contracted with Blue Ethos for this training, and it has been very well received. The training given was a shortened version, and there is a desire to provide additional training in the future.

Estimate cost: $100,000

ARMER Projects

Bi-Directional Amplifiers (BDAs) in Schools and Government Buildings
Many government facilities and schools in the region have ARMER coverage gaps and would benefit from having BDAs installed, allowing first responders with ARMER radios to communicate via the ARMER system no matter where in a building the responder is located.

Estimated cost: $40 million in capital costs; $4 million in annual maintenance costs

AES Encryption for Subscriber Radios
The SECB recommends ARMER users transition to Advanced Encryption Standard (AES) encryption for transmitting criminal justice information or sensitive radio transmissions on the ARMER system. To achieve this, supplemental funding is necessary to replace or upgrade existing ARMER subscriber equipment for public safety agencies. It is recommended to most agencies that, as devices are upgraded, purchase AES encryption-capable devices. The Metro Region also desires to procure a key management facility (KMF) device for use across the region.

Estimated cost: $100 million plus $5,000 for initial KMF cost

Vendor-provided Radio Technical Training

According to SECB standards, system administrators are required to complete technical training once every two years. To keep current with evolving technology, vendor technical training must be provided.

Estimated cost: $45,000 annually

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

Estimated cost: $10,000 annually

Ongoing Maintenance for Existing ARMER Infrastructure
Every five years, MnDOT executes a service contract with Motorola for maintenance of and upgrades to the ARMER system. A combination of 9-1-1 fees, state funds, and state trunked highway funds pay for maintenance of state-owned infrastructure. Counties and the City of Minneapolis own local enhancements, which are additional tower sites and/or channels which interconnect to state-owned sites to provide additional coverage and capacity for local users. Though local enhancements are shared with general users of the ARMER system, funding for the enhancements and related backhaul network is provided by the local agency which owns the enhancement. Since the state-owned and locally owned infrastructure form the completed radio network, a funding source to assist in paying for maintenance of all sites must be determined. With a higher-than-expected price increase for the 2026-2030 maintenance agreement, paired with increases in operating costs and the need to replace aging infrastructure, the financial burden on local agencies can no longer be borne without a significant increase to the tax levy.

Estimated cost: $4 million annually

Subscriber Equipment Replacement
Subscriber radios (mobiles and portables) used to communicate via the ARMER system have a finite lifespan. Radios reach end of life status when firmware, batteries, or replacement parts become unavailable. Public safety agencies continuing to use outdated subscriber equipment often results in distorted or incomplete communications. Regular replacement of equipment in the metro region is typically funded locally, using no state or federal funds. Having an additional shared funding source to purchase this equipment would be ideal to ensure the quality and consistency of emergency communications.

Estimated cost: $52 million

In-Building Coverage Assessment Equipment
With discussion about school mapping, the metro region partners have discussed the difficulties in completing coverage assessments to determine where gaps in buildings occur. Furthermore, many regional partners do not have equipment sufficient to perform these assessments. The metro region wished to purchase equipment that can be shared between all regional partners to perform these assessments at any time in the future. The suggested equipment is an Anritsu LMR Site Master S412D.

Estimated cost: $40,000 initial cost, plus $10,000 recurring annual license

Base Station Replacement
The metro region is looking at a proactive approach to come in line with the Motorola lifecycle replacement. In the 2030 Motorola lifecycle plan, base stations will need to be replaced, at a significant cost to local agencies. The metro region also has 10 subsystem sites, which will have a higher replacement cost. This item is meant to be for awareness, as the funding will be needed beginning in State Fiscal Year 2029.

Estimated cost: $89.68 million ($82.5 million for 1500 base stations, $7.18 million for subsystems)

Agency Priorities

The following are local agency priorities, including both 9-1-1 and ARMER projects.

Carver County

Replacement of ARMER Tower Site
Carver County installed ARMER equipment at a tower structure located in Hollywood Township since ARMER's inception. Ownership of the tower has changed from private ownership to ownership by the local township, has been shortened from its original design, and is halfway through its economic lifespan. With permitting, licensing, and construction timelines, the County plans to replace the tower by 20xx.

Estimated cost: $1.5 million

Additional ARMER Local Enhancement Site
Since Carver County built its local enhancement subsystem in the early 2000s, it has identified the need for an additional site. The County wishes to add this site to provide better ARMER coverage for public safety response to emergencies in the Waconia area of the county.

Estimated cost: $1.5 million

CAD Replacement
Carver County 9-1-1 expects to replace its CAD in 2027-2028. This purchase would be made with the potential to interface or integrate with a regional CAD-to-CAD solution.

Estimated cost: $1 million

CHE Upgrade/Replacement
Carver County Sheriff's Office must upgrade its PSAP's CHE. The current system was purchased in 2014 and has had a complete hardware refresh. The current contract expires in May 2027. This system is a shared/hosted system with Ridgeview Medical Center known as CHS-2. The upgrade/replacement CHE will meet NG9-1-1 standards.

Estimated cost: $650,000

9-1-1 Logger Replacement
Carver County's 9-1-1 logger is scheduled for replacement in 2026.

Estimated cost: $400,000

Chisago County

9-1-1 Cybersecurity Equipment
In 2025, Chisago County is undergoing a security audit of its CHE. The county expects to require additional equipment in 2026 to meet cybersecurity requirements of both the county and an NG9-1-1 network.

Estimated cost: $100,000

Replacement of Fire Simulcast Paging System
Chisago County requires replacement of its simulcast fire paging system in 2029.

Estimated cost: $600,000

CHE Replacement
Chisago County requires replacement of its CHE to maintain compatibility with i3 requirements. Replacement timeline may depend on Minnesota's migration to NG9-1-1.

Estimated cost: $500,000

2027-2028 HVAC Replacement at ARMER Tower Sites
HVAC units at Chisago County-owned ARMER sites require replacement, as tower sites are aging and equipment is nearing the end of expected life.

Estimated cost: $275,000

Back-up Battery Replacement at ARMER Tower Sites
Chisago County plans to replace -48-volt power plant and backup batteries at county-owned ARMER sites in 2027-2028. Equipment at the tower sites is powered by -48 volt DC power, the rectifier power plants convert the AC power from the power company and on-site generator into DC power. The backup batteries power the equipment during power outages until the on-site generator starts up and can produce power for the equipment.

Estimated cost: $175,000

Tower Site Replacement/Repair Needs
The tower sites in Chisago County have significant replacement and repair needs in current year and over the decade. These replacement and repair needs include, but are not limited to, service contracts, tower rent and utilities, exterior site maintenance, and antenna maintenance.

Estimated cost: $1,849,050, with approximately $164,000 needed in 2026.

Subscriber and Console Replacement Needs

The subscriber units and consoles at Chisago County have significant replacement needs over the next ten years. These replacement needs include, but are not limited to, subscriber flashes, radio accessories and batteries, and service monitors.

Estimated cost: $2,356,100 in future (after 2026) need.

Dakota County/Dakota 9-1-1

Additional ARMER Local Enhancement Site
Since Dakota County built its local enhancement subsystem, the need for an additional 11th site was identified. The County wishes to add this site to provide better ARMER coverage for public safety response to emergencies in the Castle Rock area of the county.

Estimated cost: $1.5 million

CAD Replacement
Dakota 9-1-1 expects to replace its CAD in 2028. It is possible that this procurement could be leveraged to result in a regional CAD procurement, dependent on the results of the aforementioned Feasibility and Cost Effectiveness Study.

Estimated cost: $3 million (county only)

CHE Replacement
Dakota 9-1-1 is currently part of the statewide Motorola Software as a Service (SaaS) CHE system, with the contract terminating in 2028. The county has experienced several technical issues resulting in the CHE going down and requiring 9-1-1 calls to be alternately routed; these experiences resulted in concern regarding the viability of the state's fifth largest PSAP (by 2024 call volume) operating on this shared system.

Estimated cost: $825,000 over five years, plus non-recurring charges

9-1-1 Logger Replacement
Dakota 9-1-1's 9-1-1 logger is scheduled for replacement in 2030.

Estimated cost: $266,000

Tower Site Replacement/Repair Needs
The 10 tower sites in Dakota County have significant replacement and repair needs in current year. These replacement and repair needs include service contracts, door access and alarms, and combiners for the 2026 fiscal year.

Estimated cost: $139,000

Hennepin County

Additional ARMER Local Enhancement Site
Hennepin County identified a need to add (an) additional ARMER tower site to its
Hennepin East local enhancement subsystem to provide better ARMER coverage for
public safety response in the Edina area(s) of the county.

Estimated cost: $2.5 million

Isanti County

Upgrade Existing Fire Rescue Paging System to Simulcast Paging System
Isanti County is needing to upgrade its existing fire rescue paging system. It is currently
end of life. Ideally, Isanti County would like to upgrade the current system and add an
additional site. If this option is not feasible, upgrading with existing sites would be
acceptable.

Estimated Cost: $465,000 to $753,000

Ramsey County

2029-2032 ARMER Equipment Platform Replacement
In the 2029-2032 timeframe, Ramsey County will replace existing ARMER equipment
which is facing manufacturer end-of-life. The equipment to be replaced includes the
prime site controller and 168 base stations for Ramsey County's seven-site ARMER
subsystem.

Estimated cost: $10 million

Scott County

Additional ARMER Local Enhancement Site
Scott County identified a need to add an additional ARMER tower site to the local
enhancement subsystem it owns with Carver County. The additional site would provide
improved ARMER coverage for public safety response in the Shakopee area of the
county.

Estimated cost: $1.75 million

Sherburne County

Upgrade to Fire & EMS Simulcast Paging System
Sherburne County requires an upgrade to its simulcast paging system to page out fire
and EMS responders.

Estimated cost: $360,000

Washington County

Additional ARMER Local Enhancement Site
Since Washington County built its local enhancement subsystem, the need for an additional 15th site was identified. The County wishes to add this site to provide better ARMER coverage for public safety response to emergencies in the southern area of the county, primarily the City of Cottage Grove.

Estimated cost: $1.5 million

2027 CHE Upgrade
Washington County Sheriff's Office must upgrade its PSAP's CHE. Its current system was installed in 2021 and will require an upgrade for cybersecurity, additional functionality, and to continue to be ready for NG9-1-1.

Estimated cost: $1 million

2027 PSAP Backup Center
Washington County has purchased property on which it plans to build a back-up center for its PSAP. The County is in the planning stage for this project

Estimated cost: $2 million

Tower Site Replacement/Repair Needs
Washington County owns nine ARMER tower sites, all of which have significant replacement and repair needs in current year and over the next two decades. These replacement and repair needs include, but are not limited to, service contracts, tower rent and utilities, exterior site maintenance, and antenna maintenance.

Estimated cost: $2,271,400, with approximately $485,000 needed in 2026.

City of Bloomington

Microwave Link Upgrade
The City of Bloomington has a microwave link connecting its PSAP to the ARMER system which requires an upgrade.

Estimated cost: $130,000

CAD Replacement
The City of Bloomington anticipates a CAD replacement in 2028-2029. It is possible that this procurement could be leveraged to result in a regional CAD procurement, dependent on the results of the aforementioned Feasibility and Cost Effectiveness Study.

Estimated cost: $1 million

City of Eden Prairie

2026 Console Replacement
The City of Eden Prairie is building a new 9-1-1 center and requires new consoles for the center. The city will purchase the new AXS dispatch consoles and will do so before the required 2029 upgrade.

Estimated cost: $901,747

City of Minneapolis

2028-2032 ARMER Equipment Platform Replacement
In the 2028-2032 timeframe, the City of Minneapolis will replace existing ARMER equipment facing manufacturer end-of-life. The equipment to be replaced includes the prime site controller and 84 base stations for the four-tower city ARMER subsystem.

Estimated cost: $5.1 million

2028-2032 Replacement of Existing 9-1-1 and Backup Consoles

In the 2028-2032 timeframe, the City of Minneapolis will need to replace all ARMER radio dispatch consoles as approaching manufacturer end-of-life.

Estimated cost: $2.7 million

2026-2034 Tower Site Replacement Needs

Over the next eight years, the City of Minneapolis will need to replace backup generators, -48Vdc battery plants, and HVAC systems for the ARMER subsystem sites.

Estimated cost: $80,000

City of St. Louis Park

2027 Console Replacement
City of St. Louis Park is planning a new police building, which would include a new PSAP. Should these plans move forward, the City will require replacement of its four

current consoles as well as four additional consoles in 2027, which includes two for working Supervisor/Lead Dispatcher offices.

Estimated cost: $900,000 - $1.5 million

Consolette Replacement
St. Louis Park has ten consolettes for varying functions in its PSAP. Three consolettes serve as back-up radios for the City's COOP plan, six are used for logging, and one is for use in the PSAP's restroom. These radios are end-of-life on June 30, 2025.

Estimated cost: $70,000

2026 CAD/RMS Replacement
City of St. Louis Park plans to procure new CAD and RMS in June 2026. The procurement may be a stand-alone system, or it may leverage the City of Edina's CAD/RMS and share the technology. It is possible that this procurement could be leveraged to result in a regional CAD procurement, dependent on the results of the aforementioned Feasibility and Cost Effectiveness Study.

Estimated cost: $450,000 (if shared with Edina) or $950,000

MSP Airport 9-1-1

2026 Console Addition
MSP Airport 9-1-1 plans to add a five-console site, plus AIS, to serve as a backup to its current PSAP prior to the completion of its new PSAP.

Estimated cost: $600,000

2027 Console Replacement
MSP Airport 9-1-1 is building a new PSAP and plans to replace its consoles before occupancy in mid-2027.

Estimated cost: $900,000

ARMER Microwave Link Upgrade
MSP Airport needs to upgrade its ARMER microwave link connecting its PSAP to the ARMER network.

Estimated cost: $150,000

Hennepin EMS

2027 Console Replacement
Hennepin EMS is in the planning process for a new emergency communications center, which will double its current console count to 12. This change will occur prior to the required 2029 upgrade.

Estimated cost: $1.080 million

M Health Fairview EMS

2026-2027 Additional Console Purchase
M Health Fairview EMS plans to purchase two MCC7500e consoles in the next one to two years.

Estimated cost: $100,000

Metro Transit

2025 Console Upgrade
Metro Transit will upgrade its consoles in 2025.

Estimated cost: $750,000 (funding secured)

<u>Joint Operations Center</u>
By 2030, Metro Transit plans to build a joint operations center to combine rail, bus, and police operations in one center.

Estimated cost: $30 million

<u>New CHE Purchase</u>
Metro Transit plans to purchase new CHE in the fourth quarter 2025 or first quarter 2026.

Estimated cost: $1 million