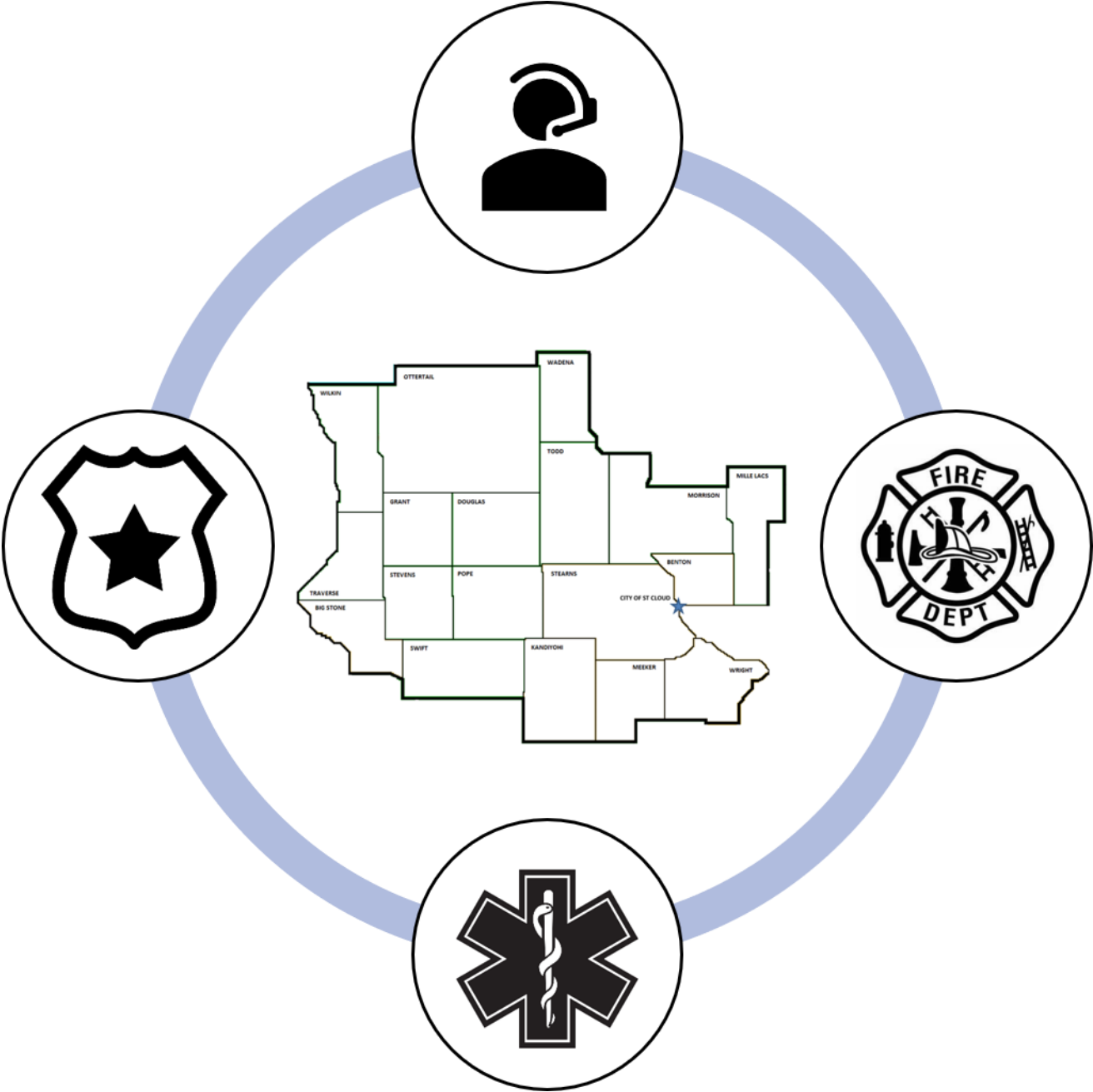
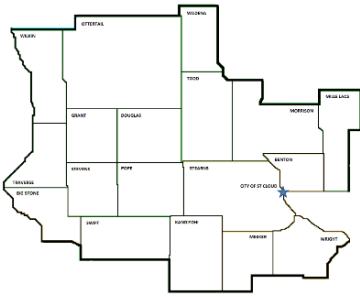


Central Minnesota Emergency Services Board

Regional Needs: Emergency Communications



The Central Minnesota Emergency Services Board



The Central Minnesota Emergency Services Board is one of seven regional Emergency Communications Boards (ECBs) and Emergency Services Boards (ESBs) in the state of Minnesota that have been established under MSS 403.39 and MSS 403.392 to provide local governance on matters related to emergency communications. The board’s membership includes representatives from the following entities: City of St. Cloud, Benton County, Big Stone County, Douglas County, Grant County, Kandiyohi County, Meeker County, Mille Lacs County, Morrison County, Otter Tail County, Pope County, Stearns County, Stevens County, Swift County, Todd County, Traverse County, Wadena County, Wilkin County, and Wright County.

The ‘ARMER’ Public Safety Radio System

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 911 dispatch centers (also known as Public Safety Answering Points or PSAPs), law enforcement, fire, Emergency Medical Service (EMS), emergency management, public works, and other public safety users across Minnesota.



The ARMER system build-out began in the Twin Cities metropolitan area during the late 1990s and was expanded to include greater Minnesota in the mid-2000s. In late 2020, the MnDOT portion of the ARMER system buildout was completed. 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.

As the ARMER system matures, there is an increasing need to maintain and replace 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.

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, 911 special revenue funds, and radio tower lease receipts.

With the exception of PSAP equipment and a limited portion of local infrastructure expenses, which can be funded via the 911 special revenue funds, local costs associated with the ARMER system are typically funded via general fund expenditures. Due to these constraints, public safety agencies across Minnesota are facing significant funding challenges related to the escalating costs of ARMER system infrastructure, equipment, and technology. Without access to a stable, adequate supplemental funding source, it will be increasingly difficult for local entities to support their ongoing ARMER system maintenance and sustainment needs. This is particularly true in the Central Minnesota ESB region, where 10 of the 18 member counties have the lowest classification of Net Tax Capacity values ([Net Tax Capacity by County and Property Type, 2020](#)).

Regional Priorities Total = \$29,492,871.80

Local Coverage Gaps

While the ARMER system provides mobile radio coverage to 95% of the state's geographic area, gaps in local coverage exist within the region. Supplemental funding is necessary to ensure that emergency responder radios and pagers will work in schools, hospitals, businesses, and other key facilities.

Estimated cost: ~\$2,959,196.32

Emergency Responder Paging Systems

In several jurisdictions within the region, firefighters and EMS responders rely on aging VHF paging systems to notify them of an emergency. These systems are overdue for replacement and supplemental funding is necessary to transition the PSAPs paging capabilities to the ARMER system.

Estimated cost: ~\$1,253,805.00

Public Safety Answering Points (PSAP) Equipment

Several PSAPs within the region must upgrade their ARMER dispatch console system equipment to improve communications capabilities with emergency responders. Supplemental funding is necessary to assist with these equipment acquisitions. Along with that they need to prepare for updating their Call Handling Equipment (CPE) and paging equipment for NG911 purposes.

Estimated cost: ~\$1,045,800.00

Subscriber Equipment

First and second-generation ARMER system radios used by many of the volunteer fire departments and Emergency Medical Service (EMS) providers within the region are long overdue for replacement. Due to the escalating cost of this equipment, supplemental funding is necessary to assist with these purchases.

Estimated cost: ~\$22,482,020.48

Local Infrastructure

Several jurisdictions within the region have invested in additional ARMER system infrastructure to meet their operational needs. As this infrastructure ages and new technology is introduced, supplemental funding is necessary to assist with the upgrade and/or replacement costs.

Estimated cost: ~\$1,491,050.00

Advanced Encryption Standard (AES) Encryption

The Statewide Emergency Communication Board (SECB) has recommended 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 cost: ~\$261,000.00

Individual Member Priorities

County/Location	Item Description	Budgeted Cost	Needs Category
City of St. Cloud			
	Radio Coverage BDA - Police Station	\$ 250,000.00	Local Coverage Gaps
	Subscriber Equipment	\$ 8,000,000.00	Subscriber Equipment
	Local Infrastructure - LEC Conventional 800Mhz Repeater	\$ 27,000.00	Local Infrastructure
	Local Infrastructure - ARMER Microwave	\$ 50,000.00	Local Infrastructure
Benton County			
	BDA in Law Enforcement Center	\$ 40,000.00	Local Coverage Gaps
	BDA in Foley Schools	\$ 40,000.00	Local Coverage Gaps
	BDA in Foley City Hall	\$ 40,000.00	Local Coverage Gaps
	BDA in ROMA Foods	\$ 40,000.00	Local Coverage Gaps
	Subscriber Equipment - Rice Fire	\$ 80,000.00	Subscriber Equipment
	Subscriber Equipment - Foley Fire	\$ 80,000.00	Subscriber Equipment
Big Stone County			
	Public Safety Answering PSAP Equipment - Control Stations	\$ 30,000.00	Public Safety Answering Point (PSAP) Equipment
	Subscriber Equipment	\$ 960,770.00	Subscriber Equipment
	Emergency Responder Paging System	\$ 67,500.00	Emergency Responder Paging System
Douglas County			
	Osakis High School BDA	\$ 54,782.48	Local Coverage Gaps
Grant County			
	Advanced Encryption Standard AES Encryption	\$ 136,000.00	Advanced Encryption Standard AES Encryption
	Subscriber Equipment	\$ 1,140,500.00	Subscriber Equipment
	Local Infrastructure - ARMER Microwave & Fiber Back-Haul	\$ 50,000.00	Local Infrastructure
	Public Safety Answering PSAP Equipment - Control Stations	\$ 20,000.00	Public Safety Answering Point (PSAP) Equipment
Kandiyohi County			
	Radio Coverage BDA - KMS High School	\$ 40,000.00	Local Coverage Gaps
	Radio Coverage BDA - KMS Elementary School	\$ 40,000.00	Local Coverage Gaps
	Subscriber Equipment	\$ 1,748,000.00	Subscriber Equipment
	Radio Coverage BDA - Law Enforcement Center	\$ 30,000.00	Local Coverage Gaps
	Local Infrastructure - ARMER Microwave	\$ 240,000.00	Local Infrastructure
Meeker County			
	Local Infrastructure - ARMER Microwave	\$ 250,000.00	Local Infrastructure
	Emergency Responder Paging System	\$ 250,000.00	Emergency Responder Paging System
	Radio Coverage BDA - ACGC Schools	\$ 75,000.00	Local Coverage Gaps
Mille Lacs County			
	BDA in Law Enforcement Center	\$ 24,369.87	Local Coverage Gaps
	ASR Site Princeton	\$ 600,000.00	Local Coverage Gaps
Morrison County			
	Local Infrastructure - ARMER Microwave	\$ 75,000.00	Local Infrastructure
	Emergency Responder Paging System	\$ 375,000.00	Emergency Responder Paging System
	Radio Coverage BDA - St. Gabriel's Hospital	\$ 50,000.00	Local Coverage Gaps
	Radio Coverage BDA - Pierz-Healy High School	\$ 50,000.00	Local Coverage Gaps
	Radio Coverage BDA - LEC/Jail	\$ 50,000.00	Local Coverage Gaps
Otter Tail County			
	Local Infrastructure - ARMER Microwave Fergus Falls	\$ 69,000.00	Local Infrastructure
	Local Infrastructure - ARMER Microwave Henning	\$ 62,000.00	Local Infrastructure
	Subscriber Equipment	\$ 4,500,000.00	Subscriber Equipment
Pope County			
	Local Infrastructure - ARMER Microwave	\$ 30,000.00	Local Infrastructure
	Subscriber Equipment	\$ 1,298,000.00	Subscriber Equipment
Stearns County			
	Siren Controller System Upgrade	\$ 145,000.00	Local Infrastructure
	Siren Controller System Alerting Software	\$ 6,800.00	Public Safety Answering Point (PSAP) Equipment
	Radio Coverage BDA - LEC/Jail	\$ 20,000.00	Local Coverage Gaps
	Emergency Responder Paging System Siren Activation	\$ 100,000.00	Local Coverage Gaps
	Albany School BDA	\$ 45,244.22	Local Coverage Gaps
Stevens County			
	Subscriber Equipment	\$ 938,051.24	Subscriber Equipment
	Emergency Responder Paging System - Pagers	\$ 38,320.00	Emergency Responder Paging System
	PSAP Control Stations	\$ 20,000.00	Public Safety Answering Point (PSAP) Equipment
Swift County			
	Subscriber Equipment	\$ 1,813,500.00	Subscriber Equipment
	Local Infrastructure - ARMER Microwave	\$ 240,000.00	Local Infrastructure
	Radio Coverage BDA - KMS Elementary School	\$ 40,000.00	Local Coverage Gaps
	Radio Coverage BDA - KMS High School	\$ 40,000.00	Local Coverage Gaps
	Radio Coverage BDA - LEC/Jail	\$ 30,000.00	Local Coverage Gaps
	Emergency Responder Paging System	\$ 250,000.00	Emergency Responder Paging System

Todd County			
	Subscriber Equipment	\$ 718,633.24	Subscriber Equipment
	Local Infrastructure - Microwave	\$ 70,000.00	local Infrastructure
	Radio Coverage ASR Site Clarissa	\$ 450,000.00	Local Coverage Gaps
	Radio Coverage ASR Site Eagle Bend	\$ 450,000.00	Local Coverage Gaps
	Radio Coverage Simulcast Controllers	\$ 201,000.00	Local Coverage Gaps
	Public Safety Answering PSAP Equipment - Console	\$ 137,000.00	Public Safety Answering Point (PSAP) Equipment
	Emergency Responder Paging System	\$ 186,110.00	Emergency Responder Paging System
Traverse County			
	Subscriber Equipment	\$ 405,166.00	Subscriber Equipment
	Local Infrastructure - Siren Controller	\$ 183,050.00	local Infrastructure
	Public Safety Answering PSAP Equipment - Console	\$ 242,000.00	Public Safety Answering Point (PSAP) Equipment
	Emergency Responder Paging System	\$ 86,875.00	Emergency Responder Paging System
Wadena County			
	Subscriber Equipment	\$ 450,000.00	Subscriber Equipment
	Radio Coverage - BDA Law Enforcement Center	\$ 25,000.00	Local Coverage Gaps
	Radio Coverage - BDA Wadena School	\$ 25,000.00	Local Coverage Gaps
	Radio Coverage - BDA Sebeka School	\$ 25,000.00	Local Coverage Gaps
	Radio Coverage - BDA Verndale School	\$ 25,000.00	Local Coverage Gaps
	Radio Coverage - BDA Menahga School	\$ 25,000.00	Local Coverage Gaps
	Public Safety Answering PSAP Equipment - Console	\$ 150,000.00	Public Safety Answering Point (PSAP) Equipment
	Advanced Encryption Standard AES Encryption LE Radios	\$ 125,000.00	Advanced Encryption Standard AES Encryption
Wilkin County			
	Subscriber Equipment	\$ 349,400.00	Subscriber Equipment
Wright County			
	Radio Coverage - BDA in Law Enforcement Center	\$ 33,799.75	Local Coverage Gaps
	Public Safety Answering PSAP Equipment - Console	\$ 440,000.00	Public Safety Answering Point (PSAP) Equipment
	Subtotal	\$ 29,492,871.80	
	TOTALS	\$ 29,492,871.80	