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## Emergency Communication Networks

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February 6, 2015

To: Nine-County Metro Area GIS Managers  
Metropolitan Emergency Services Board PSAP Managers

From: Dana Wahlberg, dana.wahlberg@state.mn.us  
9-1-1 Program Manager, State of Minnesota DPS/ECN

*Dana Wahlberg*

RE: **GIS Role in Next Generation 9-1-1**

The Minnesota Department of Public Safety, Emergency Communication Networks (DPS/ECN) division is responsible for oversight of the 9-1-1 system in the State of Minnesota. This oversight is done in partnership with Minnesota counties that have the responsibility to operate and maintain the 9-1-1 system in their respective counties per MN State Statute §403.025 Subdivision 1. As 9-1-1 Program Manager for the State of Minnesota, I am writing to you to convey some important changes that will affect the 9-1-1 systems you operate and maintain in your counties.

In recent years, 9-1-1 network components throughout the state have been upgraded to an Emergency Services IP Network (ESInet) to prepare for the industry's transition from Enhanced 9-1-1 (E9-1-1) to Next Generation 9-1-1 (NG9-1-1). The next step in the transition is the development and deployment of statewide geospatial datasets to support NG9-1-1.

Today, your county and PSAPs, in partnership with their cities and emergency agencies, are responsible to maintain the address, emergency response, and PSAP boundary data needed for the E9-1-1 system. This role of maintaining the data essential to operating the 9-1-1 system in your county will continue as the system changes, but will be accomplished through geospatial datasets. Geographic Information Systems (GIS), until now, may have served a supporting role in PSAPs, being used as part of a Computer Aided Dispatch (CAD) system or a mapping system, for example. With NG9-1-1, however, GIS will become the primary data set for call routing, location validation, and emergency responder identification for all types of requests for emergency assistance.

To assure that Minnesota counties remain prepared to meet their legislative requirements, it is essential to begin the development of a statewide geospatial data repository to support NG9-1-1 use in Minnesota with the same level of accuracy, timeliness, and integrity as is done today using

the PSAP-maintained Master Street Address Guide (MSAG) and Emergency Service Zones/Numbers (ESZs/ESNs).

In general terms, the NG9-1-1 geospatial data requirements for your county's NG9-1-1 call routing and location validation will include:

- 1) Road centerline (*mandatory*)
- 2) Address points (*highly recommended*)
- 3) PSAP boundary polygon(s) (*mandatory*)
- 4) Emergency response (law enforcement, fire, EMS) boundary polygon(s) (*mandatory*)
- 5) Authoritative boundary polygon(s) (*mandatory*) (Defines the GIS data authority for a given area)
- 6) Validation of the above datasets with the legacy E9-1-1 data (*mandatory*)
- 7) Integration of your county's data into a seamless statewide dataset, initially and on an ongoing basis (*mandatory*)
- 8) Adherence to common NG9-1-1 data model schemas (*mandatory*) (NG9-1-1 allows seamless interoperability between PSAPs and emergency responders across the region, the state, and eventually the entire country. To allow this level of interoperability will require the adherence to common data model schemas.)
- 9) Although timeframes have not been completely finalized, it is currently anticipated that your county's geospatial data will need to be ready for NG9-1-1 deployment in 2017.

Further details of the State of Minnesota's geospatial data requirements for NG9-1-1 will be shared in the coming months. As DPS/ECN and the Minnesota Geospatial Information Office (MnGeo) develop the statewide plan for geospatial data to support NG9-1-1, we will coordinate our planning with the Metropolitan Emergency Services Board (MESB) and the metro-region efforts already underway to prepare shared-use geospatial datasets benefiting 9-1-1, as well as other county and address validation uses. In addition, you will be receiving an announcement of the Project Manager recently assigned to this statewide effort by DPS/ECN and MnGeo.

On a regional level, the MESB has anticipated this initiative and has already begun preliminary efforts with the nine metropolitan counties through the leadership of Gordon Chinander, MESB GIS Manager. Gordy and the MESB GIS support team have been assisting many of the metro area PSAPs and counties in validating and synchronizing data. He also has been participating with the county GIS managers in the planning for various shared-use geospatial datasets. Because of the metro counties' GIS leadership and experience with this effort, the DPS and MnGeo will look to you for key input in the development of the statewide plan.

DPS/ECN has notified your County Administrators of the importance of GIS in the future of 9-1-1 in the State of Minnesota. We also request your leadership, in partnership with that of your PSAP Manager(s), as your county develops its plan to support geospatial data for NG9-1-1. We look forward to the same level of local government commitment and support that, in the past, has sustained Minnesota as one of the best statewide 9-1-1 programs in the nation.