STATE 9-1-1 COORDINATION BOARD

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June 6ᵗʰ, 2024

The South Dakota 911 Coordination Board has approved an incentive/funding plan to facilitate GIS data cleanup and regular data maintenance submissions. Data accuracy is key for 911 call routing and emergency response. Please see "Attachment A" on why GIS data is important to Next Generation 911 (NG911).

GIS data maintenance for NG911 requires additional work which increases costs to the counties. Because each county can handle their GIS data maintenance differently, we've initiated a program that will help to fund the GIS data maintenance expenditures made in support of NG 911.

There are specific benchmarks which must be met to be eligible to receive the one-time data cleanup and ongoing maintenance funds. Those criteria are outlined in "Attachment B."

Several counties utilize planning districts for GIS services (District III in Yankton and First District in Watertown). The 911 Coordination Board has established contracts with these Planning Districts. If your county utilizes those entities for GIS Services, the 911 Coordination Board will pay them directly for NG911 GIS Services on your behalf. For counties who have their own GIS personnel or contract with third party vendors, you may want to keep in close communication with your GIS data maintenance providers to ensure they are meeting the data submission requirements. If those requirements are not met, the board cannot reimburse for the cost of the work.

Payments for GIS cleanup or maintenance should be recorded as "State Grants" within the fund that contains the PSAP operational budget expenditures and reported as such in the 911 Annual Financial report that is due to the State 911 Office.

Any questions can be directed to the State 911 Coordinator, Jason Husby, at 605-773-3264 or Jason.husby@state.sd.us

Sincerely,

Michelle DeNeui

Michelle DeNeui – 911 Coordination Board Chairperson

Attachments: Attachment A; Why GIS data is crucial for NG911. Attachment B; GIS Funding Standards.

Attachment A: Why GIS (Geographic Information System) data is crucial for Next Generation 911 (NG911)

Improved Location Accuracy: GIS data allows for precise location information, which is essential for accurately locating callers, especially from mobile phones. This improves response times and the ability to dispatch the nearest available emergency services.

Overall, GIS data enhances the capabilities of NG911 systems, leading to faster, more accurate, and more effective emergency response. Some specific examples are below:

1. **Enhanced Routing**: NG911 leverages GIS data to efficiently route emergency calls to the appropriate Public Safety Answering Point (PSAP) based on the caller's location. This ensures that calls are directed to the right jurisdiction without delays.
2. **Data Integration**: GIS enables the integration of various data sources, such as maps, floor plans, and hazard locations, providing a comprehensive view of the emergency scene. This assists first responders in planning and executing their operations more effectively.
3. **Resource Management**: By using GIS data, emergency services can manage and deploy resources more efficiently. For example, it helps in tracking the location of emergency vehicles and ensuring optimal allocation based on real-time needs.
4. **Enhanced Situational Awareness**: GIS provides detailed spatial information that enhances situational awareness for dispatchers and first responders. They can visualize the incident location, surrounding infrastructure, and potential obstacles, leading to better-informed decision-making.
5. **Public Safety and Planning**: GIS data supports long-term planning and analysis for public safety improvements. It helps identify high-risk areas, plan resource distribution, and develop strategies to enhance overall community safety.
6. **Interoperability**: NG911 systems are designed to be interoperable with various communication technologies. GIS data plays a key role in ensuring seamless integration and communication between different agencies and jurisdictions.
7. **Text and Multimedia Integration**: NG911 allows for the receipt of text messages, photos, and videos from the public. GIS data helps in correlating this information with specific locations, providing a richer context for emergency responders.
8. **Disaster Management**: In large-scale emergencies or natural disasters, GIS data is invaluable for coordinating response efforts, mapping affected areas, and managing evacuation routes and shelters.

Attachment B – GIS Funding Standards – 2024 –

Data Submission Requirements

For CY24, data accuracy against two categories will be performed to determine qualification for funding: NG911 GIS Data Accuracy and ALI Standardization. Data submissions must also be critical error free to receive funding.

NG911 GIS Data Accuracy
Definition: Submission of all required NG911 GIS Data layers including Road Centerlines, Site/Structure Address Points*, Emergency Service Boundaries (Fire, LE, EMS), Provisioning (Authoritative) Boundary, ALI and MSAG** that meets the requirements of the NENA NGGIS Standard.

*where available
**provisioning boundary polygons must be provided by GeoComm; all local data must be realigned to provisioning boundary polygon provided by GeoComm.
**MSAG only required for PSAPs that have not transitioned to TDMS/i3 geospatial call routing

Criteria: Overall GIS accuracy at or above 98% and submission of all required data layers.

ALI Standardization

Definition: The process of standardizing the road names and their elements in the ALI database prior transitioning to NG911 call routing where the GIS road centerline is used to create a GIS based MSAG for call routing through TDMS.

Additional Information: It is typical for an ALI and MSAG to contain short forms of road names and their elements that do not meet the NG911 standards (e.g. AV – instead of AVE, 1 ST – instead of 1ST ST) each PSAP should focus on standardizing their ALI and MSAG to contain the official street names instead of the short formats. This will require a mass update of the ALI and MSAG through Intrado to ensure no wireline 911 calls are alienated and unable to be routed to the appropriate PSAP.

Criteria: ALI Synchronization to GIS Road Centerline accuracy rate of 98% or above.

Critical Errors

Definition: Critical errors in the GIS data will prevent GIS datasets from being provisioned to the statewide geodatabase for NG9-1-1 call routing and to TDMS.

Additional Information: All errors identified as critical are identified as such in the GIS Data Summary Report under the Analytics tab within GIS Data Hub each time the GIS data undergoes QC. The following are critical errors:

- Acceptable Values in all data layers [*formerly identified as: Value Outside Domain (mandatory fields)]*
- Address Range Overlaps
- Duplicate Values [*formerly identified as: Site/Structure Address Point Duplicates*]
- Empty Geometry in all data layers
- Features Outside of Polygon (Road Centerlines and Site/Structure Address Points [*formerly known as: Roads not covered by Provisioning Boundary and Site/Structure Address Points not covered by Provisioning Boundary*]
- Road Centerline features broken a Polygon (PSAP and Provisioning Boundary)
- Globally Unique ID in all data layers [*formerly identified as Duplicate Unique IDs*]
- Multipart Geometry (RCL) [*formerly known as Multi-part Geometry*]
- Null Value in Field in all mandatory fields [*formerly known as No Value (mandatory fields)]*
- Polygon Compare (Overhangs) [*formerly known as: Boundary must cover Provisioning Boundary*]
- Polygon overlap check [*formerly known as: Polygon overlaps*]

Criteria: Zero Critical Errors

One-Time Cleanup

In acknowledgement of the work required to get the GIS data to the level required, funding will be provided once for a one-time cleanup of the data to get the county's data into the NENA NG9-1-1 GIS data standard and accuracy to a minimum of 98% for both overall GIS accuracy with submission of all required data layers and ALI synchronization to GIS Road Centerline.

Data must also be critical error free as noted above to meet the benchmark for the one-time cleanup funding. Payments will be made upon verification of the benchmarks as indicated in the chart below:

- All required NG9-1-1 GIS Data Layer **must** be submitted
- All NG9-1-1 GIS Data Layers **must** contain all fields required or conditional within the NENA NG9-1-1 GIS data model
- The ALI to Road Centerline synchronization **must** be 98% or higher
- The GIS data **must** be critical error free and be 98% or higher

Quarterly Uploads

Definition: South Dakota NG 911 GIS data is now a critical component of the South Dakota 911 System. Updated GIS information is imperative for correct call routing. To incentivize providing updated GIS information, funding dollars will be paid at the beginning of the quarter for the previous quarter upon validation the criteria have been met.

Criteria: NG911 GIS Data meeting all the above benchmarks, uploaded quarterly.

Data uploads meeting all criteria will be reimbursed quarterly during the year. A minimum of 4 data submissions, once each quarter will result in $300 per quarter to be awarded for all criteria being met. If all criteria are met every quarter, 1st District will receive $1,200 for the year for the counties listed below.

Payments at the beginning of the following quarter are based on the criteria being met. If the benchmarks during a particular quarter are not met, there will not be any compensation for that quarter, however you are still eligible the following quarter if the benchmarks are met for that quarter.

For calendar year 2024, data cleanup will be the primary focus and source of the funding and corresponding payments. Q2 (April 1, 2024) will be eligible for data maintenance payments.

Counties should review the most recent QA/QC report which will give counties an idea of where they currently stand. The updated QA/QC report will be provided monthly. *(If your county's row contains an "N/A" this indicates that GeoComm has not received data sets to run for QA/QC or ALI/MSAG synchronization.)*

Please ensure this information is reviewed among the county staff, GIS Data Provider and PSAP Manager so all parties understand the importance of the requirements to receive funding. GeoComm is available to assist each county with guidance on meeting the benchmarks.