



PURPOSE:

It is the policy of the Office of Emergency Management (OEM) State Enhanced 9-1-1 Program (E9-1-1) to provide the resources from the State 9-1-1 Excise Tax to fund Master Street Address Guide (MSAG) coordination and update services and develop, maintain, and update Geographic Information Systems (GIS) mapping data for all of the Public Safety Answering Points (PSAPs) in the State of Oregon. As the need for accurate mapping data grows, the E9-1-1 Program will work with the PSAPs to enable them to increase the number of data layers available for the mapping system.

The purpose of this policy is to provide a list of acceptable mapping data layers that may be included under the current funding mechanism for GIS and MSAG data development and maintenance.

This policy is in effect for the 2011-2013 biennium and will expire on June 30, 2013. This policy will be reviewed biennially.

BACKGROUND:

The State E9-1-1 Program was tasked with providing mapping into every PSAP in the state. In addition to the mapping software and hardware the E9-1-1 Program wanted to make sure every PSAP had at least three GIS mapping base layers. These base layers were centerline with address ranges, city boundaries, and Emergency Service Zones. Once these base layers were developed and installed in all PSAPs, the E9-1-1 Program was aware of the need to continue to move forward and grow the mapping program. This GIS and MSAG Data Development and Maintenance Funding Policy is designed to provide some financial support for additional development and maintenance of mapping data. The initial policy was adopted in January of 2011 and terminated on June 30, 2011.

CONTEXT:

Section 1 Funding by the State E9-1-1 Excise Tax:

The data layers that will be included in the GIS and MSAG Data Development and Maintenance Funding Policy must be from the approved list stated in Section 2 Each Oregon PSAP will be able to use their discretion in order to choose which data layer(s) to fund under this policy that best meet their needs for an accurate and useful mapping system for 9-1-1 purposes.

These layers will be funded per county on an average of \$6000 per month, not to exceed \$18,000 per quarter. The not to exceed amount per quarter allows for flexibility in GIS and MSAG development and maintenance costs that may fluctuate slightly per month within the quarter.

NOTE: The not to exceed amount of \$18,000 per county per quarter is not automatically distributed to counties. It is GIS and MSAG project/work based and is not a guaranteed amount of funding. If a PSAP or county submits for reimbursement, the funding is allotted based on the expenses incurred for work completed. The work completed must merit the total amount being spent.

This funding is subject to budgetary limitations.

Requests for reimbursement for GIS and MSAG development and maintenance will be submitted to OEM E9-1-1 Program on a monthly basis for the work completed during the prior month. Any exception must receive preapproval from the E9-1-1 Program.

Under special circumstances, and with prior approval, additional funds may be available for special projects. (See Approval Process Section 2 for additional information.)

Section 2 GIS and MSAG Data Eligible for Reimbursement:

This policy will provide a list to all PSAPs in the State of Oregon of acceptable Master Street Address Guide (MSAG) coordination and update services and Geographic Information Systems (GIS) mapping data layers that are eligible to receive funding for development and maintenance. This funding comes from the Office of Emergency Management (OEM) State Enhanced 9-1-1 Program (E9-1-1) 9-1-1 Excise tax. PSAPs seeking to receive funding for the listed data layers in this section shall notify the E9-1-1 Program in writing and identify which layers will be developed and/or maintained under this policy. These data layers will be eligible for reimbursement on a not to exceed basis. As the need for accurate location information and mapping data grows, the E9-1-1 Program will work with Oregon PSAPs to enable them to increase the number of data layers available for use in the mapping system.

2.1 MSAG Coordination and Update Services:

In January 1, 2000 Oregon deployed border to border Enhanced 9-1-1 (E9-1-1). E9-1-1 delivered Automatic Location Identification (ALI) and Automatic Number Identification (ANI) to all PSAPs with the delivery of a 9-1-1 call. The delivery of ALI and ANI created the need for an accurate, locally maintained MSAG. The MSAG is a data base of street names and house number ranges within their associated communities defining Emergency Service Zones (ESZs) and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls, per the National Emergency Number Association (NENA) definition. The ESZs and ESNs identify which police, fire, and emergency medical service respond in a given area.

Ongoing MSAG coordination and update services for each county in the State of Oregon are mandatory. This information layer must be maintained before any additional GIS data layers are developed. The MSAG is used by the GIS data developer to quality check and verify the mapped street centerline data and address information. The time spent on maintaining the MSAG is eligible for reimbursement under the GIS and MSAG Data Development and Maintenance Funding Policy.

2.2 GIS Data Layers Eligible for Reimbursement:

The goal of the E9-1-1 Program is to provide funding resources to develop, maintain, and update Geographic Information Systems (GIS) mapping data layers for all Public Safety Answering Points (PSAP) in the state of Oregon. The GIS data layers eligible for reimbursement are:

- 1) Street centerline including address ranges;***
- 2) City and/or Community boundaries;***
- 3) Emergency Service Zones (ESZ) represented by an Emergency Service Number (ESN). This ESZ/ESN defines the Police, Fire, and Emergency Medical Services that respond within a given geographical area.
- 4) Address Points (These points may be represented by x/y coordinates, or be placed on the structure, driveway, or centroid of the tax parcel.);
- 5) Additional Documents linked to an address to provide detailed information about a specific location on a map (word document, office floor plan, blueprints, schematics);
- 6) Common Places/Landmarks including;
 - a. Schools;
 - b. Hospitals;
 - c. Fire Stations;
 - d. Police Stations;
 - e. Critical Structures and Infrastructure (Gov't buildings, Utilities, EOC, etc. to expand on the Department of Homeland Security definition);
 - f. Public Places (Bars, Restaurants, Lodging, Churches, etc.);
- 7) Fire Hydrants;
- 8) Public Transportation.

The data layers denoted by *** are mandatory and must be in maintenance mode prior to development or maintenance of any additional GIS data layers.

Time spent on configuring and manipulating the GIS data layers for installation into the mapping platform must fall within the not to exceed amount.

2.3 Special project as approved by the E9-1-1 Program:

Additional GIS data layer(s) that would benefit the PSAP in locating an emergency but that is/are not denoted in GIS Data Layers Eligible for Reimbursement 1-8 above would qualify as a special project.

In order to receive funding from the E9-1-1 Program for special projects of additional GIS data layers, prior approval must be received from the E9-1-1 Program. (See Appendix A) If in a Multi PSAP County the special project must benefit all PSAPs in the county unless special approval is given. (See Multi PSAP Counties section below.)

When a proposal is received, the GIS and MSAG Funding Policy Subcommittee will convene to review the proposal.

2.4 Mileage reimbursement as approved by the E9-1-1 Program:

Mileage accrued during developing and maintaining GIS Data Layers and/or performing MSAG coordination and update services is eligible for receiving reimbursement from the E9-1-1 Program based on the current Oregon Accounting Manual, Statewide Travel Policy. This mileage must be tracked on a beginning and ending time sheet while directly performing GIS and MSAG work for a PSAP. In order to receive reimbursement for mileage it must be preapproved by the E9-1-1 Program.

2.5 GIS Projects of Statewide or Regional Significance

Funds not expended through the E9-1-1 Program GIS and MSAG Data Development and Maintenance Funding Policy will become available for GIS Projects of Statewide or Regional Significance at the discretion of the State GIS and MSAG Funding Policy Subcommittee and OEM. OEM will report quarterly GIS/MSAG account balance from the preceding quarter that will be available for these projects.

Priority will be given to projects which develop and maintain data layers or establish GIS data design models and standards at the state or regional level. The intent is the efficient use of resources in order to promote the development and maintenance of common data sets of statewide or regional significance. When possible E9-1-1 program funds will be used to cooperate and leverage projects with other agencies.

Prior approval must be requested using the GIS/MSAG Project Proposal and Approval Form. (See Appendix A) and quarterly reports must be submitted of work performed. When a proposal is received the GIS and MSAG Funding Policy Subcommittee will convene to review the proposal and provide guidance to OEM staff.

With the advent of Next Generation 9-1-1 (NG9-1-1) technologies, the need for a robust mapping system and accurate mapping data in the PSAPs will play a critical part in the accurate routing of 9-1-1 calls. Development of new data layers and maintenance of all existing data layers must continue to increase in order to enhance the current digital maps in the PSAPs.

Section 3. Inclusion of Additional Map Data Layers:

Additional publicly available data layers may exist from Federal, State, and Local data providers. This includes mapping data layers that may have been previously developed by county and local GIS specialists.

The development and maintenance of these data layers will not be funded under this policy. However, the time for configuration of these layers for inclusion in the mapping software will be funded under this Policy.



This Policy allows for the inclusion of any additional mapping data layers that are already developed and publicly available. These layers must be requested by the PSAP director for use in the PSAP mapping software. Examples include, but are not limited to: BLM roads, forest service roads, township, range, section grids, mileposts.

**APPROVAL
 PROCESS**

Section 1.

Requests for approval for special projects noted in Section 2.3, Special project as approved by the E9-1-1 Program, must be reviewed by the GIS and MSAG Funding Policy Subcommittee which is comprised of PSAP representatives. The Subcommittee will provide guidance and submit the recommendation to OEM for final approval. The Project Approval Form (See Appendix A) must be completed.

Section 2.

If there is additional GIS and MSAG funding available from previous quarters, requests for utilizing additional funding for GIS Projects of Statewide or Regional Significance (See section2; 2.5) special projects must be reviewed and approved. The GIS and MSAG Funding Policy Subcommittee will review the requests and provide guidance to assist OEM staff. The following criteria will be followed:

1. Complete Project Approval Form (See Appendix A)
 - a. Requests will be prioritized with preference given as follows:
 1. statewide applicability
 2. multi-county applicability
 3. multi PSAP applicability (within the same county)
 4. individual PSAP applicability
2. Submit to OEM for review and final approval.

**GIS DATA
 SHARING:**

Geographic Information System (GIS) data layers that are developed, maintained, and receiving funding under this GIS and MSAG Data Development Funding Policy are subject to the OEM data sharing agreement with the PSAPs in Oregon and the State Emergency Coordination Center (ECC).

**MULTI PSAP
 COUNTIES:**

All counties that have more than one primary PSAP are required to have a letter of agreement (LOA), signed by each PSAP in the county, on file with the State Enhanced 9-1-1 Program (E9-1-1). The E9-1-1 Program requires this LOA in order to insure all PSAPs within a single county have access to the same GIS/MSAG data. All county PSAPs will agree on a single point of contact for GIS/MSAG data development, maintenance, and reimbursement requests. (See Appendix B)

This LOA will state the acknowledgement of this single point of contact and the GIS/MSAG data layers funded by the E9-1-1 Program under this policy for the purposes of expanding and enhancing the GIS mapping in the county.



State of Oregon
Office of Emergency Management
Enhanced 9-1-1 Program (E9-1-1)

Geographic Information System (GIS)
& Master Street Address Guide (MSAG)
Data Development and Maintenance
Funding Policy

This LOA must be received by the E9-1-1 Program prior to receiving funding. If GIS/MSAG data development and maintenance under this Policy is not shared with all PSAPs in the county the funding is subject to termination.

This LOA will be reviewed biennially with this Policy. The LOA may be amended if county single point of contact changes, but must remain on file with the E9-1-1 Program.

APPLICABILITY: All Public Safety Answering Points within the State of Oregon.

DEFINITIONS:

- I. **Critical Infrastructure** - The assets, systems, and networks, whether physical or virtual, so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, public health or safety, or any combination thereof.
- II. **Emergency Service Number (ESN)** - An ESN is a three to five digit number representing a unique combination of emergency service agencies (Law Enforcement, Fire, and Emergency Medical Service) designated to serve a specific range of addresses within a particular geographical area, or Emergency Service Zone (ESZ). The ESN facilitates selective routing and selective transfer, if required, to the appropriate PSAP and the dispatching of the proper service agency (ies).
- III. **Emergency Service Zone (ESZ)** - A geographical area that represents a unique combination of emergency service agencies (e.g., Law Enforcement, Fire and Emergency Medical Service) that are within a specified 9-1-1 governing authority's jurisdiction. An ESZ can be represented by an Emergency Service Number (ESN) to identify the ESZ.
- IV. **Geographic Information System (GIS)** - A computer software system that enables one to visualize geographic aspects of a body of data. It contains the ability to translate implicit geographic data (such as a street address) into an explicit map location. It has the ability to query and analyze data in order to receive the results in the form of a map. It also can be used to graphically display coordinates on a map i.e. Latitude/Longitude from a wireless 9-1-1 call.
- V. **Geospatial** - Data accurately references to a precise location on the earth's surface.
- VI. **Master Street Address Guide (MSAG)** - A database of street names and house number ranges within their associated communities defining Emergency Service Zones (ESZs) and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls.
- VII. **Master Street Address Guide (MSAG) Address** - Address recognized by Public Safety for the dispatch of emergency first responders. It is an absolute and unique address in that variants for directions, street spelling, street suffixes, and community names are not allowed. It is preferred that MSAG Addresses be in Civic Address format. The community name associated with this address format is assigned by the Addressing Authority in cooperation with the 9-1-1 Administrator and may or may not be the same as the community name assigned by the USPS. MSAG addresses are used to route 9-1-1 calls and for ALI display. NOTE: MSAG Address data format is not standardized throughout the country. This is generally attributed to legacy system limitations that have been continued as operational practices on the part of 9-1-1 administrative entities. This fact gives rise to the need for two subtending MSAG definitions. (See Standard MSAG and Local Operational MSAG.)