MONTANA LAND INFORMATION GRANT APPLICATION

STATE FISCAL YEAR 2018

CHOUTEAU COUNTY, MT

E-911 & GPS/GIS Project

February 15, 2017

Chouteau County Courthouse

1308 Franklin St

Fort Benton, MT 59442

APPLICATION MLIA GRANT FUNDING

SECTION 1 – APPLICANT, PARTNER, AND PROPOSAL INFORMATION

Primary Applicant 1:	
Name of principle individual:	Commissioner Darren Schuster
Name of agency/entity:	Chouteau County, MT
Street:	1308 Franklin St
City:	Fort Benton
County:	Chouteau
State:	MT
Zip Code:	59442
Contact email address:	dtschus@itstriangle.com
Contact fax address:	
Contact phone:	406-622-3631

Primary Applicant 2:	
Name of contact:	Debra Gessaman
Name of Agency:	Chouteau Co. Disaster and Emergency Services (DES)
Street:	1308 Franklin St
City:	Fort Benton
County:	Chouteau
State:	MT
Zip Code:	59442
Contact email address:	chouteaucountydes@gmail.com
Contact phone:	406-622-3027

Project Partner: *(required for each partner, copy box as needed)*	
Name of contact:	Matt Pearce, ENP
Name of Agency:	Mapping and Planning Specialists, Inc.
Street:	1880 Livingston Ave, Suite 202
City:	West Saint Paul
State:	MN
Zip Code:	55118
Contact email address:	mpearce@mapsrus.net
Contact phone:	651-602-9554

Proposal Information	
Date Submitted:	February 15, 2017
Date Received by State:	
Short Title of Proposal: **Chouteau County, MT – E-911 & GPS/GIS Project**	
Executive Summary: Chouteau County (the County) understands that they will eventually need to migrate their E-911 System to the NG9-1-1 platform. The County is applying for MLIA funding to update the County's existing Enhanced 9-1-1 and GIS data to meet the NENA NG9-1-1 standards, as well as to supplement current data with additional attribution and information.	

List All Past Awarded MLIA Grants:

SECTION 2 – RELEVANCE

Land Plan - Section 1. Land Records – 1.a. Next Generation 9-1-1 Data Standardization

The purpose of the MLIA program is to develop a standardized, sustainable method to collect, maintain, and disseminate information in digital formats about the natural and artificial land characteristics of Montana. Chouteau County has initially met that purpose through the implementation of their Enhanced 9-1-1 (E-911) Telephone System, which was developed between 1998 and 2001 and resulted in a healthy GIS program. To date, approximately 3,500 structures and 2,650 miles of road have been mapped and addressed using the standardized methods of National Emergency Numbering Association (NENA) data guidelines and US Postal Service (USPS) addressing standards. The County has sustained that initial project effort by supporting an ongoing GIS data maintenance program administered through the County's Disaster and Emergency Services (DES) Office to map, address and integrate new structures and roads. The need for accurate and up-to-date digital data to support efficient emergency response and disaster preparedness, as well as disaster mitigation efforts, is best supported through active and robust GIS efforts.

The MLIA's FY 2018 Land Plan Priorities under Section "1. Land Records" and Section "1.a. Next Generation 9-1-1 Data Standardization" indicate that Next Generation 9-1-1 (NG9-1-1), a more detailed approach to routing of calls to 9-1-1 based on geographic location that relies heavily on accurate and standardized GIS data, is an imminent concern and one that is supported by the MLIA objectives. To facilitate that eventual migration of their current E-911 System to the NG9-1-1 platform, the County will need up-to-date structure point and road centerline attribution and emergency responder jurisdictional boundaries that meet the NENA NG9-1-1 standard models. The County is applying for MLIA funding to update the County's existing Enhanced 9-1-1's GIS data to meet the NENA NG9-1-1 standards, as well as to supplement the current data with additional attribution and information.

The development of improved structure point and road centerlines data from the proposed project will be coordinated with the appropriate MSDI theme stewards – and the resulting data will be shared with them as well. These initiatives will ultimately improve the County's portion of the statewide MSDI datasets for roads and structure points.

SECTION 3 – PUBLIC BENEFIT

Chouteau County is applying for MLIA funding to supplement, upgrade and update the County's existing Enhanced 9-1-1 and GIS data to meet the NENA NG9-1-1 standards. Since most of the GPS/GIS data was collected over 15 years ago, the County is concerned that without a concerted effort to review and update their data now, the value of their GIS will keep diminishing as it ages.

The County assigns addresses for new construction – if they become aware of it. Residents needing utility or postal services are supposed to contact the County, but not every new structure is identified this way, as the County does not have a residential building permit program. Some new structures are found via State electrical permitting and phone service orders (adds, deletes and changes to landlines). The County maps the new construction it identifies through these methods using GPS field collection 2-3 times annually. Since 2010, this methodology has averaged only 15 new structures per year. Change or development is often "stumbled into" when conducting fieldwork, but certainly every road has not been driven to identify changes in structures. Annual E-911 audits are conducted by comparing phone record addresses to the GIS to ensure accuracy. The number of landlines, however, are dwindling every year, which lessens the ability to keep structure point data up-to-date. As local wireless coverage and wireless devices continually improve, residents are increasingly switching solely to wireless (and dropping their landlines). The number of wireless 9-1-1 calls is increasing dramatically, but the County does not receive any wireless account info. As a result, the GIS data attribution related to phone numbers is aging quickly without adequate means of maintenance and updating.

To overcome the above shortfalls in capturing and maintaining up-to-date structure point data and update their overall E-911 data, the County proposes to implement a multi-pronged approach to:

A) transition their current E-911 data (road centerlines, structure points and emergency service jurisdictions) to the NENA NG9-1-1 model with the support of their E-911 consultant (MaPS, Inc.) and coordination with the appropriate MSDI theme stewards;
B) distribute the GIS data to benefit more users, both private and public, by setting up an ArcGIS Online account and publishing digital maps/data, which will be accessible via web links from the County's website;
C) collect new information by conducting standardized and consistent fieldwork;
D) integrate the field data into the County's Public Alert Notification System (PANS), resulting in enhanced means to communicate with the local public in emergency situations;
E) and ultimately share the final structures points and road centerlines data with the State.

The above initiatives to improve the accuracy of land information will benefit the MSDI priority for Land Records, 1.a. Next Generation 9-1- Data Standardization.

At present, the regular users of the County's digital GIS data are dispatch and DES. The County recently purchased five (5) mobile GPS/GIS tablet computers ($3,665) to distribute among the local emergency responders to provide GIS data in the field, as well as improve navigation and response efforts. Improving the GIS data loaded to these mobile devices will

assist the users to accurately and efficiently locate and navigate to emergencies, thereby benefitting all of the residents in the County, as well as visitors. By also offering the GIS data online in an easy to use format, the County will greatly expand the number of local and remote data users, benefitting potential new users, such as realtors, insurance agents, delivery companies, prospective property buyers, the general public, etc.

SECTION 4 – SCOPE OF WORK

Chouteau County proposes the following **Goals**, objectives and tasks for the successful implementation and completion of this MLIA grant application.

Goal 1: Transition Chouteau County's current E-911 data to the NENA NG9-1-1 model.

Objective 1.1: Establish an NG9-1-1 file geodatabase framework by March 1, 2018.

Task 1.1: The County and their E-911 Consultant, MaPS, Inc., will work with the State theme stewards, NENA standards and Zuercher Technologies to establish the proper field names, field types, field widths, etc. recommended for the NG9-1-1 model, to which the County's existing E-911 data can be morphed into. A new file GDB will be created with appropriate feature classes as a framework to which data can be loaded by March 1, 2018.

Objective 1.2: Transition the existing GIS data into the NG9-1-1 framework by April 1, 2018.

Task 1.2: MaPS, Inc. will then transition the existing GIS data (e.g. structure points, road centerlines and emergency services jurisdictional boundaries, etc.) into the framework by April 1, 2018. New jurisdictional boundaries will be created using the current cadastral data as control (to ensure there are no gaps/slivers) and the road network will be intersected to ensure the roads are split at the zone boundaries. From-Address/To-Address values on intersecting road arcs will need to be adjusted, as well as ESN Left/ESN Right values. New NG9-1-1 fields, e.g. MSAG Community Name Left (MSAGComm_L)/MSAG Community Name Right (MSAGComm_R) and Postal Code Left (PosteCode_L)/Postal Code Right (PostCode_R), will also need to be calculated based on an analysis of existing structure point attribution.

Objective 1.3: Ensure the integrity of the dispatch mapping software functionality by May 1, 2018.

Task 1.3: MaPS, Inc. will then submit the updated data to the County's mapped ALI vendor, Zuercher Technologies, along with an updated map document(s), to ensure that the new data formats are compatible with the dispatch mapping software (e.g. making sure the dispatch map still "pops" to the correct location during landline 9-1-1 calls). Tweaks/testing will be complete before May 1, 2018.

Objective 1.4: Review and reconcile the existing MSAG/ESZ data against the GIS data by June 1, 2018.

Task 1.4: It is not known when NG9-1-1 will become a reality for MT. Because the current Master Street Address Guide (MSAG) records and Emergency Service Zone (ESZ) polygons were not nearly as exacting as NG9-1-1 data requirements, a comprehensive review of the current MSAG will need to be conducted. MSAG records will need to be reconciled against the updated data to ensure accuracy and that the integrity of the present E-911 System remains intact by June 1, 2018.

Goal 2: Open the door to the County's GIS data.

Objective 2.1: Using the DES ArcGIS Desktop license and its corresponding Online license, the County will set-up an ArcGIS Online account to allow for data collection by July 15, 2017. In addition, the ArcGIS Online access will benefit more uses and users, both private and public by February 1, 2018.

Task 2.1: The County intends to establish an ESRI ArcGIS Online account for data management by July 15, 2017. Ultimately, an ArcGIS Online account for the County will allow for the creation and sharing of maps and data to multiple County GIS users (e.g. DES, Sheriff's Office, Commissioners, Roads Dept., etc.). Access, content and privileges/security will be managed by the DES office as the Administrator. In order to publish data online, the DES office will use its ArcGIS Desktop license and its corresponding ArcGIS Online license to set up an ArcGIS Online Account. The DES Office's ArcGIS Desktop license and its online subscription come with 100 credits. Additional credits may need to be purchased as the County's data grows. The single ArcGIS online account will serve as a collector/editor role initially. GIS data can be shared to a broader audience (e.g. the public) by sharing certain data and maps to Everyone. In the future, the County may need additional user licenses to provide viewer access to other users (e.g. other County departments, while not over-sharing to the broader public.

Objective 2.2: Publish digital maps/data accessible via web links from the County's website and configure each feature layer by March 1, 2018.

Task 2.2: MaPS, Inc. will assist the DES office to publish County maps and establish and test linkages from the County's website by February 1, 2018. County staff users will have full access to the data (e.g. via account credentials, with a user name/password), whereas the general public will be able to access a stripped-down version.

Goal 3: Develop a County E-911 & GPS/GIS maintenance mapping program.

Objective 3.1: Purchase an accurate GPS receiver for ongoing data maintenance by July 15, 2017.

Task 3.1: By July 15, 2017, the DES Office will purchase one (1) Trimble R1 (sub-meter) GPS unit (with external antenna; $2,545) so they can perform ongoing maintenance mapping (sub-meter GPS accuracy is needed for mapping of road centerlines to maintain the accuracy/integrity of the existing GIS data, which was mapped using sub-meter DGPS equipment) based on accurate, standardized, and consistent fieldwork.

Objective 3.2: Set-up a Field Data Collection System by July 31, 2017.

Task 3.2: The DES Office has already purchased a mobile computer/tablet (including accessories). MaPS, Inc. will load the Collector for ArcGIS software to the mobile tablet and appropriate data, then test the configuration with the Trimble GPS unit to ensure the desired output is achieved. The resulting Field Data Collection System will be operational by July 31, 2017.

Objective 3.3: Train County staff to map new roads and structures by August 31, 2017.

Task 3.3: Train County staff to verify existing data and map new roads and structures via the Field Data Collection System by August 31, 2017. Emphasis will be on standardized field methods and procedures to ensure consistency and accuracy. Structures will be visited to verify the existing spatial accuracy (and make on-the-fly corrections) and take a digital structure photo and collect up-to-date structure attributes (landline number and/or mobile number, owner name, resident name, structure type, structure description, etc.). New roads and structures will be mapped as they are constructed. To reduce direct costs/expenses, County training (two days, on-site) will be on-the-job, shadowing MaPS, Inc., as part of Task 4.1 below.

Objective 3.4: Train County staff to integrate new data within the geodatabase and update the E-911 System by November 30, 2017.

Task 3.4: Train County staff on ArcGIS processing training to allow the transition of ongoing maintenance mapping by November 30, 2017. County staff need additional training on integrating new GPS field data (e.g. new roads and structures) with the geodatabase and E-911 System. The training will focus on tasks such as:

- splitting existing road arcs (and updating from-address/to-address and other attribution needed by the Zuercher dispatch display software);
- snapping functions (to ensure connectivity/topology integrity);
- atlas feature class updates (e.g. structure and road annotation layer additions/deletions);
- atlas index maintenance (e.g. adding/deleting entries);
- and E-911/MSAG maintenance refresher training (e.g. submitting MSAG change requests for new or changed roads).

Goal 4: GPS/GIS Field Audit

Objective 4.1: Start a GPS/GIS field audit between September and October 2017

Task 4.1: The County will begin a multi-year GPS/GIS field audit using the above Field Data Collection System (Collector software loaded onto a field computer/tablet paired with wireless sub-meter GPS receiver using an external magnetic-mount rooftop antenna placed over the driver's head). The County's approximately 3,400 structure points will be broken down into manageable geographic pieces that can be tackled over the next four (4) years, including rural vs. municipal. Because of the density of structures and most benefit to the greatest residents (and greater odds of calling 9-1-1), collection will likely be started in the communities of Fort Benton, Big Sandy, Geraldine, Highwood, Carter, Loma, Floweree and Square Butte, before the rural areas are tackled. The County's goal is to verify 850 structures each year. MaPS, Inc. has offered to provide seasonal (Sept. and Oct.) field auditing services at a cost of $9 per structure (covers all labor, fuel, vehicle, per diem, etc.). The DES staff will also be afield for 1-2 days a month to conduct at least 15% of the field audit, or 130 structures. MaPS, Inc. will be responsible for the remainder, or 720 structures, at a cost of $6,480.

Based on the above plan, the pre-defined collection area (or town) will be canvassed systematically, road by road, structure by structure. The tablet computer will display all of the current GIS data (e.g. road centerlines, road points, structure points, access points, access-point-to-structure-point connectors, etc.) as well as background imagery (e.g. 2015 NAIP Color Orthos). While afield, the attribution of each structure point will be accessed, its current data reviewed (e.g. owner, resident, structure type and structure description, etc.) and updates will be made on-the-fly, based on available and observed conditions. Digital structure photographs will be taken and attached to structure points.

Objective 4.2: Develop an informative data gathering form letter and print them by August 31, 2017. Deliver them to each structure during the GPS/GIS field audit during September and October 2017.

Task 4.2: The above field audit will yield updated and valuable owner and resident data (particularly cell phone numbers and emails) should the County need to deploy its Public Alert Notification System (PANS). The PANS relies on GIS data supplied by the County, and can be used to effectively communicate with the County residents during disasters (e.g. wildland fires, floods, etc.) or large-scale

emergencies (e.g. school lockdowns, threatening weather events, etc.). To update the current data and gather new contact information to support emergency communications with the residents of the County, a post-it style form letter (e.g. a 4" x 6" sticky note), detailing the project and informing the residents will be left at each structure as it is verified/mapped. Form letter development and printing costs (for approximately 3,400 forms) are estimated at $500. Forms will be printed by August 31, 2017.

The structure's unique Geo_ID# will be written on each form as they are delivered (e.g. attached to the front door of the visited structure or handed to the owner/resident if present). The form letter will include a printed weblink/URL to the County's website/PANS form and contain verbage to encourage use of the PANS form to provide contact info (e.g. owner names, resident names, landline and/or wireless phone numbers, medical conditions present in the household, etc.).

Objective 4.3: Validate data gathered via resident feedback and update the GIS accordingly over the winter months (November 2017 to February 2018).

Task 4.3: As stated in Task 4.2, while afield, a post-it style form letter will be left at/on each structure during verification/mapping, detailing the project and informing the residents of the project's purpose/goals, as well as asking for information validation/feedback (based on each structure's Geo_ID#). Information received – whether from the County's website/PANS form, reported in person, mailed in or called in - will be validated by the DES staff (e.g. compared to the existing structure point attribution, landline phone records, E-911 data, parcel data, etc.) and the structure point data will be updated accordingly. The DES office will track (in the GIS with field attribution) whether information was received. Based on previous E-911 experience (with tear-off, mail-back postcards left as each structure was mapped), only about 60% of the owners/residents will actually respond (approximately 510 responses out of 850 forms each year delivered). Responses received will be validated and processed by DES staff over the winter months (November to February).

Objective 4.4: Process digital structure photographs over the winter months (November 2017 to February 2018).

Task 4.4: Each attached digital structure photograph taken afield will also be stored locally by the County staff and renamed with the structure's unique identification number (Geo_ID#), to allow later hyperlinking in ArcGIS (e.g. so they can also be accessed in dispatch). Digital photo processing will be conducted by County staff over the winter months (November to February).

Goal 5: MSDI Theme Steward Data Submittal

Objective 5.1: Submit an interim set of structure points and road centerlines (results of the data transition to the NG9-1-1 model and Year 1's partial field audit/verification efforts) with the appropriate MSDI theme stewards to promote consistency and accuracy.

Task 5.1: Before June 30, submit a digital dataset to the State including valid metadata for the geodatabase and feature classes developed during the successful completion of this project.

Project Schedule

The project is contingent upon the award of Montana Land Information Act funding. The schedule for this project may be implemented as follows:

Chouteau County E-911 & GPS/GIS Project		JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
Grant Award Notification													
Scope of Work and Contractor Agreements													
1. E-911 data transition to NG9-1-1													
1.1 GDB framework development	MaPS												
1.2 E-911 to NG9-1-1 data transition	MaPS												
1.3 Map doc update, vendor coordination, testing	MaPS												
1.4 MSAG review/reconcile	MaPS												
2. Expanding GIS user base													
2.1 ArcGIS Online acct. set-up	MaPS												
2.2 On-line map development, publishing, testing	MaPS												
3. Ongoing GPS/GIS Maintenance Mapping Program													
3.1 Trimble R1 DGPS Receiver (w/ external antenna)													
3.2 Field Data Collection System set-up/testing	MaPS												
3.3 On-site maintenance mapping training (see Task 4.1)	MaPS												
3.3 On-site maintenance mapping training	DES2												
3.4 On-site GIS Prcs'g & E-911 Maint. Training	MaPS												
- Expenses (airfare, travel tm, mileage, lodging, per diem, etc.)	MaPS												
3.4 On-site GIS Prcs'g & E-911 Maint. Training	DES2												
3.4 On-site GIS Prcs'g & E-911 Maint. Training	DES1												
4. GPS/GIS field audit (Year 1 = 850 structures)													
4.1 Field verify 720 structures x $9/ea. (fee covers all labor/expenses)	MaPS												
4.1 Field verify 130 structures	DES												
4.2 Develop & print form letters	MaPS												
4.3 Process resident feedback received	DES2												
4.3 Process resident feedback received	DES1												
4.4 Process 850 structure point photo attachments as hyperlinks	DES2												
5. MSDI Theme Steward Data Submittal													
5.1 Submit digital data, including metadata	MaPS												

SECTION 5 – PROJECT MANAGEMENT AND ORGANIZATIONAL CAPABILITY

The proposed project will be managed by the Chouteau County Disaster Emergency Service (DES) Coordinator, Debbie Gessaman. Debbie is a native of the County and a proud mother, partnering with her husband to operate their family farm. She started working in 2006 as a Deputy DES Coordinator and Assistant EMS Coordinator. Debbie has helped the County work through Presidential Disaster declarations in 1992 and 1996. During these disasters, she helped write up the Project Worksheets (PW's) for each of the roads and bridges that were damaged from flooding, including gathering all information about the work hours, equipment and supplies (e.g. taking all the timecards of the road crews, going through all the records of supplies they used, equipment that was used and how many hours for each piece of equipment, then reporting all this on the PW's). Debbie worked with the County Commissioners to close these projects and making sure they were done according to Federal Emergency Management Association (FEMA) standards. These disasters included working alongside FEMA and Emergency Relief for Federally Owned Roads (ERFO) organizations. She continues to work with State, Federal and local officials to create a disaster resilient community.

Debbie started out as a first responder and trained and certified as an Emergency Medical Technician – Basic (EMT-B) and has recently certified as an Advanced EMT (AEMT). She is the EMS Coordinator for Chouteau County and an AEMT for Memorial Ambulance Service of Fort Benton. Debbie has experience with grant management and administration for large and small projects and supervisory experience at many different levels. Each year Debbie applies for an Emergency Management Program Grant from the State of Montana. This grant is used to fund various exercises, wages for the County's mapping consultant and DES Coordinator, Developing various EOP (Emergency Operating Plans) for the county and various meetings. As the County EMS Coordinator, she has also successfully applied for and executed grants for a portable suction unit and a new 2001 ambulance (through the State DOT). Debbie is a member of the County 9-1-1 Advisory Board, as well as their Secretary/Treasurer. Regarding overall contractual and grant administration, Debbie will be supported by the 9-1-1 Advisory Board and the County Commissioners.

Kellie Butler, the County's Deputy DES and Mapping/Addressing Coordinator since the Spring of 2015, is also a native of Chouteau County and takes a personal pride and interests in keeping the GIS data current and correct. As the daughter of the previous (and original) GIS mapping coordinator (who was also a former emergency dispatcher), Kellie grew up with Public Safety and through her mother, has a wealth of knowledge about the County and the development of its map data. She is responsible for working with (on the phone and in person) County landowners and residents on the assignment and input of all new structure addresses, including road naming. Kellie maintains the current GIS, including the structure points/address database and the E-911 system (e.g. the Master Street Address Guide or MSAG, hosted by Intrado). Kellie reviews telephone service order activity reports received from the local telephone companies (e.g. service orders for adds, deletes and changes) and works with the County Clerk & Recorder and Dept. of Revenue office to monitor grantor/grantee changes. She has worked extensively with MaPS, Inc. for the past year in improving the current GIS mapping data for the County and spearheaded the effort to pursue and develop this project. Kellie also has 9 years of previous experience as an Office Manager and Bookkeeper which supplied her with an extreme attention to detail and exceptional customer service skills. Kellie attended the College of Great Falls – MSU and graduated with an Associates Degrees in Graphic and Web Design in 2016. She will also be graduating with a Bachelor's of Science in Organizational Communication from MSU – Billings in May 2017.

It is proposed that this project be contracted to Mapping and Planning Specialists, Inc. (MaPS, Inc.) and managed by the County DES Office. MaPS, Inc. has been working for the County as their E-911 Consultant since April 2000 (and Matt Pearce, as part of Baker GeoResearch, for several years prior to that). MaPS, Inc. successfully implemented the County's E-911 System over a decade ago and has completed multiple

contracts with other County and City agencies in Montana and the region and has a reputation for providing quality GPS/GIS services. MaPS, Inc.'s personnel have extensive experience in GPS field data collection, GIS development and E-911 implementation and have worked on over fifty projects in many states across the nation. MaPS, Inc. has successfully completed previous projects of similar scope and have demonstrated a thorough understanding of the required GPS/GIS services. MaPS, Inc has implemented ArcGIS Online solutions for several utility projects in the State. The County believes that MaPS, Inc. has provided a reliable and fair project cost that is a good use of MLIA grant funding.

MaPS, Inc. is managed by Matthew Pearce, it's President and company Founder. Matt is a graduate of the University of Minnesota with a B.S. in Geography with GIS/Cartography emphasis. He has been working in the geographic field for 24 years and is a certified Emergency Numbering Professional (ENP) and a member of the National Emergency Numbering Association (NENA). MaPS, Inc. is currently providing E-911 and GPS/GIS mapping and addressing services for a significant number of MT counties, including Toole, Pondera, Chouteau, Valley, Granite, Mineral and Sanders. MaPS, Inc. specializes in Public Safety Consulting, GPS field data collection and GIS processing, including on-site project coordination and training, and has a hard-earned reputation of providing clients with high quality data and excellent customer service.

SECTION 6 – BUDGET JUSTIFICATION AND BUDGET TABLE

The proposed project's costs for contracted services, equipment, in-kind labor, etc., include the following:

1) E-911 data transition to the NENA NG9-1-1 model (100 hours).

   1.1) MaPS, Inc. NG9-1-1 GDB framework development; 8 hours.

   1.2) MaPS, Inc. E-911 to NG9-1-1 data transition; 36 hours.

   1.3) MaPS, Inc. Map document update, dispatch software vendor coordination, testing; 16 hours.

   1.4) MaPS, Inc. MSAG review/reconcile; 40 hours.

2) Expanding GIS user base; (55 hours).

   2.1) MaPS, Inc. ArcGIS On-line account set-up; 15 hours.

   2.2) MaPS, Inc. On-line map development, map publishing, testing, website linking; 40 hours

3) Ongoing GPS/GIS maintenance mapping program development and training; (40 hours)

   3.1) County DES to purchase a Trimble R1 DGPS receiver (with external magnetic antenna); $2,550.

   3.2) MaPS, Inc. to set-up and test the Field Data Collection system; 8 hours.

   3.3) MaPS, Inc. to provide on-site maintenance mapping training; see 4.1; (16 hours). County DES to receive said training; 16 hours.

   3.4) MaPS, Inc. to provide training; 16 hours/$1,275 expenses. County to receive said training; 20 hours.

4) GPS/GIS Field Audit; (126 hours).

   4.1) MaPS, Inc. to field verify 720 structures x $9/ea.; $6,480. County DES to map 130 structures.

   4.2) MaPS, Inc. to develop and print (approximately 3,400) post-it style form letters; $500.

   4.3) County DES to process resident feedback received; 45 hours.

   4.4) County DES to process structure point photo attachments as hyperlinks; 15 hours.

5) MSDI Theme Steward Data Submittal (15 hours)

   5.1) Submit a digital dataset to the State including valid metadata (15 hours).

COUNTY (IN-KIND) CONTRIBUTIONS

The County expects to provide a considerable in-kind contribution of labor to the project effort, including grant administration from Debbie Gessaman and field data collection and structure point data validation by Kellie Butler.

Debbie Gessaman (DES1) anticipates providing at least 12 hrs. over the course of the project for grant administration, including MaPS, Inc. coordination and State progress reporting, and 4 hrs. for ArcGIS Training. Debbie will also assist with an additional estimated 8 hrs. of validation of the structure point information by taking overflow phone calls and covering for Kellie when she is conducting field data collection. Debbie's

hourly rate (salary and benefits) is $24/hr., so her estimated 20 hrs. of labor contribution to the overall project is **$480**. Supplies/copies are also anticipated at **$50** during the project period.

Kellie Butler (DES2) will be trained on field data collection training (16 hrs.), GIS processing and E-911 maintenance (16 hrs.). Kellie will also provide the bulk of labor for the validation of the structure point information, an estimated 37 hrs. of labor, as well as contributing to the field data collection effort, supplying an estimated 16 hrs. of direct labor (County vehicle and fuel will be supplied). Kellie will also be responsible for processing all of the digital structure photographs (850) taken as during field data collection, an estimated 15 hrs. of labor. Kellie's estimated labor contribution to the project will be at least 100 hrs. At a labor rate of $19/hr., Kellie's labor contribution is **$1,900**.

The detailed tasks are listed below with the hours/costs and the assigned partner for the task.

TASK	ASGN'D	FEE HRS	CO HRS	RATE	COST	
Overall Grant Administration/Coordination	DES1		12	24	288	
General supplies/copies					50	
					338	
1. E-911 data transition to NG9-1-1						
1.1 GDB framework development	MaPS	8		75	600	
1.2 E-911 to NG9-1-1 data transition	MaPS	36		75	2700	
1.3 Map doc update, vendor coordination, testing	MaPS	16		75	1200	
1.4 MSAG review/reconcile	MaPS	40		95	3800	
		100			8300	Subtl.
2. Expanding GIS user base						
2.1 ArcGIS Online acct. set-up	MaPS	15		75	1125	
2.2 On-line map development, publishing, testing	MaPS	40		75	3000	
		55			4125	Subtl.
3. Ongoing GPS/GIS Maintenance Mapping Program						
3.1 Trimble R1 DGPS Receiver (w/ external antenna)					2545	
3.2 Field Data Collection System set-up/testing	MaPS	8		75	600	
3.3 On-site maintenance mapping training (see Task 4.1)	MaPS	--				
3.3 On-site maintenance mapping training	DES2		16	19	304	
3.4 On-site GIS Prcs'g & E-911 Maint. Training	MaPS	16		95	1520	
- Expenses (airfare, travel tm, mileage, lodging, per diem, etc.)	MaPS				1275	
3.4 On-site GIS Prcs'g & E-911 Maint. Training	DES2		16	19	304	
3.4 On-site GIS Prcs'g & E-911 Maint. Training	DES1		4	24	96	
		24	36		6644	Subtl.
4. GPS/GIS field audit (Year 1 = 850 structures)						
4.1 Field verify 720 structures x $9/ea. (fee covers all labor/expense	MaPS	50			6480	
4.1 Field verify 130 structures	DES		16	19	304	
4.2 Develop & print form letters	MaPS				500	
4.3 Process resident feedback received	DES2		37	19	703	
4.3 Process resident feedback received	DES1		8	24	192	
4.4 Process 850 structure point photo attachments as hyperlinks	DES2		15	19	285	
		50	76		8464	Subtl.
5. MSDI Theme Steward Data Submittal						
5.1 Submit digital data, including metadata	MaPS	15		75	1125	
	MaPS Hrs.>	244	24	<DES1 Hrs.	$28,996.00	Total
			100	<DES2 Hrs.		

MLIA GRANT BUDGET SUMMARY

Category	Applicant Summary					Total
	MLIA Share	Applicant Cash	Other Cash	In-kind	Applicant Subtotal	
a. Personnel						
a. 1. Debbie Gessaman				576	576	576
a. 2. Kellie Butler				1,900	1,900	1,900
b. Travel						
c. Equipment	2,545					2,545
d. Supplies	500				50	550
e. Contractual - MaPS, Inc.	23,425					23,425
f. Other						
Total	26,470				2,526	28,996

MLIA GRANT BUI

Category	Project Partner* Summary			
	MaPS, Inc.	Partner 2	Partner 3	**Total**
a. Personnel	15,670			15,670
a. 1. Fringe Benefits				
b. Travel	1,275			1,275
c. Equipment				
d. Supplies				
e. Contractual				
f. Other	6,480			6,480
Total	23,425			23,425

The County will continue to contract with MaPS, Inc. for Technical Support resulting from this project in future E-911 budgeting. Please note that the County intends to apply for and conduct Phases 2-4 in subsequent fiscal years, to field verify an estimated 850 additional structures each year, until the entire County's road network and structure points have been completely verified and updated.

Section 7 – Statements of Support

**In this section, applicants must include statements of support are required for each party listed as a funding partner—see MLIA Grant Compliance – MLIA Grant Partners section for the definition of a funding partner. Do not include other statements of support as they will not be evaluated.*

Chouteau County does not have other funding partners for the proposed project.

SECTION 8 – RENEWABLE GRANT ACCOUNTABILITY

**In this section, applicants awarded a FY2017 MLIA Grant for the same project or purpose, must submit a report on the progress made toward meeting the requirements of that grant: the report must include the status of all tasks or deliverables outlined in the grant.*

This section is not applicable to this Application.

SECTION 8 – Sign the Application

Authorizing Statement

I hereby certify that the information and all statements in this application are true, complete and accurate to the best of my knowledge and that the project or activity complies with all applicable state, local and federal laws and regulations.

I further certify that this project will comply with applicable statutory and regulatory standards.

I further certify that I am (by my signature) authorized to enter into a binding agreement with the Montana State Library to obtain a grant if this application receives approval.

Darren J Schuster

Darren Schuster

Daren J. Schuster

Chouteau County Commissioner

Signature and Title of Authorized Representative(s) of Public Entity Applicant

2/13/17

Date

SECTION 9 – CHECKLIST – SIGNATURES REQUIRED

Initial or mark n/a	Completed Required Task
	Section 1 – Applicant, Partner, and Proposal Information
DH	Primary Applicant Information
N/A	Funding Partner *(if applicable)*
DH	Project Partner *(if applicable)*
DH	Proposal Information
N/A	List All Past Awarded MLIA Grants
DH	**Section 2 – Relevance** *(300 max word limit)*
DH	**Section 3 – Public Benefit**
DH	**Section 4 – Scope of Work Narrative** *(4-page limit)*
DH	**Section 5 – Project Management and Organizational Capability Narrative**
DH	**Section 6 – Budget Justification Narrative and Table**
DH	Budget Justification Narrative
DH	Complete Budget Table
N/A	**Section 7 – Statements of Support** *(if applicable)*
N/A	**Section 8 – Renewable Grant Accountability Narrative** *(if applicable)*