APPLICATION FOR GRANT FUNDING

STEP 1 – Applicant and Partner Information

Primary Applicant (Required):
Name of principle individual:	*Lori Methgen*
Name of agency\entity:	*Sanders County*
Street:	*PO Box 519*
City:	*Thompson Falls*
County:	*Sanders*
State:	*MT*
Zip Code:	*59873*
Contact email address:	*lmethgen@sanderscounty.mt.gov*
Contact fax address:	*406-827-4388*
Contact phone:	*406-827-6920*

Organizational Unit (if applicable)
Department:	*Rural Addressing*
Division:	

Other Project Partners – complete for each partner (copy box as needed):
Name of contact:	*Ken Wall*
Name of Agency:	*Geodata Services, Inc.*
Street:	*P.O. Box 8081*
City:	*Missoula*
County:	*Missoula*
State:	*MT*
Zip Code:	*59807*
Contact email address:	*kwall@geodataservicesinc.com*
Contact phone:	*(406) 203-4684*

Other Project Partners – complete for each partner (copy box as needed):
Name of contact:	*Kate McMahan*
Name of Agency:	*Applied Communications*
Street:	*151 Wedgewood*
City:	*Whitefish*
County:	*Flathead*
State:	*MT*
Zip Code:	*59937*
Contact email address:	*kate@appcom.net*
Contact phone:	*(406) 863-9255*

Date Submitted (Required): 2/14/2014	Date Received by State:

Descriptive Title of Applicant's Project (Required):
Participate in a statewide pilot to help us publish map layers in a web-based platform, deploy new web tools, get training, and build a GIS support network.

STEP 2 – Relevance and Public Benefit

While GIS is increasing in importance, providing core government tools and services, we have unique challenges maintaining a sustainable level of local knowledge for mapping and GIS systems as a small rural government. Our basic contribution to the transportation and structures framework layers in Montana started several years ago and we are in maintenance mode. Sanders County wants to start the process to adapt our local data to the Esri local government data model to standardize to other local governments and adopt best practices and to be able to leverage their templates. We are proposing a project that will allow us to publish and maintain web-based maps, available to everyone. Working on individual pilot programs, several Sanders County departments and agencies will be represented in a collaborative group with other counties. This group will participate in weekly training on web-based GIS tools and provide peer support for those pilot programs.

B2.1 - Regional GIS consortiums that leverage a multi-jurisdictional approach to problem solving and GIS analysis can demonstrate the value of GIS to policy makers.

Pilot programs that will be implemented through this project will be far reaching and benefit county employees, policy makers as well as the citizens of Sanders County. We plan to develop a road maintenance inventory to our existing transportation layer which will benefit road crews, weed control crews and residents alike. It will also give commissioners very precise data when evaluating budgets for road maintenance. Locating and digitally documenting septic systems by our Sanitarian will streamline the current permitting and inspection process for that department. Our weed coordinator wants to expand methods to map infestations and treatments and work with landowners collaboratively. Our economic development agency will use data and GIS tools to retain, grow, and attract businesses. With easy-to-use, modern Web applications and accurate, current data, department heads can give community and business leaders the information they need to make investment decisions.

Our proposal also addresses **B2.2 - Localized GIS solutions that demonstrate the value of GIS in improving the quality of life for Montana citizens and build grass roots support for location based services.**

The resulting maps from the above mentioned pilot programs will benefit the citizens of our county directly as they will be published on line. For those layers such as roads, public infrastructure, community anchor institutions, we will publish editable feature services for specific public comments on these core layers, providing simple crowd sourced input from constituents. Specific public mapping would allow residents and visitors alike to locate recreational opportunities and tourism-related points of interest throughout the county. For the first time, we would be able to provide dynamic maps for citizens to access local data and contribute comments directly to staff and our elected officials and generally assist in improving quality of life.

STEP 3 – Scope of Work Narrative

Goal 1: Increase capacity in rural Montana governments to build and maintain sustainable GIS map layers for multiple staff, public officials, and citizens.

Objective 1 – Implement ArcGIS for Organizations Subscription

Steps:

1. We will purchase a 1 year ArcGIS for Organizations subscription and assign 4 department specific staff as licensed users and 1 mapping staff as a licensed user.
2. Participate in training to configure, set up and establish a base map set and gallery of web maps and web apps
3. With the assistance of Geodata Services, Inc., we will prepare and publish each official map layer in three web formats:. 1) a web application formatted for browsers and mobile devices for the official data for simple public use; 2) a view only web map in standard ArcGIS format; 3) An open editable feature class for public use to provide comments, suggestions and modifications on the map content and data attribution presented as an overlay on the official layer. We anticipate using out of the box ArcGIS functionality, without customization.
4. We will also prepare and publish up to three quality of life starter maps for our area for community mapping.

Objective 2 – Participate in weekly 2 hour training/peer-to-peer discussions to facilitate our pilot programs

Steps:

1. Geodata Services, Inc. and Applied Communications LLC will organize, host, maintain and facilitate weekly two hour Webex Learning Center training and peer-to-peer sessions. These sessions will include formal instructor led training, discussions with the entire group and small group discussions and training.
2. Geodata Services, Inc. will organize, host and maintain a Basecamp wiki site for group collaboration with Blaine County, Lincoln County, Teton County and Upper Swan Fire District.

Goal 2: Use ArcGIS.com web maps and Excel tools to improve maintenance and public visibility of key GIS layers we maintain locally.

Objective 1: Enrich our existing GIS transportation layer by developing a process to add type and level of maintenance to our local roads inventory. We will then publish this enhanced layer using ArcGIS online.

Steps:

1. Look at Esri Local Government Data Model and use their attributes and domains to define type and level of road maintenance
2. Meet with road crew foremen to develop a method of collecting information on road maintenance which originates from a variety of sources.
3. Inventory roads in a pilot area. Publish the resulting road map for the pilot for departmental review as a web map.
4. Make any adjustments to the process necessary to complete the maintenance inventory on all county roads.

Objective 2 – Add documentation of septic systems as new septic fields are built.

Steps:

1. Convert field form used by sanitarian to data attributes and domain classes in geodatabase for use with the Collector app on iPads.
2. Photo document septic systems as-built and site characteristics with geo-enabled photos
3. Create a web map for internal staff use to add septic data fields, site plans and geo-enabled photos
4. Build a "best practices" story map of the photos, site characteristics and solutions with examples drawn from the inventory. This map will be made available to the public.

Objective 3 – Weed mapping pilot to document public and private weed infestations and treatments

Steps:

1. We intend to set up a pilot process that can be implemented over time on all public and many private lands in the county. It is beyond the scope of this process to implement this broadly, but we can set up a robust system, test it and lay the groundwork.
2. Convert the existing field forms used for weed mapping and treatment to a geodatabase model of attribute and domain selections. Build a Data Collector form for use on smartphones or tablets and a companion paper form to be incorporated into fieldpaper.org map books with half page maps and half page notes. We will test both methods, but only plan to implement the paper based fieldpapers.org maps for public use.

3. Upload the county roads layer to OpenStreetMaps, the base map source for fieldpapers.org so there is a more complete road source layer in the map books to use for mapping, along with the standard OpenStreetMap imagery.
4. Develop a common symbology legend and how-to page to facilitate standardized notes on the map.
5. Work with 3 private landowners who volunteer to test the system.
6. Take digital photos of the completed map books and use fieldpapers.org site to geolocate the maps.
7. Digitize the results and export as shapefiles to be imported into the County weed geodatabase.
8. Review the methods with the collaborative groups and make adjustments and corrections.
9. Prepare a revised "How to document" and collate examples into a short document to describe to others how the method works.
10. Prepare a poster display to be used in the Sanders County Fair to demonstrate the methodology.
11. We don't anticipate being able to complete enough coverage mapping in this first year to publish a public weed map, but we anticipate the value of doing so in the future.

Objective 4 – Montana's cadastral data layer is known to be inaccurate up to several hundred feet in some areas. This causes confusion for non-GIS users when viewing the layers overlaid with each other. Our intent is to apply for the MLIA Grant 2016 to assist our county in acquiring better control points which can be incorporated into the GCDB data. In preparation for that project and to assist our non-GIS users now, we will create a map layer which will identify areas of our county where the inaccuracies occur.

Steps:

1. Examine our current data set to inventory those areas that are most inaccurate
2. Create shaded polygons over these areas.
3. Symbolize and label these areas on the published map. This will be an alert over and above the generalized disclaimer to our published mapping.

Project Schedule:

July 1, 2014 – June 31, 2015 – Weekly 2 hour training and discussion sessions via WebEx learning Center (except for Thanksgiving and Christmas weeks)

July, 2014 – Purchase 5 seat license annual subscriptions for Organizational subscription for ArcGIS.com and acquire all hardware.

August, 2014- Set up and configure ArcGIS for Organizations and Esri toolbar for Microsoft Office. Publish our existing transportation and structures layers online. Sanitarian will plan the conversion of septic system documentation to a digital format. Weed Control Department will begin development of the noxious weed mapping project. GIS Tech will identify areas of the cadastral data layer which are most inaccurate, create and publish this new map layer.

September-October, 2014- Quarterly report on 1st quarter training and operational accomplishments and ArcGIS.com usage statistics. Sanitarian and Weed Control will begin in-field trials of their new processes.

Novermber, December, January, 2014- Quarterly report on 2nd quarter training and operational accomplishments and ArcGIS.com usage statistics*.* Add and publish local institutions/points of interest layer using ArcGIS Online. Sanitarian and Weed Control will begin to develop map layers using the data they have collected while afield. GIS Tech/Planner will develop process using Excel to collect road maintenance data.

February, March, 2015- Quarterly report on 3rd^{t} quarter training and operational accomplishments and ArcGIS.com usage statistics*.* Sanitarian and Weed Control will refine the process for collecting data and publish map layers they have created. GIS Tech/Planner will train Road Foremen to use Excel process to collect road maintenance data.

April, May, 2015 – Complete septic, weed mapping and road maintenance pilots.

June, 2015- Quarterly report on 4th quarter training and operational accomplishments and ArcGIS.com usage statistics. Wrap-up group meeting of project partners to gage successes and lessons learned and brain-storm "what's next" scenarios.

January 15, 2014

STEP 4 – Project Management and Organizational Capability Narrative

This project will be carried out by the Sanders County Rural Addressing Department by Lori Methgen, GIS/IT Technician, Kathy Matthew, Planning Director, Jason Badger, Weed Control Coordinator and Shawn Sorenson, County Sanitarian. We plan to work with Geodata Services, Inc. and Applied Communications, LLC on this project. They will provide training, support services and consulting for the project.

Lori Methgen
Lori has worked for Sanders County since 2007 and has served as the GIS/IT Technician since 2010. Lori currently completes all facets of maintenance for the roads and structures layers of the geodatabase which includes field data collection, processing and editing using ArcGIS Desktop. Lori recently coordinated a group project to redesign the county's website. This included training 8 co-workers to use a web content management interface to create and maintain their departments' webpage. The project has been completed successfully.

Kathy Matthew
Kathy has been with Sanders County for 10 years, having received her degree in Geography from Ohio University. As the County Planner she understands the value of a comprehensive GIS mapping program, integrating various departments, creating an information resource that is ever evolving. She sees her position as assisting Lori Methgen in overseeing the implementation of this next level of GIS mapping in Sanders County, identifying practical application and projecting future possibilities to incorporate on line interactive mapping, acting as a liaison between local government and local citizens for the continued formation of Sanders County.

Jason Badger
Jason, the Sanders County Weed District Coordinator, has been with Sanders County since February of 2013. He has worked with wildlife and wildlife habitat as a career and as a volunteer since 1997. He obtained a Bachelor of Science degree in Fisheries and Wildlife Management, with an emphasis on habitat specialization, from Oregon State University. He understands the importance of GIS in mapping noxious weed infestations, and how the data can be used in noxious weed control. Sanders County is participating in multiple eradication/containment projects during the 2014 season and values the contributions this grant can make to the said projects.

Shawn Sorenson
Shawn, Registered Sanitarian, has been with Sanders County since May, 2013. He has worked in the environmental health field for fifteen years and as a healthcare facility planner/director for eight years, the majority of work with a large healthcare organization serving rural Southeast Alaska. Shawn obtained his Master's Degree in Environmental Health and Safety Management from Tulane University.   He has regional-level experience in writing and managing major construction grants as well as remediation

project planning, both of which underscore the value that a comprehensive GIS contributes to community planning and decision-making.

Geodata Services, Inc.

Geodata Services, Inc. specializes in GIS services for landscape, regional and community planning, and demographic and socioeconomic analysis. Geodata Services has been the prime contractor on three successful MLIAC funded projects in the past 3 years. Ken Wall, president, served on the MLIAC council for the last 6 years. For 21 years Geodata has provided training and services in GIS including, spatial analysis, image analysis, database development, collaborative GIS, suitability modeling, and 3D scenario visualizations. Geodata has been an Esri business partner for 14 years, with awards including New Partner of the Year and Foundation Partner of the Year and is also a business partner with Placeways LLC. Geodata staff have more than 60 years of combined experience with GIS. The two primary staff who will provide training, consulting and support will be Ken Wall and Kyle Balke. Ken Wall has 24 years of experience in GIS experience, founder and president of Geodata Services, Inc. since 1993. He served as a senior analyst for GIS projects throughout the US, Canada, and Australia. For the past several years he has specialized in community mapping and planning. Geodata Services has been a business partner with ESRI and was awarded new partner of the year in 2000, and founding partner of the year in 2008. Mr. Wall served as an instructor on more than 50 short courses and training sessions in GIS. Ken Wall has earned certification as an Esri Desktop Associate and Authorized ArcGIS instructor, and is a CompTIA CTT+ Certified technical trainer. Mr Wall is also a certified Gold Level CommunityViz consultant. Kyle Balke has 11 years of applied GIS experience in planning, engineering fields. He has worked as a GIS analyst for firms in Wisconsin and Montana . His professional experience includes GIS data maintenance and editing, project development, CAD and GIS integration, geodatabase design, spatial and statistical analysis, cartography, 3-D modeling, rendering, and digitizing. He has extensive expertise with the full suite of ESRI GIS programs and modules, including ArcMap, Business Analyst, Spatial Analyst.

Applied Communications, LLC

Applied Communications is located in Whitefish, MT and has extensive experience providing consulting services to private and public clients in Montana. AppCom has been involved in the development of 14 different Growth Policies throughout the state. The team has worked for small towns, rural counties, and urban areas. In addition to the Growth Policy, principals of the firm have been involved in all aspects of long range planning from completing countywide parks master plans, planning for recreational trails, housing assessments and drafting development regulations. The firm understands how the Growth Policy should be integrated with these other planning processes and has thorough knowledge of the requirements of the MCA code. Applied Communications has completed 14 Growth Policies throughout Montana and understands what data is necessary to provide a foundation for developing goals and policies as well as provide the basis for future regulation.

STEP 5 – Budget Justification Narrative and Tables

This project is expected to cost $49,114.50, of which Sanders County will contribute $28,237.50 as in-kind expenses. Sanders County will also use $2,100 from fund #2859-County Land Information Act, as well as $3,625 from the Special County/Reservation (SCR) Grant administered by our Weed Control Department. We are requesting $15,152 in MLIA funding for the remaining project expenses.

Personnel: Sanders County Personnel – Estimated 1250 hours at County billing rate of $22.59/hour which includes fringe benefits.

Travel: None

Equipment: one workstation ($2,200) and additional license of ArcGIS Desktop ($1,425) for Weed Control Dept. will be paid for by the Special County/Reservation (SCR) Grant. 3 tablets or other hand held devices ($2,100) will be purchased using fund #2859-County Land Information Act.

Supplies: None

Contractual: one-year subscription to ArcGIS Online ($2500), one-year training/peer-to-peer support through GeoData Services via WebEx Learning Center ($9852), 30 layer Local Government Starter Set ($2800).

Applicant budget summary

Category	MLIA Share	Applicant Share	Fund #2859 Share	SCR Grant Share	Total
a. Personnel		20,140			
a.1 Fringe Benefits		8,097.50			
b. Travel					
c. Equipment			$2,100	$2,200	
d. Supplies (Software)				$1,425	
e. Contractual/Other					
ArcGIS Online Sub	$2,500				
Local Map Layers	$2,800				
Peer-to-peer training	$9,852				
Totals	$15,152	$28,237.50	$2,100	$3,625	$49,114.50

Project Partner budget summary

Category	Geodata Services	Partner 2	Partner 3	Total
a. Personnel				
a.1 Fringe Benefits				
b. Travel				
c. Equipment				
d. Supplies				
e. Contractual				
f. Other	$9,852			
Totals	$9,852			$9,852

STEP 6 – Statements of Support

Statements of support must be included from any party listed as a project partner (see page six for the definition of a project partner). DO NOT include other statements of support as they will not be evaluated.

STEP 7 – Renewable Grant Accountability Narrative

Not applicable.

STEP 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.

_____
Name (print or type)

_____
Title (print or type

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

Date_____