



# Grant Workplan

## Accelerated Implementation Grant 2016

**Grant Title** - Targeting Implementation in the Blue Earth & Le Sueur Watersheds

**Grant ID** - C16-7253

**Organization** - Greater Blue Earth River Basin Alliance

<b>Grant Awarded Amount</b>	<b>\$212,000.00</b>	<b>Grant Execution Date</b>	<b>3/3/2016</b>
<b>Required Match Amount</b>	<b>\$53,000.00</b>	<b>Grant End Date</b>	<b>12/31/2018</b>
<b>Required Match %</b>	<b>25%</b>	<b>Grant Day To Day Contact</b>	<b>Kay Gross</b>

### Budget Summary

	Budgeted	Spent	Balance Remaining
Total Grant Amount	\$212,000.00	\$0.00	\$212,000.00
Total Match Amount	\$55,000.00	\$0.00	\$55,000.00
Total Other Funds	\$0.00	\$0.00	\$0.00
<b>Total</b>	<b>\$267,000.00</b>	<b>\$0.00</b>	<b>\$267,000.00</b>

*\*Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.*

### Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
1. Develop Hydrologically Modified DEM	Inventory/Mapping	Current State Grant	Targeting Implementation in the Blue Earth & Le Sueur Waters..	\$163,500.00			N
1. Develop Hydrologically Modified DEM	Inventory/Mapping	Local Fund	Co. Match - 3 Co. Pictometry Flight	\$55,000.00			Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
2. Develop Hydrology & Water Quality GIS Datasets	Inventory/Mapping	Current State Grant	Targeting Implementation in the Blue Earth & Le Sueur Waters..	\$25,000.00			N
3. Target Sources & BMP Suitability Analysis	Planning and Assessment	Current State Grant	Targeting Implementation in the Blue Earth & Le Sueur Waters..	\$3,000.00			N
4. Measure BMP Effectiveness & ACPF Toolset	Planning and Assessment	Current State Grant	Targeting Implementation in the Blue Earth & Le Sueur Waters..	\$6,000.00			N
5. Final Report & Training	Planning and Assessment	Current State Grant	Targeting Implementation in the Blue Earth & Le Sueur Waters..	\$14,500.00			N
6. Admin	Administration /Coordination	Current State Grant	Targeting Implementation in the Blue Earth & Le Sueur Waters..	\$0.00			N

### Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
306M - LIDAR Derived Product(s)	13	0	1488000 AC	0 AC

### Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
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## Grant Activity

### Grant Activity - 1. Develop Hydrologically Modified DEM

<b>Description</b>	Contractor will develop a hydro modified DEM in the Blue Earth and Le Sueur Watersheds. This activity includes: 1) Digitization of subsurface drainage features (culverts, bridges) as determined by available GIS data to be used as breach lines on 1281 sq mi. Data will be attributed documenting the decision for the breach line and type. Local opinion and/or field verification will be incorporated. This may involve both GIS and field work verifying data for accuracy. Based on previous work there is an estimated 15-20 breach lines/sq mi. 2) Define non-contributing areas for development of BMP targeting tools on 1715 sq mi. 3) Utilize modified DEM to develop hydrographic characteristics at a field scale. 4) Incorporate existing breach lines on 1044 sq mi. Close to half of these will run through one pass of quality control checks by the contractor. All will utilize local opinion and/or field verification if that has not been completed. All datasets will be provided in an ESRI geodatabase format utilizing draft state developed standards and terminology.
<b>Category</b>	INVENTORY/MAPPING
<b>Has Rates and Hours?</b>	No

### Activity Action - 1. Develop Hydrologically Modified DEM

<b>Practice</b>	306M - LIDAR Derived Product(s)	<b>Count of Activities</b>	1
<b>Description</b>	1. Digitize breach lines, 2. Define non-contributing areas, 3. Develop hydrographic characteristics, 4. QC breach lines.		
<b>Proposed Size / Units</b>	1488000 AC	<b>Lifespan</b>	In Perpetuity

### Grant Activity - 2. Develop Hydrology & Water Quality GIS Datasets

<b>Description</b>	Contractor will utilize deliverables from Activity 1 and generate additional hydrology and water quality data products on 2325 sq mi that include: time of concentration raster, SPI, RUSLE, CTI, field scale catchment ranking, overland flow path ranking, TP & TN loading, and ranked catchments. These datasets are necessary to run PTMApp. All datasets will be provided in an ESRI geodatabase format.
<b>Category</b>	INVENTORY/MAPPING
<b>Has Rates and Hours?</b>	No

**Activity Action - 2. Develop Hydrology & Water Quality GIS Datasets**

<b>Practice</b>	306M - LIDAR Derived Product(s)	<b>Count of Activities</b>	1
<b>Description</b>	Time of concentration raster, SPI, RUSLE, CTI, field scale catchment ranking, overland flow path ranking, TP, TN loading, ranked catchments.		
<b>Proposed Size / Units</b>	1488000 AC	<b>Lifespan</b>	In Perpetuity

**Grant Activity - 3. Target Sources & BMP Suitability Analysis**

<b>Description</b>	With support from contractor, TSA GIS Tech will conduct an analysis utilizing PTMApp that identifies where different types of BMPs and conservation practices could be placed on the landscape at field scales. Data will be created on 2325 sq mi and deliverables include GIS data sets with locations where storage, filtration, bio-filtration, infiltration, protection, and impairment source reduction BMPs could be placed on the landscape.
<b>Category</b>	PLANNING AND ASSESSMENT
<b>Has Rates and Hours?</b>	No

**Grant Activity - 4. Measure BMP Effectiveness & ACPF Toolset**

<b>Description</b>	TSA GIS Tech will conduct an analysis utilizing PTMApp to measure the TN, TP, and sediment load reductions provided by the BMPs identified in Activity 3. Next the treatment costs will be estimated based on the measured load reductions and the cost of the practice. ACPF toolset will also be run to identify candidate locations for different types of BMPs within or below fields. Upgrades in software are necessary for this toolset. The geographic extent of this analysis will be performed on 1 HUC12 subwatershed per county. The tools can be utilized as part of a collaborative planning effort including local technical staff and landowners with knowledge of the watershed. Data created will provide the basis for developing targeted implementation strategies within a priority subwatershed and using this data to work with landowners on implementation.
<b>Category</b>	PLANNING AND ASSESSMENT
<b>Has Rates and Hours?</b>	No

### Grant Activity - 5. Final Report & Training

Description	Upon completion of Activity 1 & 2, contractor will create a report that documents methodology, data content documentation, and metadata of deliverables. Contractor will provide training to local LGUs and TSA GIS Tech to introduce them to the data and PTMApp. Contractor will provide additional training and support as needed. TSA GIS Tech will ensure all datasets are available to LGUs and will provide local technical assistance in understanding and utilizing data at the local level.
Category	PLANNING AND ASSESSMENT
Has Rates and Hours?	No

### Grant Activity - 6. Admin

Description	GBERBA will serve as fiscal agent. Faribault SWCD will act as lead for creation of a GIS subcommittee, workplan creation, annual reporting, seeking and reviewing best value quotes, direct contact with contractor, and coordination across county lines.
Category	ADMINISTRATION/COORDINATION
Has Rates and Hours?	No

### Grant Attachments

Document Name	Document Type	Description
<b>2016 Competitive Grant</b>	Grant Agreement	2016 Competitive Grant - Greater Blue Earth River Basin Alliance
<b>2016 Competitive Grant executed</b>	Grant Agreement	2016 Competitive Grant - Greater Blue Earth River Basin Alliance
<b>AIG Proposal Map</b>	Grant	Targeting Implementation in the Blue Earth & Le Sueur Watersheds
<b>Application</b>	Workflow Generated	Workflow Generated - Application - 08/28/2015
<b>Blue Earth &amp; Le Sueur Impaired Waters Map</b>	Grant	Targeting Implementation in the Blue Earth & Le Sueur Watersheds
<b>Blue Earth and Le Sueur Watershed area for culvert inventory</b>	Grant	Targeting Implementation in the Blue Earth & Le Sueur Watersheds
<b>Work Plan</b>	Workflow Generated	Workflow Generated - Work Plan - 02/19/2016
<b>Work Plan</b>	Workflow Generated	Workflow Generated - Work Plan - 12/16/2015
<b>grantmap_14428_2015-08-25_10-16-48-AM.jpg</b>	Grant	Targeting Implementation in the Blue Earth & Le Sueur Watersheds