



Grant All-Detail Report

Accelerated Implementation Grant 2014

Grant Title - Blue Earth County / SWCD Watershed Implementation Targeting

Grant ID - C14-7474

Organization - Blue Earth County

Grant Awarded Amount	\$69,000.00	Grant Execution Date	
Required Match Amount	\$17,250.00	Grant End Date	12/31/2016
Required Match %	25%	Grant Day To Day Contact	Scott Salsbury

Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$69,000.00	\$69,000.00	\$0.00
Total Match Amount	\$25,000.00	\$27,497.04	\$-2,497.04
Total Other Funds	\$0.00	\$0.00	\$0.00
Total	\$94,000.00	\$96,497.04	\$-2,497.04

**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	Match
GIS Models - Training - Web Map Viewer	Inventory/Mapping	Current State Grant	Blue Earth County / SWCD Watershed Implementation Targeting	\$32,000.00	\$32,000.00	12/20/2016	N

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Match
Hydrologically Condition Digital Elevation Model (DEM)	Inventory/Mapping	Current State Grant	Blue Earth County / SWCD Watershed Implementation Targeting ..	\$37,000.00	\$37,000.00	10/7/2014	N
Hydrologically Condition Digital Elevation Model (DEM)	Inventory/Mapping	Local Fund	Local cash match	\$16,000.00	\$16,000.00	12/20/2016	Y
Hydrologically Condition Digital Elevation Model (DEM)	Inventory/Mapping	Local Fund	Local staff time and resources	\$1,500.00	\$1,678.40	5/30/2014	Y
Local QA/QC - Training Workshops - Testing Models - Validation - Implementing GIS Models	Inventory/Mapping	Local Fund	In-kind staff time and resources	\$7,500.00	\$9,818.64	8/31/2016	Y

Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
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Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
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Final Indicators Summary

Indicator Name	Total Value	Unit
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Grant Activity

Grant Activity - GIS Models - Training - Web Map Viewer

Description

GIS Models - Training - Web Map Viewer.

1. Consultant will run the following models on the hydrologically conditioned DEM: Stream Power Index (SPI), Compound Topographic Index (CTI or Wetness Index), and Revised Universal Soil Loss Equation (RUSLE). Results will be analyzed for minor watersheds, ditchsheds, and also at the field scale. GIS data products for each model will be made available and reports will be generated.
2. Consultant will provide training for SWCD and County staff regarding how to use and interpret GIS Models. After the training, additional model refinement, GIS tools or map viewer enhancements will be made to ensure that the County and SWCD have the ability and tools to analyze the model results and implement targeting and planning.
3. A web based map viewer will be created to display all data models and terrain related products like contours and hillshades.

Category

INVENTORY/MAPPING

Start Date

1-Aug-14

End Date

30-Dec-16

Has Rates and Hours?

No

Actual Results

Consultant has ran all GIS Models and has developed reports for County. Data has been provided to County and SWCD. Consultant provided 4 hour training session on March 16, 2015 for SWCD and County Staff.

Consultant created a GIS web viewer for sub-watersheds, flow paths, burn-lines, catchment rankings, overland flow path rankings. Etc. GIS Web viewer went live in November 2014 with data and was online through end of December 2016.

Link for web GIS-Viewer:

<http://blueearth.houstoneng.net/>

Consultant Invoices are attached (Invoice No. 003789, No. 002475, No. 0021960)

Grant Activity - Hydrologically Condition Digital Elevation Model (DEM)

Description

County In-kind Match: County staff, Scott Salsbury, will develop bidding and award documents and contract for County Board approval to hire consultant.
 Grant Funds and County Cash to Consultant: Consultant will hydrologically condition the 2012 LiDAR Digital Elevation Model (DEM) for Blue Earth County so that the DEM accurately reflects water flow across the landscape. This involves identifying culvert locations and burning flow lines across any road/driveways. Consultant will also analyze basins to determine whether they contribute to flow in the watershed or whether they are closed basins.

Category

INVENTORY/MAPPING

Start Date

24-Apr-14

End Date

30-Oct-16

Has Rates and Hours?

No

Actual Results

Consultant has completed all of the contracted work for DEM Hydrologic Conditioning and has completed all of work in developing water quality data sets.

DEM Conditioning data and analysis outputs were completed. The data was transferred to Matt Drewitz, BWSR on October 20, 2016. The DEM, GIS Data, and data models were transferred to the BEC Highway Department in 2015 for use in their planning and wetland applications. All data was also transferred to the BEC SWCD in 2015.

Consultant Invoices are attached to document payments made for the project.

\$16,000 of cash match from Blue Earth County was spent for this project.

40 hours of County in-kind staff time (GIS Specialist - \$41.96/hr wages plus benefits) for this activity was used for RFP development , contract development, project planning, and providing existing GIS data layers and images to consultant to begin the DEM conditioning process. The in-kind time for the activity slightly exceeded the expected time needed in developing the RFP and contract review. A total of \$1,678.40 in-kind staff was spent when \$1,500 was budgeted.

Grant Activity - Local QA/QC - Training Workshops - Testing Models - Validation - Implementing GIS Models

Description

Local QA/QC - Training Workshops - Testing Models - Validation - Implementing GIS Models.
 Local County and SWCD staff will attend training workshops on the completed data and its use. Following the training workshop County and SWCD staff will review the hydrologically conditioned DEM for any errors or omissions. This will involve both GIS office work and field work verifying locations of culverts and basins. After the DEM is hydrologically conditioned, local staff will also review the various stages of the GIS models and model outputs to ensure their accuracy.

Category

INVENTORY/MAPPING

Start Date

5-May-14

End Date

30-Dec-16

Has Rates and Hours?

No

Actual Results

County staff discussed project with consultant and assemble existing data in May 2014. Staff reviewed a draft DEM in July 2015. County staff identified additional burn lines and culverts to be added to DEM and reviewed draft DEM after both a field and office review. Staff reviewed preliminary web map that was online through the end of 2016. County staff and SWCD attended training session on March 16, 2015 on the conditioned DEM, models and best practices for the use of the data and models.

Staff time was also used data projects for several projects related to watershed contributing areas, wetlands and potential basins. County staff identified several key attributes that would be important to be added for other wetland basin prioritization. Draft DEM was used on many occasions for WCA applications and review processes in 2015 and 2016.

The DEM, GIS Data, and data models were transferred to the BEC Highway Department in 2015 for use in their planning and wetland applications. All data was also transferred to the BEC SWCD in 2015 and the State (BWSR) in 2016.

\$7500 was budgeted for this in-kind activity (150 hours at \$50/hr). \$9,818.64 of County staff in-kind time (GIS specialist) was actually used for this activity. A total of 234 hours at \$41.96 (Wages plus benefits) of County in-kind time was used for this activity. The actual County staff In-Kind time for this activity exceeded the budgeted amount that was initially estimated by \$2,318.64 (84 more hours were used for this activity than planned). The staff time needed for reviewing the data and communicating the changes back to the consultant was more than planned. In addition using and interpreting the data models and results have many benefits and uses that were not initially planned for. The time needed to understand and use the data for those projects took more time than planned.

Grant Attachments

Document Name	Document Type	Description
2014 Competitive Grant	Grant Agreement	2014 Competitive Grant - Blue Earth County
2014 Competitive Grant executed	Grant Agreement	2014 Competitive Grant - Blue Earth County
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 03/06/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/07/2017
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/07/2017
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/20/2017
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/05/2017
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/19/2016
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/26/2016
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/30/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 08/16/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 08/14/2014
Application	Workflow Generated	Workflow Generated - Application - 10/03/2013
Final Financial Report - Scott Fichtner Signature	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Financial Report - August 2014	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
GIS Catalog Summary	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
ImpairedWatersMap	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - 4 - June 2015	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - 5 - November 2015	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - 6 -Feb 2016	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - 7 - Dec 2016	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - First - May 19, 2014	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - July 02, 2014	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - May 19, 2014	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - Second- July 2014	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Invoice - Third- October 2014	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
SR_loc_10523.jpg	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Terrain Analysis Report - Houston	Grant	Blue Earth County / SWCD Watershed Implementation Targeting
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 03/08/2014
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 01/23/2014

Document Name	Document Type	Description
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 03/13/2014
grantmap_10523_2013-10-02_12-21-11-PM.jpg	Grant	Blue Earth County / SWCD Watershed Implementation Targeting