



Grant All-Detail Report

2013 - Accelerated Implementation Grant

Grant Title - 2013 - Accelerated Implementation Grant - Rock (SWCD)

Grant ID - C13-5497

Organization - Rock SWCD

Grant Awarded Amount	\$69,510.00	Grant Execution Date	
Required Match Amount	\$17,377.50	Grant End Date	1/1/2020
Required Match %	25%	Grant Day To Day Contact	

Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$69,510.00	\$69,470.27	\$39.73
Total Match Amount	\$18,245.56	\$18,245.56	\$0.00
Total Other Funds	\$0.00	\$0.00	\$0.00
Total	\$87,755.56	\$87,715.83	\$39.73

**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
FY13 CWAIF Admin/Coordination	Administration /Coordination	Current State Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)	\$2,800.00	\$2,800.00	12/31/2015	N
FY13 CWAIF Admin/Coordination	Administration /Coordination	Local Fund	FY13 Accelerated Implementation Grant Match Fund	\$0.00			Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
FY13 CWAIG - Hydrologically Reconditional DEM & Derived Hydrographic Characteristics	Technical/Engineering Assistance	Current State Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)	\$25,730.00	\$25,730.00	4/15/2014	N
FY13 CWAIG - Hydrologically Reconditional DEM & Derived Hydrographic Characteristics	Technical/Engineering Assistance	Local Fund	FY13 Accelerated Implementation Grant Match Fund	\$1,567.56	\$1,567.56	12/31/2013	Y
FY13 CWAIG Development of Web based GIS Application	Technical/Engineering Assistance	Current State Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)	\$11,810.00	\$11,810.00	12/17/2014	N
FY13 CWAIG Development of Web based GIS Application	Technical/Engineering Assistance	Local Fund	FY13 Accelerated Implementation Grant Match Fund	\$700.00	\$700.00	12/31/2014	Y
FY13 CWAIG Instructional Workshop	Technical/Engineering Assistance	Current State Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)	\$10,920.00	\$10,880.27	12/31/2015	N
FY13 CWAIG Instructional Workshop	Technical/Engineering Assistance	Local Fund	FY13 Accelerated Implementation Grant Match Fund	\$2,240.00	\$2,240.00	12/31/2015	Y
FY13 CWAIG Local Expert Quality Control/Field Verification	Technical/Engineering Assistance	Current State Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)	\$0.00			N
FY13 CWAIG Local Expert Quality Control/Field Verification	Technical/Engineering Assistance	Local Fund	FY13 Accelerated Implementation Grant Match Fund	\$13,038.00	\$13,038.00	12/31/2015	Y
FY13 CWAIG Stream Power Index, Wetness Index, RUSLE Spatial Analysis	Technical/Engineering Assistance	Current State Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)	\$18,250.00	\$18,250.00	7/21/2014	N
FY13 CWAIG Stream Power Index, Wetness Index, RUSLE Spatial Analysis	Technical/Engineering Assistance	Local Fund	FY13 Accelerated Implementation Grant Match Fund	\$700.00	\$700.00	12/31/2015	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 - FY13 CWAIF Admin/Coordination

Description	Staff from Rock SWCD (Douglas Bos and Denise Severtson) will be responsible for the administration and coordination of this grant. Douglas Bos will be responsible for the coordination of activities between the counties involved and Houston Engineering. The Office Managers (Denise Severtson and Mary Thompson) will be responsible for all Elink work, website, and final reporting documents for the project. Rock SWCD will work with the landowner involved in the project and setup up the landowner contracts. Collectively staff time spent will total 80 or more hours.		
Category	ADMINISTRATION/COORDINATION		
Start Date	1-Apr-13	End Date	31-Dec-15
Has Rates and Hours?	No		
Actual Results	<p>Staff from the Rock SWCD has been working with Houston Engineering on the coordination of this project (Hydrologically Reconditional DEM & Derived Hydrographic Characteristics) in Rock County and also with Pipestone, Murray, and Nobles County. Staff from Rock County has also done all grant administration including all accounting for this grant, Elink work, and website work. Staff has also worked on promotion of this grant in all 4 counties.</p> <p>2013: Assistant Director hours: 18.75 hrs x 39.33 = \$737.44 2015: Assistant Director 36 hrs x 50.44 = \$1,815.84</p> <p>Office Managers: Thompson: 2014: 1.5 hrs x 21.44 = \$32.16 2015: 6 hrs x 23.16 = \$138.96</p> <p>Severtson: 2013: 12.5 x 21.34 = 266.75 2014: 9 hrs x 26.62 = \$239.58</p>		

Grant Activity - FY13 CWAIG - Hydrologically Reconditional DEM & Derived Hydrographic Characteristics

<p>Description</p>	<p>This project utilizes LiDAR topographic data to determine areas of high importance for BMP implementation on the 570 square mile Rock River Watershed. The Rock River Watershed encompasses runoff from the four counties of Rock, Pipestone, Murray and Nobles which have been cooperatively addressing the water quality issues of the Rock River under a Memorandum of Agreement. The Rock River Watershed is currently listed on MPCA's 303(d) list as being impaired for turbidity and fecal coliform. This will assist in future BMP planning projects and enhance resource management capabilities. Houston Engineering will be working on this initiative. A Houston Engineering Technician will be working for approx. 266 hours and a Houston Engineering - Engineer will be working for approx. 24 hours. The base LiDAR elevation dataset will be analyzed through an intensive user review within GIS to ensure that accurate hydrologic characteristics can be developed. This will be done to account for subsurface drainage features that exist on the landscape. While LiDAR depicts a very precise representation of the earth's surface, it fails to account for subsurface structures such as bridges and culverts. If these structures are not accounted for when developing the Reconditioned DEM (HydroDEM), inaccuracies will exist derivative hydrologic characteristics. Production of this HydroDEM will ensure highest possible quality datasets can be developed to aid in the site selections of BMP practices. The HydroDEM will also be an asset for all four counties in future applications of defining watershed boundaries and flowpaths. Houston Engineering will be working on this process with 266 hours of technician time and 24 hours of engineering staff.</p>		
<p>Category</p>	<p>TECHNICAL/ENGINEERING ASSISTANCE</p>		
<p>Start Date</p>	<p>1-Apr-13</p>	<p>End Date</p>	<p>31-Dec-14</p>
<p>Has Rates and Hours?</p>	<p>No</p>		
<p>Actual Results</p>	<p>Houston Engineering completed the initial terrain conditioning including the review of the product and application of quality control of the Digital Elevation Map. The partner counties completed the ground truthing process on areas of potential digital dams to complete the Terrain Analysis. A webinar was held to discuss and transfer data. A meeting was held on February 21st with the partner counties and the Rock River Advisory Committee to discuss tools and information needed by the counties to best utilize the data. Houston Engineering finalized the DEM conditioning and water quality projects.</p>		

Grant Activity - FY13 CWAIG Development of Web based GIS Application

<p>Description</p>	<p>This project will enhance effectiveness of BMP activities such as side inlets, buffer strips, and in-line tile filtration methods. In addition to analyzing the watershed for erosive potential, the project will also use the LiDAR data to determine ideal locations to store runoff on the landscape. This is done through a process called the Compound Topographic Index, or Wetness Index. By assessing the ability to store water along with the erosive potential of the landscape, BMP implementation locations can be determined that have multiple benefits for both water quality and water quantity. The project will incorporate the results of the terrain analysis into a web-based map viewer. This would serve as a tool that each county, as well as other local government units, would use to enhance alternative analysis for future projects. Each county will receive hard copies of the analysis and reconditioned Digital Elevation Models and technical support to utilize the terrain analysis. Houston Engineering will develop this tool with 90 hours of technician time and 32 hours provided by their staff engineer.</p>		
<p>Category</p>	<p>TECHNICAL/ENGINEERING ASSISTANCE</p>		
<p>Start Date</p>	<p>1-Apr-13</p>	<p>End Date</p>	<p>31-Dec-14</p>
<p>Has Rates and Hours?</p>	<p>No</p>		
<p>Actual Results</p>	<p>Houston Engineering completed building the Web Based Viewer for the Rock River Hydrologic and Terrain Analysis. The viewer provides flow paths, existing conservation practices, catchment areas, non-contributing depression and drainage areas along with digital elevation burn lines. These data layers are used in creating catchment and overland flow ranking layers which will allow prioritization of conservation practice placement. Each County was provided a complete data set of the reconditioned LiDAR data to provide future opportunities for numerous conservation efforts. Each County within the watershed has received hard copies and electronic versions of the report also. An initial informational and educational meeting on the Web Based Viewer was put on by Houston Engineering on March 19, 2014. A final educational and training meeting on use of the Web Based Viewer is planned for January 2015.</p>		

Grant Activity - FY13 CWAIG Instructional Workshop

Description	The end products from the terrain analysis will be made available through a web-based viewer for use by other local government units as well as the general public. A final report will be developed and validated with field verification. Houston Engineering staff engineers will spend approximately 84 hours to develop curriculum and provide training for the staff of the four participating counties in the Rock River Watershed.		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	1-Apr-13	End Date	31-Dec-15
Has Rates and Hours?	No		
Actual Results	<p>3-19-2014 Introductory meeting to educate on the products that will be provided by the Rock River Terrain Analysis. Thirty area conservation staff attended.</p> <p>1/15/2015: Training to review web based viewer and Arc GIS on-line. Attended by 15 area conservation staff.</p> <p>Staff time: Assistant Director: 45 hrs x 50.44 = 2,269.80</p>		

Grant Activity - FY13 CWAIG Local Expert Quality Control/Field Verification

Description	Local staff from Murray SWCD, Pipestone SWCD, Nobles SWCD , Rock County SWCD/Land Mgt with assistance from Chessa Frahm, Missouri River Basin Project Coordinator will be performing field and map verifications (ground truthing) as part of the terrain analysis. This process will verify land features such as tile inlet, culverts, flow directions, and retention areas. The information will be used to modify the initial analysis as necessary.		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	1-Apr-13	End Date	31-Dec-15
Has Rates and Hours?	No		
Actual Results	<p>2014: Local staff from Murray SWCD, Pipestone SWCD, Nobles SWCD , Rock County SWCD/Land Mgt with assistance from Chessa Frahm, Missouri River Basin Project Coordinator, utilized aerial photographs, data files and field verification to identify tile inlets, culverts, flow directions and retention areas.</p> <p>2015: Finished final verification. GIS Technician 36.5 hrs x 35.35 = 1,290.28</p>		

Grant Activity - FY13 CWAIG Stream Power Index, Wetness Index, RUSLE Spatial Analysis

Description	Using sophisticated GIS analysis techniques on LiDAR data, along with available soils and land use data, the project will assess the propensity of erosion on the landscape through the Stream Power Index and RUSLE. Prioritization will lead to enhanced BMP effectiveness and maximize the return on investment for future projects. This project will enhance the effectiveness of BMP activities such as side inlets, buffer strips, and in-line tile filtration methods. In addition to analyzing the watershed for erosive potential, the project will also use the LiDAR data to determine ideal locations to store runoff on the landscape. This is done through a process called the Compound Topographic Index, or Wetness Index. By assessing the ability to store water along with the erosive potential of the landscape, BMP implementation locations can be determined that have multiple benefits for water quality and water quantity. A Houston Engineering Technician will be providing approximately 178 hours of time and a Houston Engineering Staff Engineer will provide 24 hours of time.		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	1-Apr-13	End Date	31-Dec-15
Has Rates and Hours?	No		
Actual Results	<p>The HydroDEM has been finalized, GIS datasets are being developed to aid in strategic placement of BMP practices to achieve optimal results. The Stream Power Index (SPI) has been developed by relating the contributing area and slope to determine the likelihood that erosion from surface runoff will occur. The Wetness Index utilizes the inverse of the SPI. This analysis indicates regions of the watershed where runoff will have a tendency to pond on the landscape. The Revised Universal Soil Loss Equations (RUSLE) is being performed across the project watershed to comparatively analyze what portions of the watershed are likely to contribute a disproportionately high amount of sediment. Houston Engineering is providing the data products that will be utilized to determine areas that will achieve the highest possible benefit for the impaired waterways within the project watershed. With these products we can now target the areas of highest priority in the watershed.</p> <p>GIS Technician: 21 hrs x 35.35 = 742.35</p>		

Grant Attachments

Document Name	Document Type	Description
1st Advance Payment Spent Financial Report	Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)
40 percent auth. email	Journal	Journal Dated - 05/09/2014
AIG Quick book Financials	Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/18/2014

Document Name	Document Type	Description
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/05/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/05/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/06/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/09/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/09/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/09/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/22/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/23/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 03/03/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 03/05/2015
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/12/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/29/2016
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/27/2014
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/29/2016
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/29/2016
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/21/2016
Disbursement Log	Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)
Final Financial Report	Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)
ROCK AIG Final Payment	Journal	Journal Dated - 01/29/2016
grant_app_general-added.rpt	Grant	2013 - Accelerated Implementation Grant - Rock (SWCD)
reporting email	Journal	Journal Dated - 02/12/2014