BWSR

Grant All-Detail Report
Projects and Practices 2017

Grant Title - Bone Lake Partially Drained Wetland Restorations
Grant ID - C17-4636
Organization - Comfort Lake-Forest Lake WD

Original Awarded Amount	**$88,000.00**	**Grant Execution Date**	**4/5/2017**
Required Match Amount	$22,000.00	**Original Grant End Date**	12/31/2019
Required Match %	25%	**Grant Day To Day Contact**	Mike Kinney
Current Awarded Amount	$88,000.00	**Current End Date**	5/17/2021

Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	$88,000.00	$88,000.00	$0.00
Total Match Amount	$22,000.00	$129,524.19	$-107,524.19
Total Other Funds	$0.00	$0.00	$0.00
Total	**$110,000.00**	**$217,524.19**	**$-107,524.19**

**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
Grant Administration & Landowner Coordination	Administration /Coordination	Current State Grant	Bone Lake Partially Drained Wetland Restorations	$20,000.00	$20,000.00	12/31/2019	N
Grant Administration & Landowner Coordination	Administration /Coordination	Local Fund	CLFLWD	$0.00	$14,305.08	12/31/2020	Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Partially Drained Wetland Restoration Construction	Non-Structural Management Practices	Current State Grant	Bone Lake Partially Drained Wetland Restorations	$44,000.00	$44,000.00	3/8/2021	N
Partially Drained Wetland Restoration Construction	Non-Structural Management Practices	Local Fund	CLFLWD	$22,000.00	$56,244.56	3/8/2021	Y
Partially Drained Wetland Restoration Engineering	Technical/Engineering Assistance	Current State Grant	Bone Lake Partially Drained Wetland Restorations	$24,000.00	$24,000.00	1/1/2018	N
Partially Drained Wetland Restoration Engineering	Technical/Engineering Assistance	Local Fund	CLFLWD	$0.00	$58,974.55	12/31/2020	Y

Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
643 - Restoration and Management of Declining Habitats	2	2	12.5 AC	10.4 AC

Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments

Final Indicators Summary

Indicator Name	Total Value	Unit
PHOSPHORUS (EST. REDUCTION)	30.00	LBS/YR

Grant Activity

Grant Activity - Grant Administration & Landowner Coordination

Description	Mike Kinney, Comfort Lake-Forest Lake Watershed District (CLFLWD) Administrator, is the Project Manager for this grant and provide oversight of all project activities, eLINK submissions, and serve as the liaison with the CLFLWD Board of Managers. The Project Manager will also ensure that the project stays on track for completion. . Angela Defenbaugh, Washington Conservation District (WCD) Senior Technician, will provide project administration support, including: coordination with all of the landowners, completion of all required BWSR reporting, and grant expense tracking. Dan Mossing, Emmons & Olivier Resources (EOR) Engineer, will provide contract management and contractor oversight support, with additional support from EOR professional engineers and wetland scientists as needed. Blayne Eineichner, CLFLWD Project Coordinator (17 years experience) will provide project management, construction oversight and landowner outreach support. Emily Heinz, CLFLWD Watershed Technician (5 years experience) will provide grant management and contracting support. The project will follow the grant timeline and meet reporting requirements. Staff rates will be reviewed annually and revised based on the BWSR spreadsheet. Easements will not be sought for the wetland restorations. Instead, local SWCD or federal program contracts will be executed between the CLFLWD and landowners to ensure project integrity throughout the lifespan. A key component of each agreement will be the creation and maintenance of a minimum 30’ buffer around each wetland.

Category	ADMINISTRATION/COORDINATION		
Start Date	5-Jan-17	**End Date**	
Has Rates and Hours?	Yes		
Actual Results	Update 1/31/2019 Administration for 2018 included project set up, planning meetings, outreach to landowners, site visit coordination, site visits, WCA discussions, and other general landowner coordination to support the work plan. 2/1/2020 Update: During the fall 2019, CLFLWD reengaged the landowners of two of the identified priority project wetlands. This included several site visits with each party. Based on conversations during these meetings, CLFLWD directed EOR to develop new conceptual designs for each project. These design concepts were delivered to the landowners for review and approval. The concepts were satisfactory to both sets of landowners and all parties agreed to proceed with the projects. Written approval was obtained from all parties to implement the projects. CLFLWD engaged in permitting discussion with LGU regarding project implementation. With assistance from Legal Counsel, CLFLWD developed legal agreements for the projects. The documents were delivered to the landowners for review in early 2020. Currently CLFLWD is in the process of finalizing the documents based on landowner feedback. EOR has begun working on the final engineering for each project. 12/31/20 Update: In 2020 the District requested a grant amendment resulting in an extended grant expiration date of May 17, 2021. The final wetland restoration project, Dunn-Boudreau-Casiday (DCB), is estimated to decrease the phosphorus load to Bone Lake by approximately 32lbs per year. In 2020 the District executed agreements with the three underlying property owners.		

Grant Activity - Partially Drained Wetland Restoration Construction

Description	This project proposes the implementation of up to six wetland restorations identified as having a high cost-benefit ratio for reducing phosphorus loading to Bone Lake. Estimated costs are based on the 2014 CLFLWD "Drained Wetland Assessment," for construction of practices noted above. These wetland restorations are estimated to reduce watershed phosphorus loads to Bone Lake by 50 lb/yr through hydrologic stabilization that will result in increased water storage, infiltration, and plant nutrient uptake. CLFLWD will provide match for the wetland restoration construction. The CLFLWD will seek additional financial assistance for project design and implementation through federal programs including the Conservation Reserve Program (CRP) and Reinvest in Minnesota (RIM). This will help the Projects and Programs grant dollars go further, and extend project lifespans beyond 10 years. The Rural Subwatershed Assessment (RSWA) was completed by the two Soil and Water Conservation District (SWCD) offices (Washington and Chisago) during the winter of 2016-2017. This RSWA identified agricultural BMPs on a field by field basis. This effort was cross referenced with the completed Bone Lake Diagnostic Study and loading to Bone Lake and Moody Lake themselves was quantified, in addition to the RSWA's edge-of-field load reduction estimates. CLFLWD obtained CWF grant C19-2734 for implementation of projects from this study. Additionally, the CLFLWD has initiated the implementation of a soil sampling program for all cropland within the Bone Lake drainage area. These grid samples will allow farmers to apply nutrients using variable rate technology available through contracted fertilizer companies and will be the basis for the development of Nutrient Management Plans. One grid sampling pilot project has already been completed that encompassed about 200 acres of cropland within the Bone Lake drainage area.

Category	NON-STRUCTURAL MANAGEMENT PRACTICES		
Start Date	14-Nov-18	**End Date**	
Has Rates and Hours?	No		
Actual Results	Update 1/23/2019: The Edell wetland restoration project was installed, and 95% partial payment was paid. 5% final payment will be paid upon inspection of completed project. Two additional wetland restoration projects are still in the design phase. 2/1/2020 Update: The final 5% payment was made to Shoreline Landscaping in spring 2020 after a final inspection was performed at the Edell project, determining that the berm heights conform to tolerances specified in the construction documents. 12/31/20 Update: In December 2020 Minnesota Native Landscapes began clearing the project access route for the DCB Wetland Restoration. Project implementation will occur after there is sufficiently deep freeze of the wetland to support heavy machinery (slated for end of January 2021). 4/21/21 Update: The DCB Wetland Restoration was completed on March 8th, completing the overall project, totaling 2 wetland restorations completed and 30 lb/yr phosphorus reduced from Bone Lake watershed load.		

Activity Action - Wetland Restorations			
Practice	643 - Restoration and Management of Declining Habitats	**Count of Activities**	2
Description	This Activity entailed implementation of 2 wetland restorations located along the tributary identified as the single highest source of phosphorus loading to Bone Lake. These wetland restorations are estimated to reduce watershed phosphorus loads to Bone Lake by 30 lb/yr through hydrologic stabilization that will result in increased water storage, infiltration, and plant nutrient uptake. The CLFLWD will seek additional financial assistance for project design and implementation through federal programs including CRP and RIM. This Activity will be primarily carried out by a contractor selected through either a request for quotes or public bidding process, depending on the final estimated cost of construction and applicable bidding requirements. A competitive quote process will be triggered if the cost of Contracting is in excess of $25,000, and a public bidding process will be triggered if the cost of Contracting is in excess of $100,000.		
Proposed Size / Units	12.50 AC	**Lifespan**	10 Years
Actual Size/Units	10.40 AC	**Installed Date**	8-Mar-21
Mapped Activities	2 Polygon(s)	**Technical Assistance Provider**	Private Consultant

Final Indicator for Wetland Restorations			
Indicator Name	PHOSPHORUS (EST. REDUCTION)	**Value**	30
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	**Calculation Tool**	Other
Waterbody	Bone Lake		

Grant Activity - Partially Drained Wetland Restoration Engineering			
Description	A 2014 drained wetland inventory and 2015 diagnostic study and implementation planning study were conducted in the Bone Lake watershed to prioritize nutrient sources, target cost-effective best management practices (BMPs), and model the measurable phosphorus reductions that will be achieved through implementation of these projects. Twenty four partially drained wetlands were identified and ranked based on their capacity for restoration to reduce phosphorus loading to Bone Lake. The technical and engineering assistance for this project will include the design of the practices to restore up to six of the highest priority wetlands identified in these reports. Techniques may range from grass spillways, outlet risers, weir structures, or other approaches that will be identified during the design process. All designs will meet NRCS standards and guidelines. The Technical and Engineering assistance includes surveying, design, cost-share program coordination, construction details, bid-document preparation, construction observation, and inspections. These services will be provided by Washington Conservation District (WCD) landscape restoration staff and Emmons & Olivier Resources (EOR) engineering staff. The design, installation and vegetation management will be led by EOR Engineers Ryan Fleming P.E. (18 years experience) and Dan Mossing EIT (4 years experience) with surveying and design support from Angela Defenbaugh (4 years experience). Additional design review and support will be provided by additional staff members of the CLFLWD consulting engineer, Emmons and Olivier Resources (EOR). Staff rates will be reviewed annually and revised based on the BWSR spreadsheet.		
Category	TECHNICAL/ENGINEERING ASSISTANCE		
Start Date	22-Aug-17	**End Date**	
Has Rates and Hours?	Yes		
Actual Results	Update 1/31/2019 Technical assistance/engineering for 2018 included survey work and design work for 3 wetland restoration projects, and construction oversight for 1 installed wetland restoration project. 12/31/20 Update: Permitting and final design was completed for the final wetland restoration project, the Dunn-Boudreau-Casiday (DCB) Wetland Restoration. The construction contract was awarded to Minnesota Native Landscapes, and the pre-construction meeting was held on December 4, 2020.		

Grant Attachments

Document Name	Document Type	Description
2017 Bone Lake Wetland Resto billing report	Grant	Bone Lake Partially Drained Wetland Restorations
2017 Competitive Grant	Grant Agreement	2017 Competitive Grant - Comfort Lake-Forest Lake WD
2017 Competitive Grant AMENDMENT - CLFLWD	Grant Agreement Amendment	
2017 Competitive Grant Amendment EXECUTED	Grant Agreement Amendment	
2017 Competitive Grant amendment EXECUTED	Grant Agreement Amendment	
2017 Competitive Grant executed	Grant Agreement	2017 Competitive Grant - Comfort Lake-Forest Lake WD
2018 Bone Lake billing report 01312019	Grant	Bone Lake Partially Drained Wetland Restorations
40% Financial Report	Grant	Bone Lake Partially Drained Wetland Restorations
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 06/24/2020
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 02/03/2020
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/23/2019
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/22/2019
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/22/2019
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 05/08/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/04/2018
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 04/29/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 04/12/2021
All Details Report	Workflow Generated	Workflow Generated - All Details Report - 01/27/2021
Application	Workflow Generated	Workflow Generated - Application - 08/08/2016
Bone Lake Partially Drained Wetland Restorations	Grant	Bone Lake Partially Drained Wetland Restorations
Extension Request #2	Journal	Journal Dated - 08/05/2020
Final Financial Report	Grant	Bone Lake Partially Drained Wetland Restorations
Grant Extension #2	Grant Agreement Amendment	
Prioritized List of Sites	Grant	Bone Lake Partially Drained Wetland Restorations
Revised Work Plan	Grant	Bone Lake Partially Drained Wetland Restorations

Document Name	Document Type	Description
Revised Work Plan	Grant	Bone Lake Partially Drained Wetland Restorations
Wetlands Prioritized List	Grant	Bone Lake Partially Drained Wetland Restorations
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 03/17/2017
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 03/31/2017
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 10/24/2019
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 12/14/2016
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 10/07/2019
Work Plan Budget	Grant	Bone Lake Partially Drained Wetland Restorations
Work Plan Text	Grant	Bone Lake Partially Drained Wetland Restorations
grantmap_17061_2016-08-08_11-47-00-AM.jpg	Grant	Bone Lake Partially Drained Wetland Restorations