

## **ML2016 Project Abstract**

For the Period Ending June 30, 2019

**PROJECT TITLE: Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area**

**PROJECT MANAGER: Wiley Buck**

**AFFILIATION: Great River Greening**

**MAILING ADDRESS: 251 Starkey St., Ste. 2200**

**CITY/STATE/ZIP: St. Paul, MN 55107**

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**FUNDING SOURCE: Environment and Natural Resources Trust Fund**

**LEGAL CITATION: M.L. 2016, Chp. 186, Sec.2, Subd. 08g**

**APPROPRIATION AMOUNT: \$ 509,000**

**AMOUNT SPENT: \$ 473,337**

**AMOUNT REMAINING: \$ 35,663**

### **Sound bite of Project Outcomes and Results**

GRG restored/enhanced 340 acres of habitat, through partnerships, in strategic habitat locations throughout the metro with a wide variety of landowners. In the process, we engaged 830 volunteers who participated in deeply engaging, impactful outdoor activities so they and the community better understand, support, and enjoy the ecological restoration/enhancement process.

### **Overall Project Outcome and Results**

Over the course of the appropriation, we:

- Restored/enhanced 342 acres of high quality natural areas. This is more than double our original goal of 150 acres.
- Restored/enhanced 0.29 miles of shoreline, which is 116% of our original goal.
- Engaged 839 volunteers – 129% of our original goal of 650 - who participated in deeply engaging, impactful outdoor activities so they and the community better understand, support, and enjoy the ecological restoration/enhancement process.
- Continued to advance the practice of restoration/enhancement with developing feasible new approaches at a challenging site, and collected valuable information with a sample of restoration evaluations.
- Leveraged \$176,000 in match, including cash and in-kind, from a variety of sources. This is 94% of our goal, comparable to our proportional spend of 93% of the allocation.

The successful use of this appropriation underscores the continued importance of our ecological restoration and enhancement work, which is rooted in partnerships, community engagement, and sound practice.

### **Project Results Use and Dissemination**

Over 830 volunteers received active education including results of project, techniques, and answers to specific questions during participation in volunteer restoration/enhancement events. Emails about these volunteer events were sent over 15 times to our 8500 general subscribers, and over 30 times to our 350 Volunteer Supervisor subscribers who also received a packet of information when they led a small group of general volunteers. All volunteers received follow-up thank you emails recapping the project. Events were also posted several times on Twitter, with 600 followers, and at least 6 Facebook posts with 1400-1500 followers. Two website posts with 1500 views per month, featured volunteer events. Over 1300 hard copy fliers, and 4800 hard

copy/digital mix of fliers featuring events were distributed at over 20 outreach events. One site was featured on a Kare11 news article.

To advance the practice of restoration and enhancement, GRG partnered with a subcontractor for their powerpoint presentation '*Hay Now!*' at the 11th Annual Scientific Meeting '*Cultivating Innovative Restoration Connections in the Midwest*' of the Society for Ecological Restoration Midwest Great Lakes Chapter April 12-14, 2019 at Central College in Pella, Iowa. The meeting was attended by over 200 restoration ecologists. This presentation featured two case studies of conservation haying at Pilot Knob Hill (ML2016) and South Washington Conservation Corridor (ML2015).



# Environment and Natural Resources Trust Fund (ENRTF)

## M.L. 2016 Work Plan

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**Date of Report:** October 31, 2019

**Date of Next Status Update Report:**

**Date of Work Plan Approval:** June 7, 2016

**Project Completion Date:** June 30, 2019

**Does this submission include an amendment request?** No

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**PROJECT TITLE:** Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area

**Project Manager:** Wiley Buck

**Organization:** Great River Greening

**Mailing Address:** 251 Starkey Street, Suite 2200

**City/State/Zip Code:** St. Paul, MN 55107

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**Location:** Anoka, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, and Washington Counties

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**Total ENRTF Project Budget:**

**ENRTF Appropriation:** \$509,000

**Amount Spent:** \$473,337

**Balance:** \$35,663

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**Legal Citation:** M.L. 2016, Chp. 186, Sec.2, Subd. 08g

### **Appropriation Language:**

\$509,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Great River Greening to restore approximately 150 acres of forest, prairie, woodland, and wetland and 0.15 miles of shoreline throughout the greater Twin Cities metropolitan area, using volunteers, and to conduct restoration evaluation on previously restored parcels. A list of proposed restorations and evaluations must be provided as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

**I. PROJECT TITLE:** Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area

**II. PROJECT STATEMENT:**

Greening will restore significant upland and shoreline habitat throughout the metro area, engage community volunteers, and apply innovative techniques, conduct evaluations, and implement corrective actions to advance restoration practices.

Nine ecologically significant restoration projects have been identified, including forests, prairies, woodlands, wetlands, and shorelines. By working with an array of local, state, federal, non-profit, and private partners, using ENRTF and matching funds, Greening will restore 144 acres, 0.25 miles of shoreline and engage 650 volunteers. These projects are exemplary of our continued engagement in the metro area, and specifically as a function of our active membership in the Metro Conservation Corridors (MeCC) partnership. To advance the practice of restoration, Greening will continue to develop applications for conservation haying/grazing, evaluate 18 of our projects, and implement corrective actions on an estimated 13 acres at one site.

**III. OVERALL PROJECT STATUS UPDATES:**

**Amendment Request 08/12/2016**

We propose to keep the project lists for ML 2014, ML 2015, and ML 2016 ‘as is’, and request permission to begin expending the ML 2016 funds immediately so we can capture the maximum amount of calendar time for the restorations on the ML 2016 restoration list. These 2016 expenditures would be before 2015 and 2014 appropriations are fully spent.

We offer the following summary of our earlier allocations as support for this request:

- ML 2014 has nine of 10 projects underway. The 10<sup>th</sup> project will begin once the stormwater management improvements along a bordering highway are completed, which is scheduled for late summer 2016. Based on this, the 2014 allocation is fully budgeted and on track for being expended without any changes to the project list.
- Greening’s ML 2015 allocation is fully budgeted over all the projects on the 2015 restoration list, and is progressing according to schedule. Currently, we cannot determine with any confidence that there will be 2015 funds available to be shifted to projects on the ML 2016 project list.

Details of the spending schedule for the 2014 and 2015 appropriations are found in the table below:

<b>Projected Spending Amounts</b>					
<b>M.L. 2014</b>					
	6/30/2016	12/31/2016	6/30/2017		
9 Projects Underway	\$ 143,000	\$ 243,000	\$ 274,500		
Lilydale (Developing)	\$ 500	\$ 15,000	\$ 25,500		
<b>Total</b>	<b>\$ 143,500</b>	<b>\$ 258,000</b>	<b>\$ 300,000</b>		
<b>M.L. 2015</b>					
	6/30/2016	12/31/2016	6/30/2017	12/31/2017	6/30/2018
Activity 1	\$ 21,000	\$ 87,667	\$ 114,333	\$ 141,000	\$ 180,000
Activity 2	\$ 24,000	\$ 60,000	\$ 84,000	\$ 108,000	\$ 136,000
Activity 3	\$ 17,000	\$ 37,000	\$ 47,000	\$ 67,000	\$ 84,000
<b>Total</b>	<b>\$ 62,000</b>	<b>\$ 184,667</b>	<b>\$ 245,333</b>	<b>\$ 316,000</b>	<b>\$ 400,000</b>

There are no changes to the 2016 restoration list nor the 2016 budget associated with this Amendment Request.

## **Amendment Approved by LCCMR 09/14/2016**

### **Amendment Request 02/01/2017**

The sub-contractor for the City of Lilydale did not complete the Highway 13 stormwater improvements this past fall as anticipated; the anticipated completion date is now spring 2017. We cannot begin the Lilydale Bluffs restoration until these improvements are made, and with this latest delay we no longer have sufficient time to complete this project before the 2014 allocation ends. Therefore, we seek to shift the majority of the Lilydale Bluffs project to this 2016 appropriation. In turn, we seek to move a portions of the Westwood Hills Phase II, and Allemansrätt Phase III projects from the 2016 allocation to the 2014 allocation (Westwood Hills Phase I, and Allemansrätt Phase I and II, are currently included in the 2014 restoration list).

### **Amendment Approved by LCCMR 2/27/2017**

#### **Project Status as of February 1, 2017:**

Five projects are underway, two projects have recently finalized agreements with the landowners, and four projects have landowner agreements scheduled for board approval. A twelfth project, Wolsfeld Woods SNA Phase II, has been delayed due to a DNR staff vacancy. As anticipated, the Lions Levee Park restoration is not moving forward. A total of 206 volunteers were engaged during this period, including 24 youth and 19 trained volunteer supervisors. Volunteers included members of the general public, public and private organizations, school groups, and private institutions.

#### **Project Status as of August 1, 2017:**

Nine projects are underway, including Rick Johnson Park and Bush Lake, and project planning has resumed at Lilydale Bluffs. Painters Creek I, II, III and Mud Lake are in development awaiting landowner agreements. During winter and spring 2017, Great River Greening held three public and three private volunteer events, engaging a total of 340 volunteers (280 adults and 60 youth) in restoration activities and education.

### **Amendment Request 02/01/2018**

Budget Amendment: Greening respectfully requests to shift \$2,000 from Activity 1 Personnel (budget decrease to \$103,000) to Activity 1 Other Volunteer Event Supplies (budget increase to \$12,000) for volunteer events, in order to engage up to 300 additional volunteers.

Amendment Approved by LCCMR 2/13/2018

#### **Project Status as of February 1, 2018:**

Ten Activity 1 projects and both Activity 2 projects are underway, with planning, contracting, monitoring and/or restoration activities continuing; the Rick Johnson Park project is complete. In fall 2017, Great River Greening held one public volunteer event, engaging 134 volunteers from Colleges, community groups, and businesses in restoration activities and education. To date, Greening has engaged a total of 680 volunteers in public or private restoration events at six project sites, already exceeding output target of 650 volunteers engaged.

While spending is behind schedule, Greening anticipates an acceleration in activity and associated draw down of funds during the remaining 18 months.

### **Amendment Request 08/01/2018**

Greening wishes to add two parcels to our Parcel List:

- 1) Minnehaha Creek Methodist Hospital Easement (shared funding and pro-rated deliverables with ML2017), and
- 2) Sunfish Lake Park (shared funding and pro-rated deliverables with ML2017).

Greening respectfully requests to move \$35,000 from Activity 1 Wolsfeld Woods SNA project, as bid prices came in under budget, and move these same funds to these two priority projects that have recently been developed. No line item budget changes are associated with the parcel additions at this time.

Greening respectfully requests to move \$5,000 from Activity 1: Professional/Technical/Services Contracts, to Activity 1: Personnel. The vegetation monitoring of the conservation haying units at Painter's Creek is best handled by Greening staff so as to ensure method consistency, and comparison, to our other vegetation monitoring activities and to employ LCCMR methods consistently.

Greening respectfully requests to reduce the Wolsfeld Woods SNA budget by an additional \$2,000, shifting this amount to Bush Lake Shoreline parcel, to ensure funding for complete establishment of the restoration improvements. No line item budget changes are associated with this shift.

Greening respectfully requests to add \$1,500 to Mud Lake parcel budget, by reducing each of the three Painter's Creek parcel budgets by \$500. No line item budget changes are associated with this shift.

Amendment Approved by LCCMR 8/6/2018

**Project Status as of August 1, 2018:**

Ten original Activity 1 projects and both Activity 2 projects are underway or complete, with planning, implementation, and monitoring in process; Lilydale Bluffs Activity 1 project is further delayed due to slope instability in adjacent and similar areas; a decision will be made soon on whether or not to proceed.

Spending rate needs to and is anticipated to increase significantly in the final months. Trust Fund spending is lower due to some delays in activity, increased match spending, and bids coming in under budget.

**Amendment Request 02/15/2019**

Greening respectfully requests to add Sherburne National Wildlife Refuge to our parcel list:

- This large prairie interseeding project is currently underway with Outdoor Heritage Funds, including seed purchases and contracted seeding expenses upcoming between now and June 30, 2019. This amendment request is to fund a portion of the upcoming expenses using this ML2016 appropriation.

Greening respectfully requests to continue Activity 2 outcome 2 corrective action on the Pilot Knob Hill site as a part of the ML2017 project.

- Several improvements, and monitoring, at the site are underway for this Activity 2 project, and will continue. We request to add Pilot Knob to the ML2017 parcel list (under separate amendment request) as this project could benefit significantly from another year of activities and monitoring, outlined in detail in the status update below. Corrective actions and monitoring on the Pilot Knob site will be reported on in the ML 2017 work plan and this project's final report.

Greening respectfully requests to make final budget adjustments to existing parcels:

- Parcels receiving large adjustments include: Allemansratt Park, which has increased in size by 10 acres due to a recent acquisition by the City to complete ownership around Bull Lake; Wolsfeld Woods SNA which came in significantly under budget; Westwood Hills Nature Center, which benefitted from a budget boost; Lilydale Bluffs, which is no longer moving forward; Minnehaha Creek Methodist Hospital Easement, which already has shared funding and pro-rated deliverables with ML2017, but few expenses will be incurred before June 30, 2019; Sunfish Lake Park, which is not currently moving forward; and Restoration Evaluations project which is experiencing economy of scale with a similar project funded in ML2017. Other parcels are receiving smaller adjustments as budget actuals are becoming more precise.

Combined, these parcel and budget adjustments require changes to line item budgets, and a shift of funds between Activity 1 and Activity 2, as summarized below and detailed in Project Budget attachment. We request these changes as we believe this plan to be the best use of the remaining funds for meeting deliverables.

Amendment Approved by LCCMR 2/22/2019

**Project Status as of February 1, 2019:**

Ten Activity 1 projects and both Activity 2 projects are underway or complete, with planning, implementation, and monitoring in process; the eleventh Activity 1 project was removed and replaced per the enclosed amendment. In the fall of 2018, Great River Greening held two private events, engaging corporate volunteer organizations. To date, Greening has engaged a total of 839 volunteers in restoration events at six project sites, exceeding the output target of 650 volunteers engaged.

**Amendment Request 04/30/2019**

Great River Greening respectfully requests changes to category and parcel budgets, to more accurately capture our anticipated costs as we close out the grant. Several of these budget changes are partial reversals of our budget changes requested in February, and represent corrections as we complete our transition to new project tracking software, while others represent more accurate projections for the spring season as the growing season commences. Finally, we are correcting an earlier math error on our Lilydale parcel budget.

These budget amendment requests are detailed in the text below, and restoration list and budget attached via email.

Amendment Approved by LCCMR 5/6/2019

**Project Status as of June 30, 2019:**

Restoration and enhancement projects were all completed; some are continuing beyond the grant period.

**Overall Project Outcomes and Results:**

Over the course of the appropriation, we:

- Restored/enhanced 342 acres of high quality natural areas. This is more than double our original goal of 150 acres.
- Restored/enhanced 0.29 mi of shoreline, which is 116% of our original goal.
- Engaged 839 volunteers – 129% of our original goal of 650 - who participated in deeply engaging, impactful outdoor activities so they and the community better understand, support, and enjoy the ecological restoration/enhancement process.
- Continued to advance the practice of restoration/enhancement with developing feasible new approaches at a challenging site, and collected valuable information with a sample of restoration evaluations.
- Leveraged \$176,000 in match, including cash and in-kind, from a variety of sources. This is 94% of our goal, comparable to our proportional spend of 93% of the allocation.

The successful use of this appropriation underscores the continued importance of our ecological restoration and enhancement work, which is rooted in partnerships, community engagement, and sound practice.

**IV. PROJECT ACTIVITIES AND OUTCOMES:**

**ACTIVITY 1:** Restore Upland, Wetland, & Shoreline Habitat; Engage Volunteers

**Description:** We will restore 144 acres of forest, prairie, woodland, and wetland; and 0.25 miles of riparian shoreline in nine projects located within the mapped Metro Conservation Corridors. Application of conservation haying/grazing, with monitoring, will be employed in two Painters Creek projects. At Wolsfeld Woods SNA, the habitat is being degraded by erosion from the trails; for this project, trail surface, routing, and erosion control improvements will be an integral part of the site restoration. We will engage 650 volunteers in appropriate, meaningful tasks as part of these restorations. All projects will include a management plan and initial restoration evaluation at the end of the grant period.

**Summary Budget Information for Activity 1:**

**ENRTF Budget:** \$ 480,750  
**Amount Spent:** \$ 449,993  
**Balance:** \$ 30,757

<b>Outcome</b>	<b>Completion Date</b>
1. Restore 149 acres incl. management plan and initial evaluation; implement conservation haying/grazing on >5ac; improve trails in 60 acres	June 30, 2019
2. Restore 0.25 miles of shoreline	June 30, 2019
3. Engage 650 volunteers	June 30, 2019

**Activity Status as of February 1, 2017:**

A public event was held at Old Cedar Avenue Bridge trailhead, engaging 176 volunteers, including 24 youth 17 trained volunteer supervisors. Volunteers cleared invasive species then seeded 0.7 acres, and planted 761 trees/shrubs over 1.8 acres. All volunteers received a small group ‘roving’ presentation on the restoration techniques, the restoration plan, and the importance of the site and its location. Volunteer supervisors received written information before the event to engage general volunteers with information.

A sub-contract was awarded for forestry mowing for invasive removal and thinning, at Westwood Hills Nature Center II, with work anticipated to begin in late winter 2017.

At Allemansrätt Park III, forest enhancement advanced significantly with the initial removal of non-native invasive shrubs over all acres, during the winter.

Agreement with Carver County for shoreline restoration at Rick Johnson Park has been finalized and approved; work is being scheduled, including a spring 2017 volunteer event.

Agreement with City of Bloomington on the Bush Lake restoration has been finalized and approved.

Agreement with Minnehaha Creek Watershed District for restoration at Mud Lake and Painters Creek I, II and III is in advanced development.

Restoration at Wolsfeld Woods SNA II has not progressed recently due to a staff vacancy. As anticipated, the Lions Levee Park restoration will not be moving forward.

**Activity Status as of August 1, 2017:**

Project work and/or planning is underway at four additional sites: Bush Lake, Lilydale Bluffs, Rick Johnson Park, and Wolsfeld Woods SNA. Work has continued at Allemansratt Park, Old Cedar Avenue Bridge, and Westwood Hills Nature Center. Contract development is in process for Mud Lake and projects at Painters Creek.

Allemansratt Park: A public volunteer event engaged 82 citizens in hauling and burning buckthorn and involved volunteers in discussions about patterns of growth of invasive species, quality of wetlands, and ecological function of over-mature large trees. Woody invasive cut and follow up spray was completed on 37 acres.

Bush Lake: Work is underway prepping the site for a fall 2017 seeding.

Lilydale Bluffs: Project planning has resumed following the delayed completion of Highway 13 stormwater improvements by the City of Lilydale's sub-contractor.

Old Cedar Avenue Bridge: A private event with Minneapolis South High School involved 25 adult and 12 youth volunteers in cutting and stacking invasive trees and shrubs into burn piles, collecting and analyzing wetland macroinvertebrates, and sampling and analyzing water quality in nearby wetlands and streams. The education event involved students in discussions on geological history of the Minnesota River; impacts of humans on riparian ecosystems; connectivity between human use, plant communities, water quality, and aquatic ecosystems; and environmental career and volunteer opportunities.

Rick Johnson Park: A public volunteer event involved 42 adults and 11 youth in planting shrubs and plugs of wildflowers and grasses over a 2.5 acre area covering 260 feet of Crow Wing river shoreline. Volunteers engaged in discussions about the importance of vegetation, human impacts on shoreline erosion, and the impact of shoreline erosion on riverine water quality.

Westwood Hills Nature Center: The Greening crew treated invasive species on 20 acres. One public and two private volunteer events were held, engaging 121 adult and 27 youth volunteers, as well as 20 trained volunteer supervisors. Volunteers planted and fenced wildflower plots, pulled garlic mustard, planted trees and engaged in discussions about the impact of invasive plants on forest diversity, herbivore densities in urban parks and their impact on ecological restoration, and the process of an ecological restoration project.

Wolsfeld Woods SNA: Work began in July with an RFP for services and scheduling of summer and fall activities, including a public volunteer event.

**Activity Status as of February 1, 2018:**

Project work and/or planning has continued at Allemansratt Park, Bush Lake, Lilydale Bluffs, Old Cedar Avenue Bridge, Westwood Hills Nature Center, and Wolsfeld Woods SNA and project work and/or planning has started at Mud Lake and Painters Creek. Community volunteer restoration work is complete at Rick Johnson Park.

Allemansratt Park: Contracted woody invasive control was completed in fall 2017.

Bush Lake: Site was prepped for seeding summer 2017 and was then seeded in fall 2017.

Lilydale Bluffs: Greening staff met with the City of Lilydale and MnDOT staff to advance plans.

Mud Lake: Agreement with Minnehaha Creek Watershed District for restoration at Mud Lake has been executed. Contract work is being planned for winter 2018.

Old Cedar Avenue Bridge: USFWS continues to prepare the project site for seeding in 2018.

Painters Creek I-III: Contractors have started the removal and treatment of woody exotics at the Waldera/Backus, Weiss, and Chute project sites.

Rick Johnson Park: Volunteers planted 150 forbs and grass plugs and over 100 trees and shrubs in spring 2017, helping revegetate Crow Wing River shoreline to control erosion. Habitat/shoreline restoration is complete.

Westwood Hills Nature Center: Contracted buckthorn removal and chemical treatment was completed in fall/winter 2017.

Wolsfeld Woods SNA: On October 14, 134 volunteers (including 63 adult volunteers, 59 youth volunteers, and 12 volunteer supervisors) from Anoka-Ramsey Community College Upward Bound, Buckthorn Busters, Minneapolis Community and Technical College, and van Wagenen Financial Services removed invasive buckthorn from the metro-area Big Woods habitat near Long Lake. While pulling buckthorn, volunteers enjoyed the sugar maples changing color and learned about the site's restoration history, the importance of big woods, and the impact of invasive removal.

**Activity Status as of August 1, 2018:**

Allemansratt Park: Contracted woody invasive control was completed in fall 2017 and monitoring is underway, with understory seeding identified as the next step.

Wolsfeld Woods SNA II: A contractor has been secured to conduct Buckthorn and Garlic Mustard removal. Plans for trail best management practices were developed.

Westwood Hills Nature Center: Greening staff have monitored the efficacy of the previous buckthorn treatment, providing guidance to the nature center staff for further control, and have planned shoreline invasive control efforts which will be initiated in the next reporting period.

Lilydale Bluffs: A mudslide on Hwy 13 in the City of Lilydale limits, and other slope failures in within and near the project boundaries, is resulting in reconsideration and further delays. A status determination is expected to occur during the next reporting period.

Old Cedar Ave Bridge Trailhead, is complete and scheduled for initial evaluation.

Mud Lake: Contractors removed woody invasive shrubs and trees in winter 2018 and are actively working on upland grassland enhancement.

Painters Creek I-III: Greening staff and contractors have removed exotic and invasive shrubs and trees, completed forestry mowing on understory invasives, and are actively working on upland as well as wetland invasive treatment and enhancement.

Rick Johnson Park, is complete and scheduled for initial evaluation.

Bush Lake shoreline monitoring work indicated a need for additional establishment activities.

In spring 2018, an additional 107 volunteers were engaged in the restoration process, for a running total of >750 volunteers active at six parcels, approaching our upwardly revised volunteer engagement.

**Activity 1 Status as of February 1, 2019:**

Allemansratt Park: Phases I and II are complete, with a fall foliar spraying this past year. Phase III remains underway, with follow-up invasive shrub control and tree maintenance schedules; and is ready to expand to include invasive shrub removal and light cedar thinning of an additional, newly acquired 10 acre parcel by the City of Lindstrom, that completes public ownership around Bull Lake.

Wolsfeld Woods SNA II: Contract awarded for buckthorn removal and garlic mustard mapping. Contractor started cutting and treating buckthorn portion of work in January 2019. In the summer of 2018 Greening crew (not subcontractor, as originally anticipated) implemented several trail BMPS to help mitigated erosion from stormwater runoff and compaction from visitors. Practices included installation of a series of waterbars, outsloped steps and a bridge over an intermittent stream channel that was seeing sign of compaction from foot travel.

Westwood Hills Nature Center: Private groups volunteered to remove re-sprouting buckthorn, as well as to establish 1 acre of pollinator plant nursery plots. General Mills provided the funding as well as the volunteers for these 10 herbivory protected plots, planting more than 3,000 plants and seeding 2 acres with native species to benefit local pollinator populations as well as provide seed for future seeding of additional acres at this site.

Old Cedar Ave Bridge Trailhead: Worked with USFWS to identify seed species for purchase and action steps to complete the project.

Mud Lake: Contractor followed up with fall woody invasive treatment and prepared then planted the upland prairie.

Bush Lake: Conducted establishment maintenance.

Painters Creek I-III: Contractor followed up with fall woody invasive treatment on all properties, and a second contract was awarded to hay the previously established upland prairie on the Rye/Weiss property to promote native species. Contractor also prepared then planted the prairie on the Chute property.

Rick Johnson Park: Project was previously completed.

Lilydale Bluffs: This project is not moving forward.

**Activity Status as of August 1, 2019:**

Allemänsrätt Wilderness Park: Invasive shrub removal and light thinning was completed in the City's newly acquired 10 acre forest parcel. Encroaching red cedar was thinned in high-quality oak openings in the north section of the park, to further promote oak and native understory regeneration. A GRG volunteer site steward was active at this site, pulling and lopping buckthorn sprouts while monitoring vegetation.

Wolsfeld Woods SNA Phase II: Buckthorn and garlic mustard treatment was completed; garlic infestation mapping was completed.

Westwood Hills Nature Center: In May, 30 volunteers from General Mills returned to seed and maintain two acres of prairie plantings that their organization funded and installed in fall 2018.

Old Cedar Ave Bridge Trailhead: Seeds and plants were purchased and sown/installed by USFWS. All project work is complete.

Mud Lake: Project work was completed prior to this period.

Painters Creek I-III: The final wetland invasive species treatment, and the installation of native plants in the wet prairie, were completed. A

Rick Johnson Park: Project work was completed prior to this period.

Bush Lake: Completed final mowing and seeding in the spring of 2019. All project work is complete.

Sherburne National Wildlife Refuge: A total of 200 acres of prairie was inter-seeded in spring 2019 after a burn, to increase floral diversity. This was a portion of a larger acreage project that included funding from Outdoor Heritage Fund.

**Final Report Summary:**

Great River Greening restored/enhanced 342 acres of high quality natural areas, including prairie, savanna, wetland and forest. We further restored/enhanced 0.29 mi of shoreline. Landowners included local municipalities, counties, state and federal confirming the importance for this work for a suite of landowners and sites. Further underscoring the importance of the work was our achievements in engaging 839 volunteers in a variety of meaningful restoration/enhancement activities including woody invasive removal and prairie/pollinator plantings. By doing so, volunteers of diverse age and backgrounds spent time outdoors together in deeply engaging activities, in the process. receiving an active education in the techniques and importance of restoration/enhancement, and the partnerships that make it work . Partnerships included leveraging \$176,000 in match, including cash and in-kind, from a variety of sources, not just landowners.

**ACTIVITY 2: Advance Restoration Practices with Evaluations and Corrective Actions**

**Description:** Greening will develop our ‘third year’ restoration evaluation protocol, based on the U of M findings and protocol (‘Restoration Evaluations’ ML 2013 subd. 04I) and possibly other sources. We will then evaluate our 18 projects from our ML 2011 Trust Fund appropriation and write an overall report on our findings, for dissemination to MeCC partners, and U of M. The goals of these evaluations are to assess the condition of the projects, identify any corrective actions that are warranted, and to improve restoration practices and guide future restoration projects.

Evaluations previously conducted on our Pilot Knob Hill restoration project greater than three years old reveals an underperforming restoration on approximately 13 acres of 24 total, despite sustained maintenance activities. Greening, with landowner, stakeholder, and peer input, will develop a revised management plan based on the evaluations and initial approach, and guided by the results of the grazing trials underway and pending bumblebee surveys. Greening will then implement these corrective actions at this site, and conduct an initial evaluation of these corrective actions at the end of the grant period.

**Summary Budget Information for Activity 2:**

**ENRTF Budget: \$28,250**  
**Amount Spent: \$23,344**  
**Balance: \$ 4,906**

<b>Outcome</b>	<b>Completion Date</b>
<b>1. Revise management plan and identify corrective actions at Pilot Knob</b>	March 31, 2017
<b>2. Implement Pilot Knob corrective actions; evaluate</b>	June 30, 2019
<b>3. Evaluate 18 restoration projects from 2011 appropriation</b>	June 30, 2019

**Activity 2 Status as of February 1, 2017:**

Greening staff met with colleagues to share and coordinate restoration evaluation techniques and practices, including the evaluation references including in the current Trust Fund RFP. Corrective action at Pilot Knob Hill included draft planning, with a presentation to the landowner scheduled for March 2017. Woody encroachment removal was completed with a forestry mower in the winter, and in the fall by volunteers and Greening technicians; volunteers re-seeded cleared areas with seed collected on site. Volunteers also maintained planted oak trees.

**Activity 2 Status as of August 1, 2017:**

An outline of the revised Pilot Knob Hill management plan was presented to Mendota Heights City Council. An advanced draft is being developed for final review by landowners and partners and for peer review by Xerces Society, due to the presence of the federally endangered rusty patch bumble bee. The current plan calls for more pollinator shrubs and stipulates maximum disturbance allowed per refugia guidelines through a

combination of fire, mowing, conservation haying, and conservation grazing. While conservation grazing produces desirable results, this method will not be pursued further unless cost decreases and/or livestock availability increases. Evaluation protocol is near final, with peer review scheduled for later this year.

**Activity 2 Status as of February 1, 2018:**

The draft revised management plan has been reviewed and the final draft plan is scheduled for completion in early 2018. Following the plan for increasing the amount of ecological disturbance, both a prescribed burn and conservation haying was conducted at the Pilot Knob Hill site in fall 2017. In addition, a public volunteer event is being planned for May 2018; around 75 volunteers will plant pollinator shrubs and over-seed the fall burn unit with milkweed. Volunteer restoration activities will follow the revised management plan, increasing woody and pollinator species for the federally endangered Rusty-Patched Bumble Bee, on the worst performing area at the Pilot Knob Hill site. Restoration evaluations are scheduled for growing season 2018.

**Activity 2 Status as of August 19, 2018:**

Matching funds from National Fish and Wildlife Foundation have reduced the rate of Trust Fund spending in Activity 2 to date.

For Pilot Knob, portions of the revised management plan are continuing to be implemented. The shrub component of the grassland is being increased on 3 acres of the site, to improve the habitat value, stay in line with target community, and easily be integrated into site management. The main activity for increasing the shrub component consisted of planting over 1100 pollinator shrubs with volunteers in May, as well as casting milkweed pods in the burn unit. As desired, the mesic grass component is higher than it has been in recent years.

Reduction of overabundant native Canada goldenrod activities consisted of: monitoring the fall 2017 conservation haying unit and controlled burn unit; planning two different oversprays for summer 2018; and planning to increase haying acreage. The results of the fall 2017 conservation haying are encouraging for Canada goldenrod reduction, as this species was clearly weakened by the haying with more insect herbivory and relatively stunted growth. The 7ac fall 2017 burn, anticipated to increase or maintain diversity on this high performing unit, now will receive overspray later in the growing season.

Restoration evaluation protocol has been finalized in conjunction with U of M, DNR, and FMR. Beta test of the monitoring protocol has been completed, and site evaluations are underway with the first reports coming in for team review.

**Activity 2 Status as of February 1, 2019:**

Pilot Knob Corrective Action implementation consisted of: site prep for 3 acres of re-seeding in spring 2019, including pre-stratification of the forb seed by Greening; a second round of conservation haying in fall 2018 (the first round from fall 2017 weakened the Canada goldenrod via greatly increased invertebrate herbivory), this year at twice the size and with some overlap of fall 2017 haying unit, to provide a range of treatments (2017, 2018, 2017 and 2018) for more robust monitoring; and a deeper analysis of the effect of soil chemistry and atmospheric deposition of nitrogen (as a cause for overabundant Canada goldenrod in the US and China per a recent publication), leading to the development and planning for soil amendment implementation in spring 2019. Canada goldenrod spraying did not occur as planned, due to concerns over the possible effect on the federally endangered rusty patched bumble bee (*Bombus affinis*) documented earlier at this site, and the cost:benefit of spraying. Spraying is still being judiciously considered for spring 2019, along with the re-seeding, conservation haying, and soil amendment approaches.

Because of the value of monitoring, recent development in promising soil approaches based on a recent publication, and judicious pause in spraying implementation, we have requested an Amendment above to effectively lengthen the funding by moving some of the ML2016 funding to ML2017 (separate amendment). Native but overabundant Canada goldenrod (CGR) remains the primary management challenge at this important site; since CGR overabundance is a problem state-wide, allowing us more time to implement a pollinator-friendly solution should have widespread application.

Restoration Evaluations are proceeding, most notably with documenting a high quality restoration at Cedar Creek Conservation Area, which used an alternating forb:grass seeding strip approach. Funds are not being spent as quickly as originally budgeted partly due to the economy of scale with similar funding in the ML 2017 appropriation.

#### **Activity 2 Status as of August 1, 2019:**

Monitoring of different control techniques for overabundant Canada goldenrod and Tall goldenrod continued. Conservation haying continued to show positive results for both 1 year and 2 years of haying, especially in areas that had other species present that could be released. In select areas where the goldenrod had been established longer to the point of eliminating other plant species, the re-seeding process started with more site preparation in advance of spring 2019 seeding. Plans were made for expanding in size the conservation haying practice for fall 2019, as well as more pollinator shrub installation, emphasizing larger stock of aggressive pollinator shrubs. Soil amendments did not show significant enough results to deploy that technique on a large scale; we will continue to investigate and may try a modified approach in the future. For now, conservation haying has become a preferred technique.

Evaluation monitoring did not proceed as robustly as planned. Deliverables are roughly proportional to funds expended on this activity.

#### **Final Report Summary:**

After monitoring and implementing several different approaches including grazing, burning, soil amendments, and conservation haying, the corrective actions at Pilot Knob Hill are showing results and the site is on a trajectory for improved diversity with a reasonable management regime. This work is continuing past this grant period, including updates to the revised management plan based on the results from this growing season. Results found here have a wide application.

Six 'third-year' evaluations were completed. Reports for four sites remain, as data for two sites were lost on a device during beta testing of a mobile survey application. The remaining evaluations are scheduled to be completed during winter and spring 2020. Based on these evaluations, we found a floodplain re-forestation to be challenging (a finding consistent with 'Restoration Evaluations' ML 2013 subd. 04I), while high quality prairie remnant enhancement, and a sand prairie restoration that employed a separate grass and forb strips seeding approach, are doing well.

#### **V. DISSEMINATION:**

##### **Description:**

Greening anticipates periodic reporting through our various electronic media outlets: The Greening monthly e-newsletter (reaches 7,000 - subscribe at [www.greatrivergreening.org](http://www.greatrivergreening.org)); Facebook (1175 likes - Like us on Facebook <https://www.facebook.com/greatrivergreening>); and Twitter (475 followers - Follow us on Twitter <https://twitter.com/greatrivergreen>).

Results of this ninth phase of the Metro Conservation Corridors (MeCC) partnership appropriation will also be shared with colleagues including the seven other organizations in the MeCC partnership; our landowning partners; and other avenues as the opportunity arises.

**Status as of February 1, 2017:**

During fall 2016, the volunteer event at Old Cedar Avenue Bridge was publicized via 9 emails to Greening's e-list (about 8,500 subscribers), Greening's Facebook page (over 1,400 likes), Twitter (nearly 600 followers), a community outreach event (PolliNATION Festival, Sept 11, 2016), and about 280 fliers distributed to community members. This event was part of the National Wildlife Refuge Week activities.

**Status as of August 1, 2017:**

During spring 2017, public volunteer events at Allemansratt Park, Old Cedar Avenue Bridge, Rick Johnson Park, and Westwood Hills Nature Center were publicized via seven emails to Greening's e-list (over 8,500 subscribers), 19 emails to Greening's volunteer supervisor e-list (350 subscribers), updates on Greening's website (approximately 1,500 views per month), four posts to Greening's Facebook page (over 1,400 likes), Twitter activity (over 600 followers), and 17 outreach events (with over 4,600 attendees; over 4,800 digital and hardcopy fliers distributed). Volunteer supervisor event/project packets were distributed at each public and private event (42 event/project packets distributed).

**Status as of February 1, 2018:**

In fall 2017, the Wolsfeld Woods SNA public volunteer event was publicized via posts on Greening's website (approximately 1,500 views per month) and 7 emails to Greening's volunteer supervisor e-list (350 subscribers). In addition, 530 fliers (with Trust Fund acknowledgement) were distributed at service and volunteer fairs to recruit volunteers for summer/fall 2017 events. Twelve volunteer supervisor event/project packets were distributed pre-event and 125 volunteer thank you emails recapping project accomplishments were distributed post-event.

**Status as of August 1, 2018:**

Spring 2018 public volunteer events including the Pilot Knob public event were publicized via posts on Greening's website (approximately 1,500 views per month) and 7 emails to Greening's volunteer supervisor e-list (350 subscribers). In addition, 530 fliers (with Trust Fund acknowledgement) were distributed at service and volunteer fairs to recruit volunteers for spring 2018 events. . A total of 107 volunteers participated in the Pilot Knob event including 18 GRG trained volunteer supervisors who received volunteer supervisor event packets pre-event. Thank you emails recapping project accomplishments were distributed to all volunteers and supervisors post-event.

**Status as of February 1, 2019:**

In the fall of 2018 two private volunteer events were conducted. A total of 48 volunteers and 4 volunteer supervisors participated in the events held at Painters Creek Park. Additionally, several project sites were featured in print and broadcast:

- The Pilot Knob site was featured on a KARE11 broadcast in October
- The Pilot Knob site was also featured in the November 15 issue of GRG's E-New internet magazine (circulation 9,250)
- The Westwood Hills site was cited in the October 15 issue of GRG's E-New internet magazine (circulation 9,250)

**Status as of June 30, 2019:**

In February an article featuring the Allemansratt Park site was published in the February 2019 GRG monthly e-newsletter (circulation 9,250). In June an article featuring the Westwood Hills Nature Center site was published in GRG monthly e-newsletter (circulation 9,250).

In April, GRG partnered with a subcontractor for their powerpoint presentation ‘Hay Now!’ at the 11th Annual Scientific Meeting ‘Cultivating Innovative Restoration Connections in the Midwest’ of the Society for Ecological Restoration Midwest Great Lakes Chapter April 12-14, 2019 at Central College in Pella, Iowa. The meeting was attended by over 200 restoration ecologists. This presentation featured two case studies of conservation haying at Pilot Knob Hill (ML2016) and South Washington Conservation Corridor (ML2015) complete with Trust Fund acknowledgement. GRG is scheduling a time to give the same ‘Hay Now!’ presentation to the Metro Big Rivers partnership. This 68MB powerpoint presentation is available for protected download at <https://greatrivergreening.sharepoint.com/sites/ConservationHAYingDisseminationv3>

**Final Report Summary:**

Over 830 volunteers received active education including results of project, techniques, and answers to specific questions during participation in volunteer restoration/enhancement events.

Emails about these volunteer events were sent over 15 times to our 8500 general subscribers, and over 30 times to our 350 Volunteer Supervisor subscribers who also received a packet of information when they led a small group of general volunteers. All volunteers received follow up thank you emails recapping the project. Events were also posted several times on Twitter, with 600 followers, and at least 6 Facebook posts with 1400-1500 followers. Two website posts with 1500 views per month, featured volunteer events. Over 1300 hard copy fliers, and 4800 hard copy/digital mix of fliers featuring events were distributed at over 20 outreach events. One site was featured on a Kare11 news article. .

To advance the practice of restoration and enhancement, GRG partnered with a subcontractor for their powerpoint presentation ‘Hay Now!’ at the 11th Annual Scientific Meeting ‘Cultivating Innovative Restoration Connections in the Midwest’ of the Society for Ecological Restoration Midwest Great Lakes Chapter April 12-14, 2019 at Central College in Pella, Iowa. The meeting was attended by over 200 restoration ecologists. This presentation featured two case studies of conservation haying at Pilot Knob Hill (ML2016) and South Washington Conservation Corridor (ML2015).

**VI. PROJECT BUDGET SUMMARY:**

**A. ENRTF Budget Overview:**

Budget Category	\$ Amount	Overview Explanation
Personnel:	\$99,730	Staff time for oversight, volunteer events, restoration implementation, procuring services, vegetation monitoring, soil sampling. Project Manager / Ecologist: \$21,000; 12% FTE for 3 years. Grant Management Assistant: \$7,000 5.6% FTE for 3 years. 2 Ecologists: \$20,000; 5.4% FTE each for 3 years. Director of Conservation Programs: \$4,000; 2% FTE for 3 years. Volunteer Manager: \$9,000; 5.7% FTE for

		3 years. Field Coordinator: \$3,000; 3% FTE for 3 years. 3 Restoration Technicians: \$6,500; 3% FTE each for 3 years. Director of Finance: \$8,000; 3.3% FTE for 3 years.
Professional/Technical/Service Contracts:	\$322,425	\$337,515 for habitat restoration/enhancement activities.
Equipment/Tools/Supplies:	\$70,795	\$2,900 for restoration tools. \$72,895 for restoration supplies including seed, plants, mulch, herbicide, fencing.
Travel Expenses in MN:	\$4,950	In-state vehicle mileage
Other: Volunteer Event Supplies	\$11,100	950 volunteers total @≤\$11/volunteer for approved healthy food/beverage, gloves, safety glasses, boot brushes, table/chair/portable toilet rentals, hand tools; plus 5 lg tent rentals @ \$450 each, and 3 overnight security contracted services @ \$200 ea.
<b>TOTAL ENRTF BUDGET:</b>	<b>\$509,000</b>	

**Explanation of Use of Classified Staff:** N/A

**Explanation of Capital Expenditures Greater Than \$5,000:** N/A

**Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation:** 2.6

**Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:** 1.3

**B. Other Funds:**

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
<b>Non-state</b>			
City of Bloomington (cash)	\$ 5,000	\$ 5,000	Bush Lake Park
City of Lilydale (cash)	\$ 8,000	--	Lilydale Bluffs – Project Cancelled
City of Lindstrom (cash)	\$ 10,000	\$ 10,000	Allemänsrätt Wilderness Park
City of Mendota Heights (cash)	\$ 10,000	\$ 10,000	Pilot Knob Hill
City of St. Louis Park (cash)	\$ 20,000	\$ 20,000	Westwood Nature Center II
City of Watertown (cash)	\$ 5,000	\$5,000	Rick Johnson Park
Friends of Wolsfeld Woods	\$ 1,000	\$1,000	Wolsfeld Woods SNA II
Minnehaha Creek Watershed District (cash)	\$ 30,000	\$30,000	Mud Lake, Painters Creek I, II, III
Minnesota Valley Trust (cash)	\$ 15,000	\$ 15,000	Old Cedar Avenue Bridge
Minnesota Valley National Wildlife Refuge / USFWS (in-kind)	\$ 7,000	\$7,000	Old Cedar Avenue Bridge: In-kind labor and materials for woody invasive removal; trails, platforms and facilities.
National Fish and Wildlife Foundation Monarch Conservation Fund 2016	\$4,000	\$200	Pilot Knob Hill, in-kind local milkweed seed
Private Donors, foundations, TBD (cash)	\$10,000	\$9,660	Volunteer Events including materials; Pilot Knob Hill, Wolsfeld Woods II, and Westwood Hills II

General Mills Corporation	\$20,000	\$20,000	Pollinator planting at Westwood Hills Nature Center with volunteers
Union Pacific Railroad	\$ 15,000	\$15,000	Pilot Knob
Volunteers (in-kind)	\$ 24,000	\$25,170	2098 volunteer hours at \$12/hr
<b>State</b>			
MN-DNR SNA Program (in-kind)	\$ 3,000	\$ 1,000	Wolsfeld Woods SNA coordination, invasives control
<b>TOTAL OTHER FUNDS:</b>	<b>\$186,000</b>	<b>\$176,030</b>	

**VII. PROJECT STRATEGY:**

**A. Project Partners:**

Contributing Partners

- City of Bloomington (Bush Lake Park): Non-state funding
- City of Lilydale (Lilydale Bluffs): Non-state funding
- City of Lindstrom (Allemansratt Park): Non-state funding
- City of Mendota Heights (Pilot Knob Hill): Non-state funding
- City of St. Louis Park (Westwood Nature Center II): Non-state funding
- City of Watertown (Rick Johnson Park): Non-state funding
- Minnehaha Creek Watershed District (Mud Lake, Painters Creek): Non-state funding
- Minnesota Valley Trust (Old Cedar Avenue Bridge): Non-state funding
- Minnesota Valley National Wildlife Refuge (Old Cedar Avenue Bridge): Non-state in-kind services
- MN-DNR SNA Program (Wolsfeld Woods SNA): State in-kind services
- Private Donors (tbd): Non-state funding and in-kind services
- Union Pacific Railroad: Non-state funding
- Volunteers (tbd): Non-state in-kind services

Dissemination and Coordination

- Metro Conservation Corridors Partnership (MeCC) organizations: In-kind project development, dissemination.
- Minnesota Land Trust: MeCC Partnership coordination, funded by 2015 Trust Fund allocation.

**B. Project Impact and Long-term Strategy:**

Much of our remaining habitat in the metro area is threatened by conversion, fragmentation, altered hydrology, invasive species, and a public that is spending less time in natural areas. Restoration and management of these habitats is needed now and into the future to retain Minnesota’s natural heritage for generations, protect rare and declining species, protect our clean water, and reconnect habitat corridors. Advancing the practice and techniques for restoration will help to meet the need for effective restoration, now and into the future.

Engaging volunteers in meaningful, appropriate and transferrable outdoor restoration activities on natural areas will allow community members to learn, enjoy, and understand the restoration process, which are key elements for safeguarding our natural treasures through time.

At the site level, maintenance of the restoration becomes the landowner’s responsibility at the end of the grant period. We anticipate seeking future ENRTF funding to return to these projects to perform later evaluations. Opportunities to restore new sites, and subsequent phases covering additional acres/shoreline will likely continue into the future. The mapped Metro Conservation Corridors provide direction as to where our efforts are best focused, while lessons learned from evaluation and corrective actions will contribute to advancing restoration techniques and practices.

**C. Funding History:**

Funding Source and Use of Funds	Funding Timeframe	\$ Amount
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ENRTF M.L. 2009. MeCC V: Restore/Enhance Significant Habitat	7/1/09-6/30/11	\$155,000
ENRTF M.L. 2009. MeCC V - TPL's Critical Land Protection Program (Allemandsatt Park <i>Acquisition</i> Portion)	7/1/09-6/30/11	\$318,000
ENRTF M.L. 2011. MeCC VI: Restoring our Lands and Waters	7/1/11-12/1/14	\$400,000
ENRTF M.L. 2013. MeCC VII: Restoring our Lands and Waters	7/1/13-6/30/16	\$208,000
ENRTF M.L. 2014. Upland and Shoreline Habitat Restoration in the Greater Metropolitan Area	7/1/14-6/30/17	\$300,000
ENRTF M.L. 2015. MeCC VIII: Enhancing Restoration Techniques for Improved Climate Resilience and Pollinator Conservation	7/1/15-6/30/18	\$400,000

### VIII. FEE TITLE ACQUISITION/CONSERVATION EASEMENT/RESTORATION REQUIREMENTS:

#### A. Parcel List:

See Attached

#### B. Acquisition/Restoration Information:

All restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.

Restoration and management plans will, to the extent practical, be consistent with the highest quality conservation and ecological goals for the restoration site. In determining the restoration target community, consideration will be given to soil, geology, topography, historic vegetation, existing conditions, anticipated future conditions, size, and location. Plans will include the proposed timetable for implementing the restoration, including site preparation, establishment of diverse plant species, maintenance, and additional enhancement to establish the restoration; identify long-term maintenance and management needs of the restoration and how the maintenance, management, and enhancement will be financed; and take advantage of the best available science and include innovative techniques to achieve the best restoration. These plans will be stored electronically in project folders.

All restoration projects and habitat improvements will follow the Board of Soil and Water Resources "Native Vegetation Establishment and Enhancement Guidelines" when developing specifications for RFPs and contracts; and developing species lists for contracts, volunteer events, and field staff implementation. Implementation of the latest developments in pollinator habitat management will be achieved by periodically reviewing various species lists, latest research results, and with a current emphasis on early spring food sources, nesting habitat, and identifying and maintaining invertebrate refugia during the restoration process.

Maintenance of the restorations becomes the responsibility of the landowners after the grant period; Greening requires a statement accepting that responsibility to be signed by the landowners.

Greening will continue to give consideration to CCM for restoration activities, particularly their summer youth crews.

Evaluations will be completed at the site of each restoration activity, upon activity completion and three years after completion. Refining Greening's protocol for 'third year' evaluations is central to the purpose of Activity 2. Restorations will be evaluated relative to the stated goals and standards in the restoration plan, current science, and, when applicable, the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. Evaluations will determine whether the restorations are meeting planned goals,

identify any problems with the implementation of the restorations, and, if necessary, give recommendations on improving restorations. The evaluations will focus on improving future restorations.

**IX. VISUAL COMPONENT or MAP(S):** See Attached.

**X. RESEARCH ADDENDUM:** N/A

**XI. REPORTING REQUIREMENTS:** Periodic work plan status update reports will be submitted no later than February 1, 2017, August 1, 2017, February 1, 2018, August 1, 2018 and February 1, 2019. A final report and associated products will be submitted between June 30 and August 15, 2019.

**Environment and Natural Resources Trust Fund  
M.L. 2016 Project Budget**



**Project Title: Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area**

**Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 08g**

**Project Manager: Wiley Buck**

**Organization: Great River Greening**

**M.L. 2016 ENRTF Appropriation: \$509,000**

**Project Length and Completion Date: 3 Years, June 30, 2019**

**Date of Report: October 31, 2019**

<b>ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET</b>	<b>Activity 1 Budget</b>	<b>Amount Spent</b>	<b>Activity 1 Balance</b>	<b>Activity 2 Budget</b>	<b>Amount Spent</b>	<b>Activity 2 Balance</b>	<b>TOTAL BUDGET</b>	<b>TOTAL BALANCE</b>
<b>BUDGET ITEM</b>	<i>Restore Upland, Wetland, &amp; Shoreline Habitat; Engage Volunteers</i>			<i>Advance Restoration Practices with Evaluations and Corrective Actions</i>				
<b>Personnel (Wages and Benefits)</b>	\$92,430	\$86,369	\$6,061	\$7,300	\$4,796	\$2,504	\$99,730	\$8,565
<b>Professional/Technical/Service Contracts</b>								
Habitat restoration/enhancement activities including site preparation, seed installation, earthwork, invasive species control, mowing/haying, grazing services, prescribed burning, planting, watering, fencing, mowing. Vendors TBD (competitive bid process with consideration to CCM).	\$309,925	\$301,322	\$8,603	\$12,500	\$10,962	\$1,538	\$322,425	\$10,141
Erosion control, trail routing and surface improvements at Wolsfeld Woods SNA. Vendor(s) TBD (competitive bid process with consideration to CCM).	\$0		\$0					
Vegetation monitoring for conservation haying/grazing application. Vendor(s) TBD (competitive bid process with consideration to CCM).	\$0		\$0					
<b>Equipment/Tools/Supplies</b>								
Restoration tools: Purchase of personal protective equipment; repair and maintenance of mowers, ATV, UTV, sprayers.	\$2,900	\$2,902	(\$2)	\$250	\$0	\$250	\$3,150	\$248
Restoration supplies: Seed, plants, mulch, herbicide, fencing	\$60,945	\$46,894	\$14,051	\$6,700	\$6,841	(\$141)	\$67,645	\$13,910
<b>Travel expenses in Minnesota</b>								
In-state vehicle mileage to/from sites, meetings, purchases	\$3,450	\$3,408	\$42	\$1,500	\$745	\$755	\$4,950	\$797
<b>Other</b>								
Volunteer Event Supplies: 950 volunteers total @≤\$11/volunteer for approved healthy food/beverage, gloves, safety glasses, boot brushes, table/chair/portable toilet rentals, hand tools; plus 5 lg tent rentals @ \$450 each, and 3 overnight security contracted services @ \$200 ea.	\$11,100	\$9,098	\$2,002				\$11,100	\$2,002
<b>COLUMN TOTAL</b>	<b>\$480,750</b>	<b>\$449,993</b>	<b>\$30,757</b>	<b>\$28,250</b>	<b>\$23,344</b>	<b>\$4,906</b>	<b>\$509,000</b>	<b>\$35,663</b>

**Environment and Natural Resources Trust Fund  
M.L. 2016 Parcel List**

**Project Title:** Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area  
**Legal Citation:** M.L. 2016, Chp. 186, Sec. 2, Subd. 08g  
**Project Manager Name:** Wiley Buck  
**Organization:** Great River Greening  
**M.L. 2016 ENRTF Appropriation:** \$ 509,000  
**Project Length and Completion Date:** 3 Years, June 30, 2019

#	Acquisition or Restoration Parcel Name	Geographic Coordinates Format: [Deg.]° [Min.]' [Sec.]" [Hemis.]		Estimated Cost	County	Site Significance	Activity Description	# of Acres	# of Shoreline Miles	Type of Landowner	Proposed Fee Title or Easement Holder (if applicable)	Status
		Latitude	Longitude									
1.1	Allemands Park I - III	45°23'58.72"N	92°50'42.408"W	\$72,040	Chisago	High quality mosaic of forest and wetland	Woody invasive removal including volunteer event; understory enhancement	36		Municipal		Complete
1.2	Wolsfeld Woods SNA II	45 0' 10.21"	93 34' 14.02"	\$63,760	Hennepin	Primarily Oak Maple Basswood forest	Trail design and improvements to help alleviate sheet erosion; buckthorn control; 2ac oak woodland restoration; garlic mustard reduction and containment; community outreach and engagement.	49		State		Complete
1.3	Westwood Hills Nature Center II	44 58 15.972 N	93 23' 15.15 W	\$74,320	Hennepin	FIN Lake, Maple Baswood, Oak Savanna, Shoreland, Demonstrations, Pollinator Patches	Restoration of Oak Savanna, Shorelands, Maple Baswood Woodland, Demonstrations, Pollinator Patches	13	0.06	Municipal		Complete
1.4	Lilydale Bluffs west of Lilydale Regional Park	44° 54' 37.44" N	-93° 7' 32.50" W	\$850	Dakota	Bluff habitat along Mississippi River	Management plan; steep bluff forest enhancement	0		Public		Not moving forward in this time frame
1.5	Old Cedar Ave Bridge Trailhead	44°49'54.658"N	93°14'37.914"W	\$41,250	Hennepin	Located in the MN River Valley NWR, wildlife habitat	Intensive restoration of highly disturbed site to Native species habitat with emphasis on underserved community engagement, as part of trail master plan.	9		Federal		Complete
1.6	Mud Lake	44°54'0.05"N	93°43'59.087"W	\$5,330	Hennepin	Large wetland complex with surrounding upland	Prairie restoration of old field	1		Watershed District		Complete
1.7	Painters Creek I	44°58'37.399"N	93°40'59.557"W	\$27,680	Hennepin	Sedge meadow, wet prairie, and wet-mesic woodland	Woody invasive removal. Target community to be determined with mgmt plan, due to unique existing conditions, adjacency, and working lands considerations.	14		Watershed District		Complete
1.8	Painters Creek II	44°58'27.209"N	93°41'23.442"W	\$19,140	Hennepin	Oak-maple-basswood forest	Forest and wetland edge restoration.	7		Watershed District		Complete
1.9	Painters Creek III	44°58'34.487"N	93°41'9.775"W	\$25,850	Hennepin	Upland and wetland mosaic; hydrologically connected to Lk Minnetonka. Potential riparian buffer demonstration site for landowner.	Upland and shoreland restoration, cattail management to increase diversity, all with a monitored haying component.	7	0.11	Watershed District		Complete
1.10	Rick Johnson Park	44° 57' 56.1558"	93° 50' 38.763"	\$5,480	Carver	Crow River shoreline site	Shoreland planting incl. volunteer event, for habitat and demonstration, with fishing structures.	0.25	0.08	WMO		Complete
1.11	Bush Lake	44° 50' 24.936"	-93° 22' 52.7154"	\$6,930	Hennepin	Urban lake with high water quality and low shoreline development.	Convert turf to prairie-savanna; install shoreland vegetation incl. volunteer event.	1	0.05	Municipal		Complete
1.12	Minnehaha Creek, Methodist Hospital Easement	44° 55' 52.31" N	93° 21' 53.99" W	\$0	Hennepin	Wetland/Floodplain easement	wetland management	0		Watershed District		Not moving forward in this time frame
1.13	Sunfish Lake Park	44° 59' 58.56" N	092° 53' 50.64" W	\$0	Washington	Oak Wodland enhancement	Invasive species management, tree thinning, coarse woody debris removal	0		Municipal		Not moving forward in this time frame
1.14	Sherburne National Wildlife Refuge	45° 27' 12.816" N	093° 42' 41.94" W	\$107,363	Sherburne	Prairie Enhancement	Prairie interseeding of forbs to increase diversity, habitat value	200		Federal		Complete
2.1	Restoration Evaluations	various	various	\$420	Anoka, Dakota, Hennepin, Isanti, Ramsey, Scott, Washington	Advance restoration practices and techniques, by returning to sites and evaluating restorations	"Third Year" Restoration evaluations on 18 projects from 2011 (MeCC VI) appropriation	0		Public, and Private with Easement		Underway
2.2	Pilot Knob Hill	44°52'54.796"N	93°10'7.336"W	\$22,924	Dakota	Located in big river confluence, in township identified with need for savanna and prairie for SGCN	Revise management plan, implement corrective actions on portions of restoration that are not meeting goals	5		Municipal		Underway, in coordination with ML 2017 project

NOTES: