



Environment and Natural Resources Trust Fund

2021 Request for Proposal

General Information

Proposal ID: 2021-268

Proposal Title: Mississippi River Crew for Forest Resilience

Project Manager Information

Name: Mary Hammes

Organization: Mississippi Park Connection

Office Telephone: (651) 291-9119

Email: mhammes@parkconnection.org

Project Basic Information

Project Summary: Emerald Ash Borer is devastating ash tree populations in the Mississippi National River and Recreation Area. A Mississippi River Crew will build forest resilience and restore lost canopy across jurisdictions.

Funds Requested: \$199,000

Proposed Project Completion: 2023-06-30

LCCMR Funding Category: Small Projects (H)

Secondary Category: Aquatic and Terrestrial Invasive Species (D)

Project Location

What is the best scale for describing where your work will take place?

Region(s): Metro

What is the best scale to describe the area impacted by your work?

Region(s): Metro

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

This is a forest restoration project within the Mississippi National River and Recreation Area, a 72-mile corridor of the Mississippi River that runs through the metropolitan area of the Twin Cities. Through this project, we will support city and county land managers over 1,233 river acres to remove hazardous ash trees that have succumbed to emerald ash borer (EAB) and proactively remove ash in areas that will soon be infested, perform shelterwood removal to create canopy gaps, inventory land with existing ash trees for emerging EAB, and plant 5,000 native trees, shrubs, and understory plants to build species diversity.

MNRRRA is home to more than ½ million ash trees. Of the river's canopy, more than 20% consists of green and black ash. In certain areas, ash cover exceeds 45% of the canopy. Since emerald ash borer (EAB) was discovered in Saint Paul in 2009, cities and counties have struggled to address EAB in park natural areas where erosion, habitat loss, and hazardous trees are all concerning. A Conservation Corps Crew, working in areas prioritized in a National Park Service Forest Management Assessment and local forest management plans, can create impact throughout the critical area corridor that comprises MNRRRA.

What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.

In 2018, Mississippi Park Connection hired a Conservation Corps of MN and IA youth outdoors crew to work exclusively in forested areas within the Mississippi National River and Recreation Area that are most heavily impacted by the loss of ash trees to Emerald Ash Borer. An LCCMR grant would continue the work of this cross-jurisdictional Mississippi River Crew that is focused on building resilience in 1,233 forested acres of MNRRRA during the peak years of infestation. The scale of the loss of canopy cover is overwhelming and cities and counties do not have the capacity to deal with this issue alone. A grant from LCCMR would allow Mississippi Park Connection to hire the Mississippi River Crew to remove hazardous trees, clear shelter wood, remove understory invasive species, and plant at least 5,000 native understory shrubs and trees in order to support local city and county natural resource managers.

Over the two year project period, the crew would work in 23 metro area sites with 12 agencies/organizations to address emerald ash borer and build tree canopy resilience in areas vulnerable to invasive plant species, erosion, and climate change. Volunteers will support each project with in kind time.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

1. Planting of 5,000 trees and shrubs and understory plants in forest understory over two years.
2. Install tree tubes/fencing to protect trees from herbivory.
3. Identify parks that have new EAB infestations within MNRRRA.
4. Enhance or restore 1,233 acres of ash-elm-mixed hardwood forest to create forest resiliency along the Mississippi River.

Activities and Milestones

Activity 1: Planting and maintaining 5,000 native trees, shrubs, and understory plants in forest over two years.

Activity Budget: \$50,000

Activity Description:

Using local plans as well as a National Park Service Forest Management Assessment completed in 2019, we will support cities and counties in planting trees and understory shrubs in areas of high concern that have lost or are losing ash trees to Emerald Ash Borer. Working with volunteers and the Mississippi River Crew, we will plant trees and the crew will follow up with regular watering and maintenance for three years.

Activity Milestones:

Description	Completion Date
Order native trees and shrubs from local nurseries	2023-01-31
Create planting lists in partnership with local cities and counties	2023-01-31
Follow up to water newly planted trees	2023-06-30
5000 native trees, shrubs, and understory plants planted	2023-06-30

Activity 2: Install fencing or tree tubes to prevent herbivory

Activity Budget: \$30,000

Activity Description:

Planting native trees and shrubs in the metro area of Minneapolis and Saint Paul requires protection in the form of fencing or tree tubes to prevent deer, voles, and other herbivores from eating new trees. Installing fencing and tubes and providing maintenance in the first few months after trees have been planted increases tree survival.

Activity Milestones:

Description	Completion Date
Order fencing and tubes	2023-01-31
Calculate need for fencing and tubes based on specific site conditions	2023-01-31
Follow up with site maintenance	2023-06-30
Install Fencing and Tubes	2023-06-30

Activity 3: Restore and enhance 1,233 forested acres effected by Emerald Ash Borer

Activity Budget: \$119,000

Activity Description:

Ground truth the Mississippi National River and Recreation Area forest management assessment to determine areas where high quality habitat can be maintained or created in areas where Emerald Ash Borer has infested or will soon infest the canopy. Prepare sites for tree and shrub planting by removing invasive or weedy understory to create canopy gaps where new and diverse trees can be planted where ash trees once stood. Mississippi River Crew will work on partner land to restore or enhance 1,233 acres of forest canopy. Mississippi River Crew will work with more than 3,000 volunteers that will support this effort with in kind time.

Activity Milestones:

Description	Completion Date
Inventory restoration sites and ground truth management plans	2023-01-31
Mississippi River Crew will restore or enhance 1,233 forested acres	2023-06-30
Collaborate with 12 partners to restore or enhance 23 forested sites	2023-06-30
Coordinate up to 3,000 volunteers over two years	2023-06-30
Remove infested ash trees and invasive species to create gaps in tree canopy	2023-06-30

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Brian Swoboda	Inver Grove Heights	Brian will coordinate with Mississippi Park Connection and Friends of the Mississippi River on work at Heritage Village and Riverside Heights Park. Brian is the Park Superintendent in the City of Inver Grove Heights.	No
Nick Cox and Tess Kelley	Conservation Corps of Minnesota and Iowa	Nick and Tess will recruit, hire, and supervise the Conservation Corps Crew's daily actions and provide trainings, transportation, and tools to complete the project tasks laid out by Mississippi Park Connection. Nick and Tess Manage the Youth Outdoors program at Conservation Corps of Minnesota and Iowa.	Yes
Nancy Duncan	National Park Service	Nancy is the Natural Resources Manager at the Mississippi National River and Recreation Area. She will advise and provide support for project oversight and help translate the National Park Service's Forest Management Assessment to the other agency partners. She will also direct activities on NPS islands on the Mississippi River.	No
Alex Roth and Karen Schik	Friends of the Mississippi River	Alex and Karen manage restoration at several sites where the Mississippi River Crew will work: Riverside, Heritage Village, Settler's Island, Hastings River Flats, River Heights, and Pine Bend Bluffs. As trained ecologists, they provide needed oversight and project planning.	No
Nick Bartels	DNR - Fort Snelling State Park	Nick will oversee shelterwood tree removals and understory plantings at Fort Snelling State Park. Nick is the assistant manager of FSSP.	No
Becca Tucker	Great River Greening	Great River Greening will collaborate on projects at Crosby Farm Regional Park and Victoria Park in Saint Paul by providing volunteer coordination and additional plant materials. Becca Tucker is a Program Manager at Great River Greening	No
Emily Dunlap	Maplewood	This project will ensure the successful establishment tree plantings and increase the resiliency of existing woodlands at Maplewood's Fish Creek Preserve. The 70-acre preserve is a combination of remnant and planted prairies and woodlands. Emily is a natural resources coordinator at the City of Maplewood.	No
Charlie Lehn	City of Champlin	Charlie is the Parks and Facilities Manager in Champlin. He will coordinate with Mississippi Park Connection to direct the activities of the crew when they are working in the City of Champlin's Galloway Park to remove woody understory invasive species and plant native understory plants.	No
Maggie Barnick	Saint Paul Parks and Recreation	The Mississippi River Crew will support SPPR in managing forests and building resiliency and diversity at Henry Park, Hidden Falls-Crosby Farm Regional Park, Indian Mounds Park, Lilydale Regional Park, and Cherokee Park. Maggie Barnick is a natural resources technician for the city and will oversee the tree work and plantings.	No
David Woods	Urban Roots	Urban Roots maintains a gravel bed tree nursery at their Rivoli site where they grow robust trees for the Willowbrook site. The Mississippi River Crew would remove infested ash and plant understory shrubs and trees grown in the nursery. David is the natural resources manager.	No
Missy Anderson	Three Rivers Park District	Missy oversees the adopt a woodlot program at Gateway Park.	No
Scott Haugen and Chris Klatt	Dakota County	Dakota County will oversee the crew during days at Spring Lake Park and in areas along the Mississippi River Greenway Bicycle Trail. Activities planned for the crew include planting trees and understory plants, removing invasive garlic mustard and buckthorn, and surveying areas to determine presence of EAB.	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?

5/18/2020

Emerald Ash Borer creates a "death curve" with the majority of trees dying between six and eight years after they have been infested. In the Twin Cities Metro Area, the first infestation was reported in Saint Paul in 2009 and began spreading geographically. The next five years will be critical to the long-term health of the ash-mix hardwood forest. By acting now, less future funding will be needed as the forest becomes more resilient. Long-term, we will leverage public-private partnerships and continue to work with volunteers.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Mississippi National River and Recreation Area Forest Restoration	M.L. 2019, First Special Session, Chp. 4, Art. 2, Sec. 2, Subd. 05c	\$199,000

Project Manager and Organization Qualifications

Project Manager Name: Mary Hammes

Job Title: Environmental Stewardship and Volunteer Manager

Provide description of the project manager’s qualifications to manage the proposed project.

Mary has been the Environmental Stewardship and Volunteer Manager with Mississippi Park Connection since 2015. She coordinates with local governmental and non-profit partners to facilitate natural resource project coordination between the 26 communities within the corridor the Mississippi National River and Recreation Area (MNRRA), a national park unit that runs for 72 miles along the Mississippi River through the Twin Cities metropolitan area. Mary also coordinates forest management planning in partnership with the National Park Service, administers grants, and hires and supervises summer seasonal positions at MPC, and co-manages a volunteer program that engages more than 5,000 each year.

Work Experience:

- 2015 – present Environmental Stewardship and Volunteer Manager, Mississippi Park Connection
- 2014 – 2015 Minnesota Pollution Control Agency, TMDL Liaison for Stormwater Program
- 2013 – 2014 Minneapolis Park and Recreation Board, Water Quality Educator
- 2009 – 2012 Conservation Corps of Minnesota and Iowa, Field Specialist/Crew Leader

Education:

- 2014 MS in Natural Resource Science and Management, University of Minnesota
- 2007 BA in Psychology from University of Wisconsin

Project Manager Responsibilities:

As the Project Manager, Mary will provide overall project direction, budget management, supervision of field efforts for MPC. As the Environmental Stewardship and Volunteer Manager, Mary has demonstrated her ability to manage budgets, direct staff, coordinate with partners, and efficiently and effectively deliver project outcomes.

Organization: Mississippi Park Connection

Organization Description:

The mission of Mississippi Park Connection is to strengthen the enduring connection between people and the Mississippi River by enriching the life of the river and the lives of all who experience our national park, the Mississippi National River and Recreation Area. Since 2007, MPC has enabled the park to lead environmental stewardship efforts throughout the corridor, from wildlife monitoring to shoreline restoration. The National Park Service provides the leadership to bring together the many organizations in our community dedicated to specific facets of the Mississippi River. By providing support for the park and its partners, Mississippi Park Connection boosts the activities of all of the park’s partners,

thereby increasing community engagement in the Mississippi River watershed and improving wildlife habitat and the ecological value of the river.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Mary Hammes		Environmental Stewardship and Volunteer Manager			12%	0.2		\$15,000
							Sub Total	\$15,000
Contracts and Services								
Conservation Corps of Minnesota and Iowa	Professional or Technical Service Contract	The Conservation Corps of Minnesota and Iowa will perform the majority of the field work related to this project with a Youth Outdoors Crew, with oversight from Mary Hammes and in partnership with groups of volunteers. They will also provide training, tools, and transportation for the crew.				0		\$162,500
							Sub Total	\$162,500
Equipment, Tools, and Supplies								
	Tools and Supplies	Tree Tubes and Fencing	Tree Tubes and Fencing will provide herbivory protection for new trees planted					\$5,000
	Tools and Supplies	Planting Supplies (eg. mulch)	This funding will provide supplies for planting trees/shrubs/plants.					\$1,500
							Sub Total	\$6,500
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								

							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		Native trees and Shrubs and Understory Plants	Native trees, shrubs and understory plants will be planted along the Mississippi River.					\$15,000
							Sub Total	\$15,000
							Grand Total	\$199,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
In-Kind	3,000 Volunteers will provide 9,000 volunteer hours. Calculated at the Independent Sector rate of \$25.43/hour. This time is worth: \$228,870.	Volunteers will support all activities to reach the stated milestones listed in this project. Their time will enhance and support the project's ecological outcomes.	Potential	\$228,870
Cash	National Park Service Service Wide Comprehensive Call Grant.	This funding would supplement funds to pay for additional Conservation Corps Crew Time during the 2 year grant period and also support additional tree and shrubs plantings.	Pending	\$164,848
Cash	3M Grant	This grant provides match for the crew and trees/shrubs/tubes.	Secured	\$50,000
Cash	Mortenson Family Foundation	Support for plantings and understory	Secured	\$3,500
			Non State Sub Total	\$447,218
			Funds Total	\$447,218

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
Cherokee Park	Ramsey	Mesic oak-basswood forest and wet-mesic hardwood forest near residential area.	Restoration	61	-	\$4,500	Public		Has not begun
Coldwater Spring and V.A. Property	Hennepin	Culturally significant and popular recreation site with ash and forest cover.	Restoration	18	-	\$4,500	Public		Has not begun
Crosby Farm Regional Park	Ramsey	Popular park with lots of emerald ash borer infestation. Floodplain forest of Mississippi River.	Restoration	210	6	\$15,000	Public		Has not begun
Fish Creek Natural Area	Ramsey	This project will increase the resiliency of the natural woodlands on the site.	Restoration	4	-	\$4,500	Public		Has not begun
Galloway Park	Hennepin	A forested area along the Mississippi River is a public park with ash trees.	Restoration	25	0.5	\$8,500	Public		Has not begun
Gores - WMA (Hastings River Flats)	Dakota	High quality habitat along the Vermillion River.	Restoration	175	-	\$3,000	Public		Has not begun
Henry Park	Ramsey	Project site is near confirmed emerald ash borer infestations.	Restoration	29	-	\$4,500	Public		Has not begun
Heritage Village	Dakota	The project tasks focus on native tree and shrub planting in a floodplain forest.	Restoration	3	-	\$6,000	Public		Has not begun
Hidden Falls Park	Ramsey	Popular park with lots of emerald ash borer infestation. Floodplain forest of Mississippi River.	Restoration	59	3	\$6,000	Public		Has not begun
Indian Mounds Park	Ramsey	Culturally significant indigenous site. Work would happen in forested areas of park.	Restoration	60	-	\$8,000	Public		Has not begun
Lilydale Regional Park	Ramsey	Popular park with lots of emerald ash borer infestation. Floodplain forest of Mississippi River.	Restoration	54	4	\$12,000	Public		Has not begun
Mendota Heights	Dakota	EAB was discovered in Mendota Heights in May of 2015. Project would support canopy.	Restoration	4	-	\$16,000	Public		Has not begun
Mississippi River Gateway	Hennepin	Site is going through a master plan update. This project focuses on forested areas.	Restoration	10	2	\$6,000	Public		Has not begun

Mississippi River Greenway	Dakota	This popular route of the Mississippi River Bike Trail has hazard ash and invasives.	Restoration	20	2	\$25,000	Public		Has not begun
Nicollet Island	Hennepin	Very popular location and one of the few forested acres on river in Minneapolis.	Restoration	10	1	\$4,500	Public		Has not begun
Pike Island at Fort Snelling State Park	Dakota	Significant floodplain forest devastated by EAB. Culturally significant in Minnesota and Dakota history. Popular urban state park.	Restoration	107	5	\$10,000	Public		Has not begun
Pine Bend Bluffs (Rocket)	Dakota	This is a part of the Scenic and Natural Area	Restoration	4	-	\$4,500	Public		Has not begun
River Heights	Dakota	A new park established by the City of Inver Grove - a lot of ash trees and wildlife.	Restoration	16	-	\$12,000	Public		Has not begun
Riverside Park	Washington	Wooded area of park needs understory restoration	Restoration	20	-	\$6,000	Public		Has not begun
Settler's Island	Dakota, Washington,	A new stop on a national water trail - significant habitat for migratory waterfowl.	Restoration	3	1	\$8,000	Public		Has not begun
Spring Lake Park and Surrounding	Dakota	A public park home to endangered rusty patch bumble bee in need of forest restoration.	Restoration	300	-	\$18,000	Public		Has not begun
Victoria Park	Ramsey	Site of significant new tree planting	Restoration	21	-	\$4,500	Public		Has not begun
Willowbrook Park Reserve	Ramsey	A 70 acre lowland forest and wetland that is on the MN DNR's Central Region Headquarters campus.	Restoration	20	-	\$8,000	Public		Has not begun
Totals				1,233	24.5	\$199,000			

Restoration

1. Provide a statement confirming that all restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.

All lands within this application are on public lands owned and managed by the cities and/or counties mentioned in the project collaborators section of this application.

2. Summarize the components and expected outcomes of restoration and management plans for the parcels to be restored by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation.

We work in partnership with the Mississippi National River and Recreation Area. A Forest Management Assessment was completed in 2019 that identified areas of concern due to the rise of emerald ash borer. GIS map layers overlaid with a vegetation survey completed by USGS in 2015 highlight areas of highest concern. We track parcel data in GIS maps using ARC collector and also store information regarding project completion in shared drives between the National Park Service, Mississippi Park Connection and our project partners.

3. Describe how restoration efforts will utilize and follow the Board of Soil and Water Resources “Native Vegetation Establishment and Enhancement Guidelines” in order to ensure ecological integrity and pollinator enhancement.

Every project listed in this application falls within the DNR State Critical area along the Mississippi River which also is a national park, the Mississippi National River and Recreation Area. Restoration projects are completed in collaboration with the local public land owner (city/state) and reviewed by the National Park Service, which collaborates with the state to ensure compliance with the BSWR guidelines for Native Vegetation Establishment and Enhancement.

4. Describe how the long-term maintenance and management needs of the parcel being restored with these funds will be met and financed into the future.

Volunteers are an integral part of our program and will provide substantial labor in the completion of these projects. Engaging volunteers during the establishment phase of plantings can inspire long-term care for the projects. In addition to volunteers, we can leverage the National Park Service for additional staff time and funding as well as seek private sources of funding - such as our long-term funder 3M Foundation.

5. Describe how consideration will be given to contracting with Conservation Corps of Minnesota for any restoration activities.

If awarded, the funding from this grant will primarily consist of a contract with CCMI to support many land owners and partners in addressing forest canopy issues related to Emerald Ash Borer.

6. Provide a statement indicating that evaluations will be completed on parcels where activities were implemented both 1) initially after activity completion and 2) three years later as a follow-up. Evaluations should analyze improvements to the parcel and whether goals have been met, identify any problems with the implementation, and identify any findings that can be used to improve implementation of future restoration efforts at the site or elsewhere.

The Mississippi River Crew will collect baseline data at each site before work begins and immediately following the work - partners working with us will provide follow up three years after implementation. We will also use volunteer support to both establish the baseline, the immediate findings, and longer-term evaluation. Working with partners, we will set up protocols for volunteers to continue to monitor sites after the grant period is over.

Attachments

Required Attachments

Map

File: [b76a2acb-5b2.pdf](#)

Alternate Text for Map

This is a map of the project sites that fall within the Mississippi National River and Recreation Area where forest resiliency work will take place and the Mississippi River Crew will work.

Financial Capacity

File: [80faa947-0cf.pdf](#)

Board Resolution or Letter

Title	File
Board Resolution - Mississippi Park Connection	cc9d90d8-8a9.pdf

Optional Attachments

Support Letter or Other

Title	File
City of Champlin Partner Letter	8de7f215-fee.pdf
City of Maplewood Partner Letter	46ef5705-522.pdf
Fort Snelling State Park Partner Letter	8eabd429-141.pdf
Friends of the Mississippi River Partner Letter	77fa4c82-26e.docx
Great River Greening Partner Letter	980adfe1-e66.docx
City of Inver Grove Heights Partner Letter	a62d993e-e23.pdf
Mississippi National River and Recreation Area Partner Letter	99adae21-66e.pdf
Urban Roots Partner Letter	2cd0a43b-a77.pdf
Mendota Heights Partner Letter	2a6ae4cd-efe.docx
Conservation Corps Letter of Support	b10aef4b-ec2.pdf
Dakota County Parks Partner Letter	f9c747fa-5be.docx

Administrative Use

Does your project include restoration or acquisition of land rights?

Yes: Restoration,

Does your project have patent, royalties, or revenue potential?

No

Does your project include research?

No

Does the organization have a fiscal agent for this project?

No

Miss River Forest Resilience

Work Site Locations



Mississippi River Greenway
Planting



Cherokee Regional Park



Crosby Farm Regional Park



Mendota Heights



Fish Creek Bluff Preserve



Donie Galloway Riverside Park



Spring Lake Park Reserve



Hastings River Flats



Henry Park



Heritage Village Park



Hidden Falls Regional Park



Lilydale Regional Park



Indian Mounds Regional Park



Mississippi River Greenway
Ash



Nicollet Island



Pine Bend Bluffs Scientific
and Natural Area (SNA)



Pike Island



Riverside Park



River Heights Park



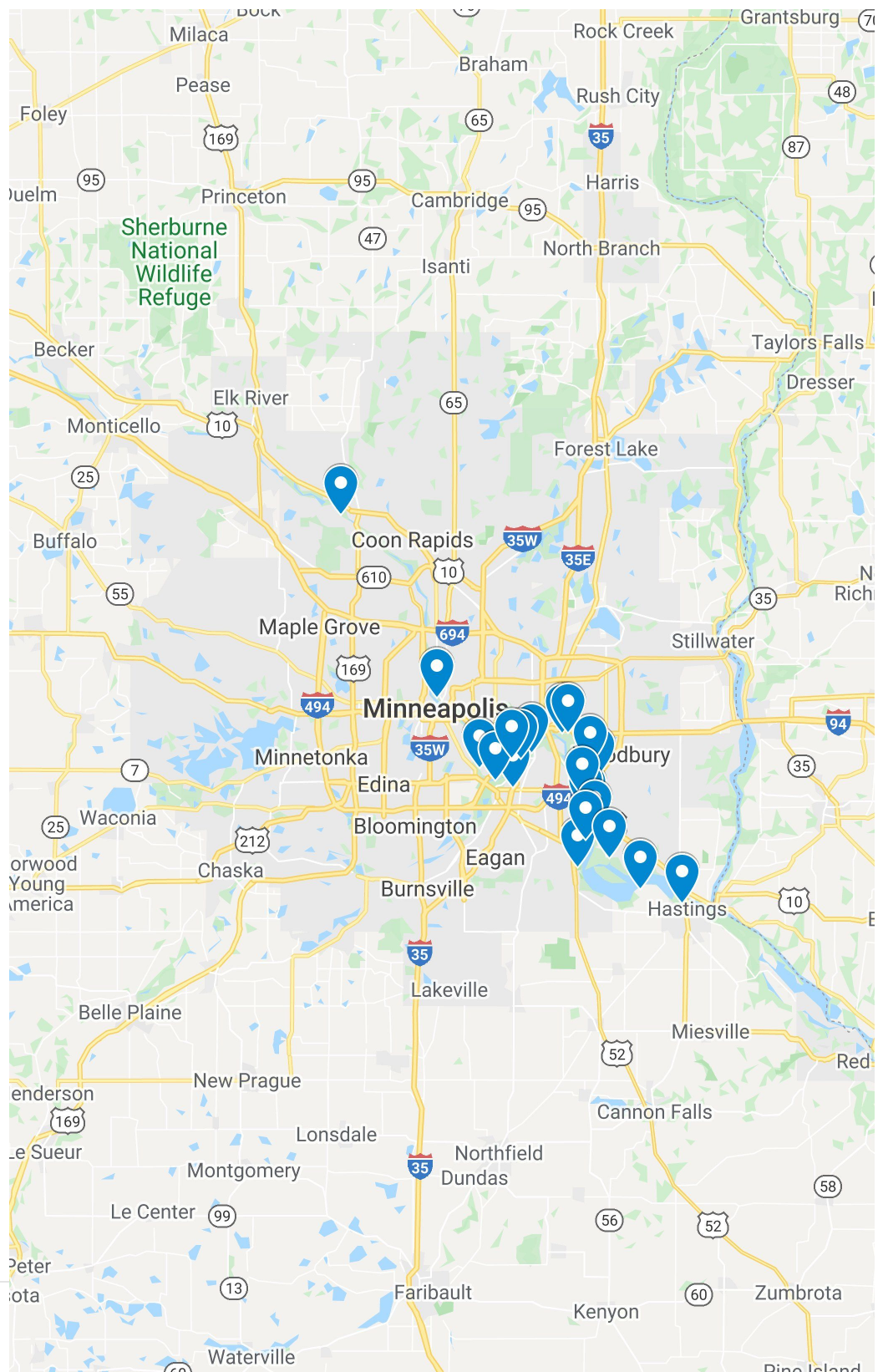
Settler's Island



Victoria Park



Willowbrook



This is a map of project areas where the Mississippi River Crew will build forest resiliency through targeted removal and native plantings.