



Environment and Natural Resources Trust Fund

2021 Request for Proposal

General Information

Proposal ID: 2021-320

Proposal Title: Restoring Land, Reviving Heritage: Conservation Through Indigenous Culture

Project Manager Information

Name: Katie Bloome

Organization: Belwin Conservancy

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Project Basic Information

Project Summary: By linking natural resource management, cultural heritage, and environmental education, we aim to restore an ecologically significant area of land while fostering multi-generational environmental stewardship and restoration of Indigenous culture.

Funds Requested: \$494,000

Proposed Project Completion: 2023-06-30

LCCMR Funding Category: Environmental Education (C)

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.

Belwin owns and protects nearly 1,500 acres of land near the Twin Cities and reaches over 2,000 people through programs and e-newsletters. Anishinabe Academy is a K-5 Minneapolis Public School focused on Dakota and Ojibwe culture and language.

While Belwin has an abundance of land, many urban Indigenous communities have lost their connection to nature and their food heritage. The Anishinabe Academy community is seeking a place where families can gather to experience cultural events, learn about traditional ways, and grow sacred medicines and food. Currently, the school is using a small courtyard, inadequate for accomplishing their goals.

The parcel of land included in this proposal includes 600 feet of Valley Creek, a DNR trout stream formed by spring-fed ponds that empty into the National Wild and Scenic St. Croix River less than one mile away. Valley Creek is one of the best trout producing streams in the State of Minnesota and Valley Creek watershed is home to more than 20 endangered, threatened, and special concern species. The habitat currently surrounding this stretch of stream is degraded forest and grassland with many invasive species present. By restoring this land, we will increase the quality of this significant stream.

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.

This project aims to deepen both organizations' knowledge of land management while restoring an ecologically significant area and recovering this Indigenous community's access to nature.

To accomplish this, we will bring together land restoration experts, Belwin staff, and the school community to design and implement our restoration project. The partners will work together to restore the woodland and prairie incorporating Indigenous ways with Belwin's restoration practices. This restoration will contribute to better water quality in Valley Creek and healthier wildlife habitat. This partnership approach to restoration will instill an action-based environmental stewardship ethic in participants.

Restoration efforts will be paired with field trips led by Native elders and experts in ecology. Students and families from Anishinabe Academy will come to Belwin throughout the two-year period to study ecosystems, participate in land restoration, learn about cultural heritage, experience the bison herd and tallgrass prairie, and collect samples for lessons back at their school. The school community will also cultivate a garden with sacred foods and medicines using Native American traditions.

During and after this two-year program, Anishinabe Academy will have long-term influence over this parcel of land at Belwin with the ability to visit and conduct programming anytime.

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?

By linking natural resource management, cultural heritage, and environmental education, Belwin Conservancy and Anishinabe Academy aim to restore an ecologically significant area of land, while fostering multi-generational environmental stewardship and restoration of Indigenous culture.

If funded, this project will:

- Improve habitat quality in Valley Creek and the surrounding watershed
- Foster a multi-generational and action-based conservation ethic in urban Indigenous families

- Create a deeper understanding of cultural heritage through a Native garden site
- Connect the communities that Belwin and Anishinabe Academy serve so they can learn from each other with the common goal of long-term care of the land and water

Activities and Milestones

Activity 1: Anishinabe Academy Education Partnership

Activity Budget: \$215,700

Activity Description:

Students and families from Anishinabe Academy will participate in field trips to Belwin to learn about ecology, participate in land restoration, connect to the land through a Native cultural lens, and cultivate a Native garden site. During field trips, participants will learn about Native garden principles, astronomy, ecology, scientific measurements, STEM concepts, Indigenous traditions, and land-management principles, all with the help of Ojibwe and Dakota language experts. One example of this is a lesson based on the herd of bison that grazes Belwin’s prairie each summer. Families will connect the cultural significance of the animals to the ecological benefits they give to the prairie ecosystem. Another example is the assessment of the health of the soil and water before establishing a Native garden site.

Curriculum experts and teachers at Anishinabe Academy will tie these lessons to MN state science, math, and social studies standards and incorporate them into yearly curriculum in the classroom. We will measure outcomes through teacher assessment of students, pre- and post- surveys of students, tracking participation numbers in family field trips, and through talking circles that explore Tribal history, culture, values, and practices.

Activity Milestones:

Description	Completion Date
Curriculum related to activities at Belwin will be incorporated into classroom lessons and standards.	2022-06-30
Students and families will gain deeper insight of cultural heritage, measured through pre/post surveys.	2023-06-30
Families will show a commitment to environmental stewardship through participation in garden and restoration efforts.	2023-06-30
Students will demonstrate understanding of habitat concepts: native vs. invasive species, soil/water quality, and biodiversity.	2023-06-30

Activity 2: Habitat Restoration

Activity Budget: \$263,300

Activity Description:

The 17-acre parcel of land we will restore is situated along 600 ft. of Valley Creek, identified in Minnesota’s State Wildlife Action Plan as a “Key River Reach.” Valley Creek is one of only a few trout streams in Minnesota that has a naturally reproducing population of Brook, Brown and Rainbow Trout. The Valley Creek watershed is home to more than 20 endangered, threatened, and special concern species.

This land around this portion of the creek is severely degraded with a high density of buckthorn and other invasive species. Restoring the land to tallgrass prairie and floodplain forest will promote species diversity and reduce erosion and runoff into Valley Creek and the downstream St. Croix River.

We will begin by removing 100% of non-desirable species. Then, we will plant and seed native species and provide management to keep invasive species from returning. We will evaluate restoration areas with photo points, plant diversity and density measurements, and soil and water sampling. We will take a partnership approach to restoration that follows modern scientific standards as well as traditional Indigenous ecological knowledge. We anticipate both Belwin and the school community will learn about and improve practices.

Activity Milestones:

Description	Completion Date
Prairie site prep and seeding	2022-06-30
100% reduction in buckthorn/undesirable trees and woody shrubs	2022-06-30
Follow-up woodland treatments and invasive regeneration removal	2023-06-30
Follow up prairie establishment and invasive species removal	2023-06-30
Install 250 native plants/acre in woodland	2023-06-30

Activity 3: Valley Creek Stream Restoration Assessment**Activity Budget:** \$15,000**Activity Description:**

The stretch of Valley Creek that runs through the site is degraded, with consequences for downstream water quality and flowage into the St. Croix River. Before embarking on larger stream restoration efforts, we will contract with an environmental engineering firm to do a full assessment of stream stability, agency requirements, permitting needs, and environmental review needs.

The exceptional habitat of Valley Creek has been identified in Minnesota’s State Wildlife Action Plan as a “Key River Reach.” Valley Creek is one the few trout streams within the Twin Cities Metropolitan Area that has a naturally reproducing population of Brook Trout, the only trout species native to Minnesota. In addition, Valley Creek sustains large populations of Brown and Rainbow Trout. Valley Creek’s trout populations maintain themselves through natural reproduction. The Valley Creek watershed is home to more than 20 endangered, threatened, and special concern species, including the American Brook Lamprey, the Hooded Warbler, Blanding’s Turtle, and Karner Blue Butterfly. The Creek also appears to be home to a species of crane fly (genus Phantolabis) previously undescribed by science. Valley Creek outlets into the St. Croix River, one of the world’s premier mussel habitats with 41 different species identified.

Activity Milestones:

Description	Completion Date
Stream restoration evaluation and assessment complete	2021-10-31

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Laura Sullivan, Principal	Anishinabe Academy	Anishinabe Academy is a Minneapolis Public School that serves primarily Dakota and Ojibwe students. They exist to engage urban Indigenous students by integrating and reclaiming Native American identities, cultures and languages through authentic academic experiences. Our partnership began in 2018 and we hope to expand it with this program.	Yes

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?

Together with Anishinabe Academy, Belwin will continue to manage the restored land to maintain appropriate plant diversity and low occurrence of invasive species. These costs will be absorbed into Belwin's annual budget and/or funded through other grants. Education programs with Anishinabe Academy will continue, funded by the school and other grantors, including state and federal funds available for Indigenous-focused public school programming.

Project Manager and Organization Qualifications

Project Manager Name: Katie Bloome

Job Title: Executive Director

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

Katie Bloome joined Belwin Conservancy as Executive Director in July, 2018. In her 15-year career in nonprofit management, she has focused her work on developing environmental education programs, and fundraising. Katie's career includes time spent managing programs for the Audubon Center of the North Woods, YMCA Camp St. Croix, and Minnesota Public Radio. Katie has successfully managed grant projects funded by private foundations, individuals, and State agencies. Along with project partners, she has created and grown programs that focus on incorporating state standards into environmental education curriculum, outdoor education programs for specific communities, and mid-level donor funding. She will manage this project in close collaboration with Belwin's Operations Director, an experienced land and restoration manager, Belwin's Program Director, and in close partnership with Anishinabe Academy. Katie has a B.A. in Biology from Grinnell College and a Certificate in Environmental Education from Hamline University.

Organization: Belwin Conservancy

Organization Description:

Belwin Conservancy's mission is to inspire our connection to the natural world. We have a 49-year history of conservation and restoration of native habitats, youth and adult environmental education, and partnerships with community organizations. Together with our most long-standing partner, Saint Paul Public Schools, Belwin serves approximately 10,000 3rd and 5th grade students each year for hands-on outdoor science studies.

Belwin owns nearly 1,500 acres of land in the Valley Creek and St. Croix River watersheds. Belwin models best practices in conservation and works to protect the watershed through restoration on our own holdings and educating private landowners about best practices in managing land.

Belwin provides 7.5 miles of open hiking trails and also offers community programs focused on natural history, ecology, and the integration of the arts, culture, and ecology. Belwin's long-term organizational partners include the Minnesota

Land Trust, Minnesota Astronomical Society, NorthStar Bison, St. Croix Valley Athletic Association, St. Croix Soccer Club, and Saint Paul Public Schools.

Belwin Conservancy is a 501 (c)3 funded through a combination of grants, individual donations, earned income, and endowment. Belwin is located in Washington County in the towns of West Lakeland and Afton, MN.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Partnership Coordinator		Coordinate and develop education program			29%	2		\$140,400
Program Director		Oversee Partnership Coordinator and run programs associated with education partnership			25%	0.1		\$9,300
Operations Director		Oversee and conduct habitat restoration			15%	0.1		\$8,500
Land Assistant/Specialist		Land restoration			26%	0.2		\$10,800
							Sub Total	\$169,000
Contracts and Services								
TBD	Professional or Technical Service Contract	Survey of land borders to be done before restoration work begins.				0.1		\$10,000
TBD	Professional or Technical Service Contract	Woodland Restoration. Initial cutting and follow up sprays/plant removal.				1		\$105,000
TBD	Professional or Technical Service Contract	Woodland planting activities.				0.5		\$90,000
TBD	Professional or Technical Service Contract	Assessment of restoration need of Valley Creek stream running through the property.				0.1		\$15,000
TBD	Professional or Technical Service Contract	Prairie restoration activities.				0.4		\$39,000
TBD	Professional or Technical	Create, design, and print interpretive signs for restoration areas, garden area, natural history, and cultural history.				0.1		\$6,000

	Service Contract							
TBD	Professional or Technical Service Contract	Educational programming by Native elders, cultural experts, and Native garden/ecology experts.				0.2		\$16,000
Anishinabe Academy	Sub award	Anishinabe Academy teaching staff to facilitate summer learning and field trips. This is a single source contract because these teaching staff will be tied to the project in the school year. Continuity through the summer will provide the best educational experience.				0.4		\$20,000
							Sub Total	\$301,000
Equipment, Tools, and Supplies								
	Tools and Supplies	Field supplies related to measuring water/soil/air quality.	Teaching ecology and STEM concepts in the field					\$4,000
	Tools and Supplies	Garden tools (rakes, shovels, wheelbarrows, etc.)	Teaching garden principles to students. Garden installation and upkeep.					\$2,000
	Tools and Supplies	Tribal varieties of plants and seeds	Planting in the garden and surrounding areas. Must use heirloom tribal varieties for cultural education.					\$4,500
	Equipment	Rental tiller for garden	Till and install garden. Would rent for one day each year for two years.					\$600
	Tools and Supplies	Dumster	Site cleanup, removal of debris from immediate educational areas.					\$1,400
							Sub Total	\$12,500
Capital Expenditures								
		Fencing and signage	Marking borders of property for safety and security.					\$5,300
							Sub Total	\$5,300
Acquisitions and Stewardship								
							Sub Total	-

Travel In Minnesota								
	Other	Buses	Field trip transportation from Anishinabe Academy to Belwin Conservancy. 8 trips per year for two years, \$300/bus.					\$4,800
							Sub Total	\$4,800
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		Soil and water test kits sent out for analysis.	Educational value and assessment of soil for garden.					\$1,400
							Sub Total	\$1,400
							Grand Total	\$494,000

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				
Cash	Shakopee Mdewankaton Sioux Community	Curriculum development for Anishinabe Academy field trips and classroom work.	Potential	\$10,000
Cash	Minneapolis Educator Leadership Grant	Supplementing cost of field trips, program supplies, and instruction experts. This is the remaining amount of funding already secured by Anishinabe Academy. We had plans to spend this school year, but are unable to since field trips are canceled through the end of the 2019-2020 school year. We are waiting to hear if we can extend to the 2020-2021 school year.	Pending	\$7,000
Cash	NorthFace Foundation	General field trip use - supplies, instruction, etc.	Pending	\$10,000
In-Kind	Belwin Conservancy	Admin costs associated with running this program. Two staff at 3% FTE for 2 years.	Secured	\$11,500
In-Kind	Anishinabe Academy	Admin costs associated with running this program. Two staff at 2% FTE for 2 years.	Secured	\$10,000
In-Kind	Anishinabe Academy	Curriculum Development. One staff at 3% FTE for 2 years.	Secured	\$6,300
In-Kind	Anishinabe Academy	Licensed Teachers to supervise field trips and do classroom instruction. Two staff at 5% FTE for 2 years.	Secured	\$21,400
In-Kind	Anishinabe Academy	Food for field trips. Provided out of general operating money from the school or through another grant if secured.	Secured	\$1,800
			Non State Sub Total	\$78,000
			Funds Total	\$78,000

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
Valley Creek (VC) 9 and 10	Washington	Floodplain forest, upland forest, prairie, and trout stream. Land is situated on a stretch of Valley Creek, a regionally significant trout stream with spawning brown, rainbow, and brook trout.	Restoration	17	0.12	\$263,300	Private	Parcel would stay under Belwin Conservancy ownership.	Has not begun
Totals				17	0.12	\$263,300			

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 restoration activities completed with these funds will occur on land permanently protected by a conservation easement. Belwin has many permanently protected areas. The area we are proposing to restore is protected under a conservation easement with the Minnesota Land Trust.

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.

This restoration parcel is divided into three main categories, the stream bed, the floodplain forest, and the upland prairie site.

The stream bed is in need of a full engineering and regulatory evaluation to determine if there is a need for restoration. The evaluation will include a review of the regulatory floodplain in the area and a field assessment of stream stability. It will take into account how the proposed upland restoration may affect overall stream stability, as well as agency requirements, permitting needs, and environmental review needs. This evaluation will give us planning level costs and a timeline and a summary of how stream restoration could achieve our goals of improving the overall stream habitat.

The woodland area has been heavily invaded by buckthorn. We will begin restoration with the removal of all unwanted and invasive species. We will follow the initial removal with planting of native and desirable species at a density of 250 plants per acre. After the initial invasive populations are under control, the long-term management of the woodland area will be accomplished primarily through spot-treating or hand-removing invasive species.

Expected outcomes for restoration of the woodland area are:

- Maintain and promote canopy trees such as tamarack, red maple, hackberry, basswood, silver maple, black ash and cottonwood
- Maintain less than 25% cover of woody invasive species and 10% herbaceous invasive species
- Promote an understory composed of appropriate southern terrace forest shrubs, grasses, sedges and forbs

The proposed prairie area currently consists of mowed turf and planted evergreen trees. To establish and maintain the upland prairie, we will first clear unwanted woody and herbaceous vegetation. We will use mechanical removal methods where possible to reduce the amount of herbicide treatment needed. After the initial site preparation in the summer/fall, we will seed and plant in the spring. For the first growing season, we will mow the vegetation to keep it at a height of three inches. During the second growing season, we will mow, hand pull, and spot treat as needed to remove invasive species. As the native plants are more established in years three, four, or five (outside of the timeline of this grant), we will also incorporate prescribed burning into our management plan.

Expected outcomes for the restoration of the prairie area are:

- Maintain cover of warm season grasses such as big bluestem, Indian grass, little bluestem, switchgrass and side oats grama
- Promote at least 10% cover of appropriate southern mesic prairie forbs to enhance species richness
- Maintain less than 10% cover of woody invasive species and less than 25% cover herbaceous invasive species

Belwin Conservancy has land management plans for all of our 1,500 acres. These plans are based on the needs of each parcel and are kept both electronically and in physical binders. Restoration projects are prioritized based on ecological

significance, public use, and funding. After we complete initial restoration on an area, we update the management plan for continued maintenance and any additional needs.

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.

- Belwin staff have read and follow the guidelines in all restoration projects.
- We will complete major cutting on frozen ground to limit soil disturbance.
- We will make every effort to reduce or avoid the use of chemicals in this restoration project and will only use herbicides when other methods would not be effective.
- When needed, we will time herbicide treatments to limit the non-target damage to native plants and pollinators.
- We will include the highest level of diversity in species appropriate for the site when planting and seeding.
- For all plant material used in the restoration processes, we will use yellow tag seed and plants sourced as close to the site as possible.

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.

Belwin employs a staff with over 50 combined years of experience caring for natural resources. The long-term maintenance and management of our land is an established and funded part of our organization, with a 49-year track record of managing our lands back to health.

After the initial restoration on this parcel is complete, Belwin staff, the school community, and volunteers will monitor the land to evaluate the success and inform long-term management needs. We rely on a community of people to help us monitor and assess our land for restoration success. Belwin staff will monitor the area several times each year and Anishinabe Academy students and families will be visiting the land often, taking measurements, and assessing restoration objectives (see section 6 below). We also often have volunteers, other educational groups, and scientists do projects on our land, walk trails, conduct bird counts, and generally use the area. All of these parties are asked to report back to Belwin what they see or measure so we can adjust our management plan to address any continuing restoration needs.

Although we need outside funding to complete the initial restoration of this property, Belwin is able to fund the long-term maintenance with our general operating budget. Our annual budget is funded through a combination of grants, individual donations, earned income, and a draw from our endowment. A healthy native landscape requires less care than a non-native landscape, and that stability in turn helps our organizational budget and goals.

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

Upon execution of the grant contract, we will notify the Conservation Corps. We will also notify them of any RFPs we put out for restoration activities. Belwin has done this regularly in the past and will carefully consider proposals by the Conservation Corps among any other proposals we receive.

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.

We will evaluate restoration success by establishing photo points and transect areas, and testing water and soil quality. Students and staff at Anishinabe Academy will complete transect surveys of plant density and diversity, basic water quality testing, and basic soil quality testing in the same locations each year as part of their science curriculum. Belwin

will keep this data year after year and document how it is collected so we can assume responsibility for the data collection if needed.

The photo monitoring will be done by Belwin staff. We will develop a photo monitoring program on this parcel similar to the monitoring that we do on many other points of our land. We will select 1-3 photos points within the management unit, mark them with a wooden post and record the GIS coordinates. We will take photos from those points in the same direction with the same camera (if possible) at the same time each year. Because spotted knapweed and European buckthorn are two of the most problematic species at the site, we plan to take the photos in June when the spotted knapweed is in flower, and again in October when the density of buckthorn in the understory is readily apparent. Belwin has an inventory of annual photo points and these points will be added to that list to complete annually into the future.

Attachments

Required Attachments

Map

File: [d2b65b15-c53.pdf](#)

Alternate Text for Map

The visual shows two maps - a large view of all of Belwin's land holdings, nearly 1,500 acres of land located in Afton and West Lakeland Township, MN. The holdings are not all contiguous, but are all in the same general area. The large map also shows Valley Creek trout stream running through several of Belwin's parcels. The smaller map is a zoom-in of the area addressed in this proposal. The small map shows 17 acres of land with mixed habitat of upland prairie and floodplain forest with Valley Creek trout stream running through. The smaller parcel has one border along St. Croix Trail, the main through-road in Afton, MN.

Financial Capacity

File: [7b24cad6-67e.pdf](#)

Board Resolution or Letter

Title	File
Belwin Board Resolution	1ec00dcd-2a6.pdf

Optional Attachments

Support Letter or Other

Title	File
Support Letter from Anishinabe Academy	805833c1-028.pdf

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

ATTACHMENT B
Visual Component or Map

PROJECT TITLE
**Restoring Land, Reviving Heritage:
Conservation Through Indigenous Culture**

