



Environment and Natural Resources Trust Fund (ENRTF)

M.L. 2020 ENRTF Work Plan

Today's Date: August 23, 2019

Date of Next Status Update Report: January 31, 2021

Date of Work Plan Approval:

Project Completion Date: June 30, 2022

Does this submission include an amendment request? __

PROJECT TITLE: YES! Students Take on Water Quality Challenge – Phase II

Project Manager: Shelli-Kae S. Foster

Organization: Prairie Woods Environmental Learning Center

College, Department, or Division: Youth Eco Solutions (YES!)

Mailing Address: 12718 10th Street NE

City, State, Zip Code: Spicer, MN 56288

Project Manager Direct Telephone Number: 320-354-5894

Email Address: shelli-kae@yesmn.org

Web Address: www.prairiewoodselc.org and www.yesmn.org

Location: Statewide

Total Project Budget: \$199,000

Amount Spent: \$0

Balance: \$199,000

Legal Citation: M.L. 2020, Chp. xx, Sec. xx, Subd. xx

Appropriation Language:

PROJECT STATEMENT:

Youth Eco Solutions (YES!) is a student-driven, award-winning program that challenges and empowers students to solve ecological challenges through hands-on projects. Since 2007 YES! has supported over 3,500 students in working with 6,500 businesses, organizations and community members, to impact an additional 110,000 students. Our goal with the proposed project is to mobilize Minnesota youth to partner with local watershed experts in over 20 communities to help fill the urgent need for broad citizen participation to protect and clean-up Minnesota waters.

Prairie Woods Environmental Learning Center (PWELC) is seeking \$199,000 to build on our past experience with water related projects to implement the 3-Step Water Awareness method developed during Phase I. This method includes the following: 1) student and coach orientation to aquatic invasive species (AIS) and training in water quality surveying techniques, 2) student-driven surveying and monitoring of local water bodies, and 3) student organized public education events and completion of water quality projects. This project is a triple win for Minnesota – youth acquire water quality knowledge, skills and career exposure; communities become more engaged and aware; and the state gains valuable monitoring/testing data from its waterways.

During the first part of Phase I, the number of water quality related projects completed by students more than tripled from 12 to 43! Projects include: water quality testing and evaluation, public events on water quality and peer education, design and planting of rain gardens, local lakeshore and river restoration and clean-up, storm water awareness, collection and reuse, building aquaponics systems, AIS monitoring and reporting, tracking of water usage, and water pollution reduction demonstrations through solar boat design and build. Project Guides created by teachers will serve as models for projects in Phase II. YES! works in partnership with Ney Nature Center and Laurentian Environmental Learning Center to bring this successful program to Minnesota's youth.

Specific Goals for YES! Students Take on Water Quality Challenge Phase - II:

- Complete 30 or more new student-driven water quality and citizen science projects and public events.
- Mobilize over 200 youth and 20 communities in local water quality issues and partnering with an additional 2,000 community or more community members.
- Improve over 20 valuable Minnesota water bodies by monitoring, testing, and reporting data. Data will contribute to the DNR EDDMapS.
- Partner with local experts to provide 10 customized water quality workshops and trainings.
- Recognize accomplishments through statewide Water Quality Stewardship award competition.

Support from M.L. 2011, 2014, and 2016 focused on energy, waste reduction, local foods and conservation education and projects. Completing over 700 action projects since 2011, YES! has demonstrated that youth can not only be a solution to today's environmental challenges, they can also be leaders in engaging their communities. Starting in 2018 YES! shifted its experiential learning opportunities to a clear focus on water quality while completing 43 water related projects in the 2018-19 YES! season. YES! projects have generated volunteer, in-kind and cash investments in sustainability projects far exceeding the total ENRTF funds invested in the projects.

II. OVERALL PROJECT STATUS UPDATES:

First Update January 31, 2021

Second Update July 31, 2021

Third Update January 31, 2022

Final Report between project end (June 30) and August 15, 2022

III. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1 Title: Recruit, Educate, and Train YES! Students in the 3-step Water Awareness model

Description: Building on our past experience, YES! students will learn from local and state water quality experts to complete up to 20 water quality and conservation projects over 2 years. In order to raise community awareness of water quality best practices in the local community, students will participate in the 3-step Water Awareness method to complete water related improvements identified in their community. Students will take a pre- and post-evaluation to determine program effectiveness.

YES! Coordinators recruit new YES! teams and confirm participation of existing teams to complete water quality projects. By partnering with local water quality experts to put on a Fall Summit and up to 2 workshops per region, YES! students will receive training in aquatic invasive species (AIS) testing and reporting, Adopt-A-Drain, citizen science, water stewardship, shoreline and buffer restoration and conservation best practices. Training will include hands-on identification of aquatic invasive species, how to correctly use water quality measurements such as a Secchi disk, how to accurately record water temperature, and how to identify what watershed they are located in. Students will then better understand water quality challenges in their local community and learn how they can be part of the solution. After training is completed, students will decide on one or more water quality projects to complete in their community. Using the YES! Metric Tracking Tool, specific metrics will be developed by coordinators for each water quality project. Students will educate community members about water quality issues in their area to further the awareness.

ACTIVITY 1 ENRTF BUDGET: \$81,365

Outcome	Completion Date
1. Recruit over 200 YES! students in over 20 communities to identify, evaluate, prioritize, and select local water quality projects over 2 years	November, 2021
2. Educate and prepare over 200 youth on the 3-step Water Awareness method of: 1) student and coach orientation and training, 2) student surveys of local water bodies, and 3) public awareness through events and presentations over 2 years	May, 2022
3. Train over 20 YES! teams through customized workshops on AIS testing, Secchi disk reading, buffer restoration, Adopt-a-Drain, and other water stewardship best practices over 2 years	June, 2022

The project impact will be evaluated by the number of students as well as community members and volunteers involved in each project. YES! includes a question in the YES! Graduate Exit survey to measure interest in conservation careers.

First Update January 31, 2021

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ACTIVITY 2 title: Taking Action – Over 30 New Student Driven, Hands-on Water Quality and Conservation Projects and Public Events Completed in Minnesota

Description: Building on the successful YES! model of connecting local experts and community resources with student identified water quality challenges in their community, YES! will connect students with local water quality experts to complete projects that will improve water bodies in their region. Over 20 YES! teams will partner with local watershed experts to implement community awareness and mitigation projects and participate in on-water and shore land activities to protect and improve local water quality over 2 years.

YES! coordinators work with local experts to support YES! teams to organize community events, supply watercrafts for on the water activities, and overall project support and guidance. YES! teams assess needs in their communities and schools, evaluate and help find local resources to meet these needs, and create an action plan to implement their projects with the support of their adult coach, YES! staff, and local water experts. Projects topics may include: Adopt-a-Drain, AIS testing and monitoring of local water bodies, citizen science, Secchi disk readings, shoreline restoration, clean up and educational events, visits to water treatment facilities, and other projects as determined through a community needs assessment.

ENRTF funds provide support for YES! staff time, program-related school district/organization expenses, and project seed funds. The school district/community expense reimbursement allowance is intended to offset expenses incurred by school districts and/or community organizations that sponsor a YES! team. This support allows teams to participate in YES! in a cost-effective manner. Eligible reimbursable expenses may include: 1. Reimbursement to offset the cost of hiring substitute teachers in order to allow YES! coaches/adult advisors to attend YES! events during the school day, and 2. Transportation expenses for buses or vans for students and coaches/adult advisors to travel to YES! events. The total allowance will be offered equally among participating teams.

ACTIVITY 2 ENRTF BUDGET: \$117,635

Outcome	Completion Date
1. Engage over 20 YES! teams to identify, prioritize, and select local water quality projects in their watershed over 2 years	May, 2022
2. Mobilize over 200 students to develop action plans and complete over 30 <u>new</u> water quality related action projects in partnership with their communities, including events over 2 years	June, 2022
3. Partner with local watershed experts to implement the 3-Step Water Awareness method and deliver to up to 20 communities through local events of on-water and shore land activities to protect and improve local water quality each year	June, 2022
4. Recognize student achievements through the Water Quality Stewardship award given to the team demonstrating exemplary work to mitigate water quality challenges each year of 2 -year grant	May, 2021 and May, 2022

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Second Update July 31, 2021

Third Update January 31, 2022

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IV. DISSEMINATION:

Description:

Information, updates and reports will be made available via the YES! website at www.yesmn.org, YES! e-newsletter, Prairie Woods ELC, Laurentian Environment Center, and Ney Nature Center newsletters and websites, Foundation communication vehicles & local media as available and on an ongoing basis. YES! will present at relevant opportunities such as Earth Day events, MNCoSE (MN Science Teachers Association conference), SciMathMN, Minnesota Association for Environmental Educators conferences and other relevant events. Project accomplishments are recognized and publicized via website, newsletters, conference presentations and local, regional and state-wide news media, annual Twin's game, school websites, and more.

The Minnesota Environment and Natural Resources Trust Fund (ENRTF) will be acknowledged through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the [ENRTF Acknowledgement Guidelines](#).

First Update January 31, 2021

Second Update July 31, 2021

Third Update January 31, 2022

Final Report between project end (June 30) and August 15, 2022

V. ADDITIONAL BUDGET INFORMATION:

A. Personnel and Capital Expenditures

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

Explanation of Use of Classified Staff: N/A

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

Enter Total Estimated Personnel Hours for entire duration of project: 4,576	Divide total personnel hours by 2,080 hours in 1 yr = TOTAL FTE: 2.2
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Total Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:

Enter Total Estimated Contract Personnel Hours for entire duration of project: 2,080	Divide total contract hours by 2,080 hours in 1 yr = TOTAL FTE: 1
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VI. PROJECT PARTNERS:

- A. Partners outside of project manager's organization receiving ENRTF funding: Laurentian Environmental Center and Ney Nature Center.

- B. Partners outside of project manager's organization NOT receiving ENRTF funding: Local watershed districts, County AIS Task Forces, Soil and Water Conservation Districts, Lake Associations, and U of M/Extension and others.

VII. LONG-TERM- IMPLEMENTATION AND FUNDING:

With major assistance from ENRTF, YES! has developed a solid network of partners, including students, educators, experts and community stakeholders. YES! will use its award-winning program to directly impact water quality in watersheds throughout Minnesota. YES! student teams bring what they have learned from workshops, tours and events back to their school and community through blog posts, school newsletters and their own educational events, developing informed and engaged citizens for a lifetime. YES! alumni testify that environmental engagement stays with them for a lifetime. YES! alumni are now employed in watershed districts, utilities, government, and school districts. Other past supporters of YES! include McKnight Foundation, Bush Foundation, Initiative Foundations, Waste Management, Regional Sustainable Development Partnerships, local businesses, local utilities, corporate sponsorships, and individual donors.

During this project, Prairie Woods ELC will work closely with our partners including Ney Nature Center and Laurentian Environmental Center to continue to bring this unique program to each part of the state. Working with our partners, YES! will seek regional support as well as statewide support through private and public partnerships, fundraisers, sponsorships and social enterprise

VIII. REPORTING REQUIREMENTS:

- Project status update reports will be submitted January 31 and July 31 each year of the project.
- A final report and associated products will be submitted between June 30 and August 15, 2022

IX. SEE ADDITIONAL WORK PLAN COMPONENTS:

A. Budget Spreadsheet

B. Visual Component

C. Parcel List Spreadsheet: N/A

D. Acquisition, Easements, and Restoration Requirements: N/A

E. Research Addendum: N/A

Attachment A: Project Budget Spreadsheet
 Environment and Natural Resources Trust Fund
 M.L. 2020 Budget Spreadsheet



Legal Citation:

Project Manager: Shelli-Kae S. Foster

Project Title: YES! Students Takes on Water Quality Challenge - Phase II

Organization: Prairie Woods Environmental Learning Center

Project Budget: \$199,000

Project Length and Completion Date: 2 years, June 30, 2022

Today's Date: August 23, 2019

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Budget	Amount Spent	Balance
BUDGET ITEM			
Personnel (Wages and Benefits)	\$ 124,700	\$ -	\$ 124,700
(1) ~ 0.70 FTE Project Manager at \$86,800 total cost for two years . 75% salary, 25% benefits each year for 2 years. Note: Project Manager will provide support to teams in Northwest & North Central regions.			
(1) ~ 0.3 FTE Team Coordinator at \$27,500 total cost for two years to coordinate and lead Water Awareness & Water Quality Project initiatives. 75% salary, 25% benefits for 2 years.			
(1) ~0.10 FTE Administrative Assistant at \$10,400 total cost for two years; 75% salary, 25% benefits each year for 2 years.			
Professional/Technical/Service Contracts			
Professional Service Contract: Laurentian Environmental Learning Center (1) 0.25 FTE Regional Coordinator to facilitate Water Awareness Method and water quality related project; \$ 13,000/year, total \$ 26,000 for 2 years. Contract will be single sourced due to previous relationship and experience.	\$ 26,000	\$ -	\$ 26,000
Professional Service Contract: Ney Nature Center (1) 0.25 FTE Regional YES! Team Coordinator to facilitate Water Awareness Method and water quality related projects; \$13,000/year, total \$26,000 for two years . Contract will be single sourced due to previous relationship and experience.	\$ 26,000		\$ 26,000
School District/Community Expense Allowance. This support allows teams to participate in YES! in a cost-effective manner. Eligible reimbursable expenses may include: 1. Substitute teachers in order to allow YES! coaches/adult advisors to attend YES! events during the school day, and 2. Transportation expenses for buses or vans for students and coaches/adult advisors to travel to YES! events. The total allowance will be offered equally among participating teams. Expenses will meet M.L. 2020 Guidelines.	\$ 6,500		
Equipment/Tools/Supplies			
Supplies for events and workshops. Boat rental as needed in some regions. In many regions boats will be provided through in-kind support.	\$ 800	\$ -	\$ 800
Travel expenses in Minnesota			
Coordinators & Project Director travel: 500 miles/month x 24 months = 12,000 miles x .58 = \$7,000 Note 1 : Travel required to support and meet with teams and partners and to coordinate activities in over 20 communities across the state of Minnesota. Note 2: NNC& LEC will cover a portion of travel within their region	\$ 7,000	\$ -	\$ 7,000
Other			
Project Seed Funds: Allows for teams to purchase materials and services necessary to initiate projects for water quality and conservation related projects, events, and event registrations to raise awareness, monitoring, testing and reporting. Up to \$400 per team x 10 teams = \$4,000 x 2 years = \$8,000.	\$ 8,000	\$ -	\$ 8,000
COLUMN TOTAL	\$ 199,000	\$ -	\$ 192,500
SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT	Budget	Spent	Balance
Non-State: School fees 20 teams x \$600	\$ 24,000	\$ -	\$ 24,000
In kind: PWELC \$24,000 + LEC \$5,000 + NNC \$ 10,000 for 2 years = ; Student volunteer time average is 327 hrs per team x 20 teams for 2 yrs at \$13/hr = \$85,400; Teacher volunteer time average is 98 hrs per team x 20 teams for 2 yrs at \$35/hr = \$68,600; Professional/expert volunteer time average is 33 hrs per team x 20 teams at \$45/hr = \$29,700. Above in-kind is based on past history of previously quantified data.	\$ 222,700	\$ -	\$ 222,700
Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS	Budget	Spent	Balance
M.L. 2018 05c YES! Students Take on Water Quality Challenge	213,000	37,713	175,287
M.L. 2016 05c Youth-Led Sustainability Projects in 50 MN Communities – Phase III	400,000	339,980	60,020
M.L. 2014 09b Youth-led Sustainability Initiatives in 40 Greater MN Communities	350,000	319,782	30,218
	\$ -	\$ -	\$ -

YES! Students Take on Water Quality Challenge – Phase II

Building on the successful YES! model, YES! will bring the 3-Step Water Awareness method to over 200 students to improve over 20 Minnesota water ways while partnering with over 2,000 community members and businesses

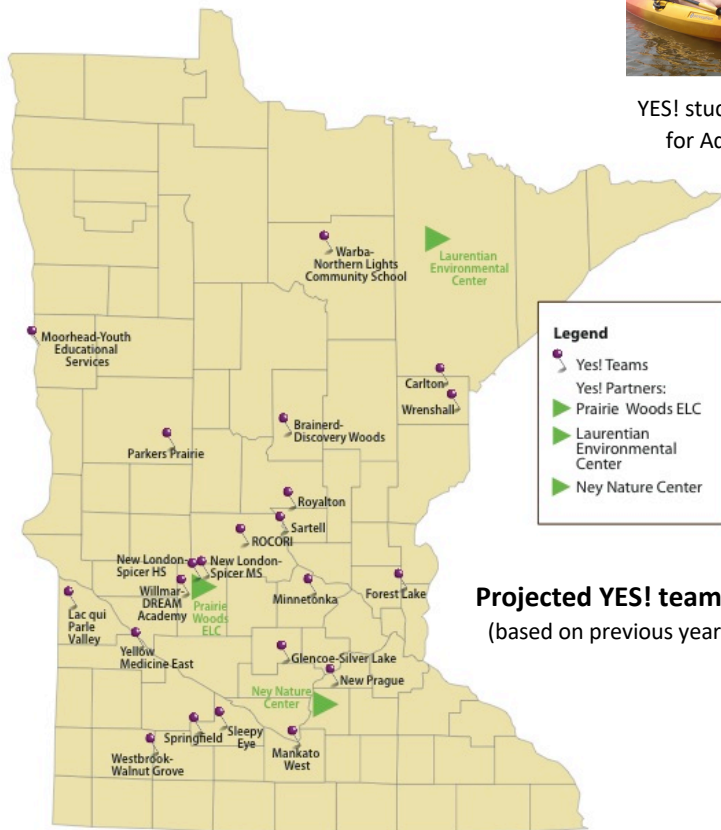


YES! students monitor Lake Ringo for Aquatic Invasive Species



YES! students planting a rain garden in Stearns County

- Complete 30 new student-driven water quality projects
- Engage and train over 200 youth in 20 communities about local water related issues
- Improve 20 or more valuable Minnesota water bodies



YES! students stencil storm drains around Forest Lake community

“What’s great about storm drain stenciling is that it sends a message that will reach a diverse and large number of community members. I took part in the project because there’s value in maintaining a healthy watershed”
-Forest Lake YES! student

Projects Completed During Phase I (Year 1 of 2 year project data)

- 5 water quality testing and evaluation projects
- 4 water-related educational events and peer lessons
- 4 rain gardens designed and planted
- 3+ local lakeshores and rivers cleaned
- 2 storm water collection and reuse projects
- 2 aquaponics systems built
- 2 AIS lake monitoring and reporting projects
- River monitoring and data collection
- Shoreline restoration
- 15 storm drains stenciled
- Water usage tracking
- Sub-05g rainwater cisterns
- Native garden & restoration

