



Environment and Natural Resources Trust Fund (ENRTF)

M.L. 2018 ENRTF Work Plan (Main Document)

Today's Date: December 15, 2017

Date of Next Status Update Report: January 31, 2019

Date of Work Plan Approval: 06/05/2018

Project Completion Date: June 30, 2020

Does this submission include an amendment request? No

PROJECT TITLE: YES! Students Take on Minnesota Water Quality Challenge

Project Manager: Shelli-Kae S. Foster

Organization: Prairie Woods Environmental Learning Center

College/Department/Division:

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Location: statewide

Total Project Budget: \$213,000

Amount Spent: \$0

Balance: \$0

Legal Citation: M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 05b

Appropriation Language: \$213,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Prairie Woods Environmental Learning Center to expand the Youth Energy Summit (YES!) model to improve local waterways by training and mobilizing over 20 youth-led teams in Minnesota communities to complete 30 or more projects related to water quality including monitoring and reporting.

I. PROJECT STATEMENT:

Youth Eco Solutions – formally Youth Energy Summit (YES!) teams across the state will mobilize local watershed stewardship efforts in over 20 communities to help fill the urgent need for broad citizen participation to protect and clean up Minnesota waters. This project extends the successful youth-led program which typically operates during the school year, into the summer and provides local water quality education in 20 communities. Teams of 5-20 youth, guided by a YES! Coordinator, will receive hands-on training from local natural resource professionals in the areas of aquatic invasive species (AIS), water quality monitoring and water quality improvement projects. Teams will then implement community awareness and mitigation projects and participate in on-water and shoreline activities to protect and improve local water quality. YES! is a youth-led, award-winning program that challenges and empowers students to solve environmental problems at the local level in partnership with their communities.

YES! engages tomorrow's leaders in seeking sustainable solutions to today's environmental and economic challenges through youth-led energy conservation, waste reduction, water quality improvement projects, renewable energy installations and other environmental stewardship projects. This project will use the successful YES! model to focus on water quality projects. Examples of YES! outcomes related to water quality projects that can be used as models for other teams include:

- A team of 8 students from the New London-Spicer YES! Team were trained by the Kandiyohi County Aquatic Invasive Species Coordinator and Middle Fork Crow River Watershed District (MFCRWD) in the summer of 2017 with the result of approximately 75 images of aquatic vegetation uploaded to the AquaHunter application for review and analysis by the DNR and AIS County Coordinator, students presented at River Days for 4th graders in the fall and the students learned they can be part of the solution to water quality challenges in their watershed.
- MFCRWD project of the Year was awarded to the Atwater-Cosmos-Grove City YES! team in January of 2017 for their tree trench project, a \$25,000 project completed to drain water away from a hallway that was constantly flooded and to provide a filtering system to clean water before it drains into local bodies of water. The award was designed to recognize groups who have improved or protected local water resources.
- The Virginia YES! team planted over 100 trees and shrubs covering 200 feet of shoreline along Silver Lake in the spring of 2017. They plan to restore the entire lake by working on 200 feet each year. They also installed signage to help educate the public about the project.

Through support from M.L. 2011, 2014 and 2016, YES! focused on energy and conservation education and projects. Completing over 600 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. For up to 20 teams, YES! will shift experiential learning opportunities to a clear focus on water quality. This project is a triple win for Minnesota – youth gain water quality knowledge, skills and career exposure; communities become more engaged and aware; and the state gains additional monitoring/testing data from its valuable waters.

YES! projects have generated volunteer, in-kind and cash investments in sustainability projects far exceeding the total ENRTF funds invested in the projects for both M.L.2011 and M.L.2014 funding.

Specific Goals for YES! Water Quality Project 2018-20:

- 30 or more new youth-led water quality and citizen science projects will be completed.
- Up to 200 youth will engage 20 or more communities in water quality awareness and activities.
- Over 20 valuable Minnesota water bodies over 2 years will be monitored, tested, and reported on for invasive species and contribute to DNR EDDMapS, AquaHunter and other databases.
- YES! teams compete for the statewide Water Quality Stewardship award and will be recognized publicly.

ENRTF funding will support coordinator involvement with teams, provide assistance to cover team expenses for attendance at events, and provide matching funds for water stewardship projects. In addition, funding supports key program staff.

HOW: YES! staff will reach out to schools to recruit new YES! teams and work with existing schools to retain YES! teams to attain the goals of completing 30 or more new youth-led water quality and citizen science projects and engaging up to 200 youth in 20 or more communities in water quality awareness training and activities. YES! has a network of water quality experts that will assist with training and leading our youth to understand the needs and opportunities to monitor, test, and report aquatic invasive species and contribute to the DNR EDDMapS, AquaHunter and other databases. YES! has an established system to recognize achievements through its regional and statewide spring awards. The statewide Water Quality Stewardship award will be a new category and the winner will be recognized publicly.

YES! staff meet directly with YES! teams 3 to 5 times per year to: assess community assets and needs, identify and involve community partners, create action-plans link teams with funding resources, and assist in the implementation of water quality projects. YES! staff provide on-going support to teams through: developing and sending out weekly updates, evaluating and offering relevant workshops and tours, organizing annual regional Summits bringing teams together for learning and networking, and in the spring teams present their completed projects to a panel of judges and awards are presented at community events.

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.

II. OVERALL PROJECT STATUS UPDATES:

First Update January 31, 2019

Second Update July 31, 2019

Third Update January 31, 2020

Final Update July 31, 2020

III. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Recruit, Educate and Provide Hands-on Training for up to 20 YES! Teams on Water Quality Challenges in Minnesota

Description: 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.

YES! Coordinators organize annual Fall Summits and more than 10 tours and workshops per year which are specific to team project goals.

(1) Annual Summit Event: Teams gather for orientation, networking, education, goal-setting, and project planning. The event has been held at Saint John’s University, Southwest Minnesota State University, Gustavus Adolphus College, Prairie Woods ELC & Redwood Falls.

(2) Annual Workshops and Tours: YES! Coordinators organize more than 10 tours and workshops per year, specific to team project goals. Topics have included: composting, recycling, renewable energy, lunch room waste reduction, energy efficiency strategies for schools and communities, visits to solar and wind farms, supermileage vehicle design, and local food initiatives. Each team participates in 1 or 2 workshops or tours per year. Workshops are typically held at Prairie Woods ELC, College of St. Benedict/St. John’s University, schools, community centers or regional businesses and organizations. Many organizations have participated in the past including: power cooperatives, county waste facility managers, Clean Energy Resource Teams (CERTs), University of MN/Extension educators, renewable energy businesses such as Blattner Energy Inc. and Silicon Energy of Mount Iron. For this project, YES! teams will partner with local water experts from local watershed districts, University of Minnesota, AIS County Taskforces, Sea Grant and others.

(3) Annual Spring Celebration and Judging: public recognition of team project outcomes and prize awards (prizes from local foundations such as SWIF & Initiative Foundation). The statewide competition will publicly recognize an outstanding YES! team that shows exemplary work in water mitigation and improvement.

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

ENRTF BUDGET: \$ 72,060

Outcome	Completion Date
1. Recruit up to 20 existing and new YES! teams in over 30 communities to participate in citizen science, AIS monitoring and other water quality related project topics	Nov. 2018, 2019
2. Educate over 200 youth by connecting them to their local watershed experts (DNR, SWCD, MPCA, University of MN, lake associations) to learn about the challenges to their community’s specific watershed	May 2019, 2020
3. Provide hands-on training to over 20 YES! teams through customized water quality workshops on AIS monitoring, Secchi disk reading techniques, buffer restoration and water stewardship best practices	Oct. 2018, 2019

First Update January 31, 2019

Second Update July 31, 2019

Third Update January 31, 2020

Final Update July 31, 2020

ACTIVITY 2: 20 YES! Teams Complete Over 30 New Water Quality Improvement Projects.

Description: 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, 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.

YES! staff provide ongoing guidance, resources, information, networking and other assistance as teams carry out action plans. YES! provides support and information to coaches/adult advisors and team leaders (youth) and assists with identifying organizations and businesses that share an interest in water quality and conservation. The YES! Data and Communications team maintains the YES! website, blog, social media, and tracks key data and creates and disseminates the YES! e-newsletter. Coordinators use in-person meetings and frequent e-mail contact to help teams stay informed with each other to share information on best practices and lessons learned. In addition, YES! conducts a pre-assessment prior to the Fall Summit and a post-assessment at the end of the school year. This data along with the Final Report and Power Point presentation used for spring judging assist in evaluating the effectiveness of the program in raising awareness of water quality issues and solutions.

ENRTF funds provide support for YES! staff time, program-related school district/organization expenses, and project seed funds. The school district/organization 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.

ENRTF BUDGET: \$ 140,940

Outcome	Completion Date
1. Over 20 YES! teams assess, identify, prioritize, and select local water quality projects	May 2019 & 2020
2. Over 20 YES! teams develop action plans and complete over 30 <u>new</u> water quality related action projects in partnership with their communities	June 2019 & 2020
3. Over 20 YES! teams partner with local watershed experts to implement community awareness and mitigation projects and participate in on-water and shoreline activities to protect and improve local water quality	Oct. 2018 & 2019

4. <u>New</u> Water Quality Stewardship award established and given to the team that demonstrates exemplary work to mitigate water quality challenges each year during the annual judging	June 2019 & 2020
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IV. DISSEMINATION:

Description: Information, updates and reports will be made available via the YES! website (www.youthenergysummit.org), YES! e-newsletter, Prairie Woods ELC, Laurentian Environment Center, Lakes Country Service Cooperative 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, MN Science Teachers Association, SciMathMN, and CERTs (Clean Energy Resource Teams) conferences and other relevant events. Project accomplishments are recognized and publicized via website, newsletters, conference presentations and local, regional and state-wide news media.

First Update January 31, 2019

Second Update July 31, 2019

Third Update January 31, 2020

Final Update July 31, 2020

V. PROJECT BUDGET SUMMARY:

ENRTF funds provide support for YES! staff time, travel, and project seed funds. The total allowance will be offered equally among participating teams. Each partner organization intends to have a part-time employee that has other responsibilities within the organization in order to create a full-time position. If this is not available, a part-time contractor may fulfill the duties as assigned.

ENRTF funds provide support for YES! staff time, program-related school district/organization expenses, and project seed funds. The school district/organization 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.

Project seed funds are made available to teams to enable water related action projects to get a start. These funds are usually matched by community support, fundraisers and volunteer time. Projects will vary depending upon school/community needs and student interests. YES! Coordinators will have a good understanding of team projects by mid-December or early January of each year. Funds will be used only for items deemed eligible as outlined in M.L. 2018 RFP "Guidance on Allowable Expenses."

Eligible expenses may include:

1. Materials for water quality and conservation education activities
2. Water conservation kits for community distribution
3. Equipment for tracking and measuring water consumption and savings, to be made available for public use
4. Professional or technical services with qualified individuals for consultation or labor relating to teams' water quality or conservation action projects

5. Materials and supplies for developing native plantings, pollinator gardens and promotion of other restorative practices that support clean water
6. Rental of boats to get students out on the water for AIS testing, Secchi disc readings, etc.
7. Water saving devices for installation in public buildings such as schools, city buildings, or county buildings.

A. Preliminary ENRTF Budget Overview: See attached budget spreadsheet

Explanation of Capital Expenditures Greater Than \$5,000: none

Explanation of Use of Classified Staff: none

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

Enter Total Estimated Personnel Hours for 2 years: 4,160	Divide by 2,080 = TOTAL FTE: 2.0
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Total Number of Full-time Equivalent (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:

Enter Total Estimated Personnel Hours for 2 years: 2,080	Divide by 2,080 = TOTAL FTE: 1.0 FTE
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B. Other Funds:

SOURCE OF AND USE OF OTHER FUNDS	Amount Proposed	Amount Spent	Status and Timeframe
Other Non-State \$ To Be Applied to Project During Project Period:			
<i>Note: dollars listed below will be applied to the YES! program to maintain 5 (.5 FTE positions) supporting 4 regional cohorts of up to 10 teams each.</i>			
McKnight Foundation	\$ 40,000		Secured: Funds available through Oct. 31, 2018
	\$ 120,000		Renewal request - Pending: 2 year grant request Nov. 1 2018 to Oct. 31, 2020
Team registrations at \$550 x 30 teams x 2 years teams = \$ 33,000 (number of teams may vary);	\$ 33,000		2018-19 season 2019-200 season
Sponsorships and other foundation support projected at \$25,000 x 2 years = \$50,000	\$ 50,000		Working to implement fund development plan in 2018-2020 with support from the McKnight Foundation
Other State \$ To Be Applied to Project During Project Period:			
AIS Kandiyohi County grant	\$ 5,000		2017-18
Past and Current ENRTF Appropriation:			
M.L. 2016, Chp. 186, Sec. 2, Subd. 05c.	\$400,000	\$224,000	As of 10.31.2017
M.L. 2014, Chp. 226, Art. 3, Sec. 2 Subd. 09b	\$350,000	\$320,000	

M.L. 2011, First Special Session, Chp. 2, Art. 3, Sec. 2, Subd. 08a	\$250,000	\$245,871	
Other Funding History: includes funding for the YES! program from 2007 through 2017, this project will be an extension of the original program			
Southwest Initiative Foundation	\$317,600	\$317,600	2007-2017
Minnesota Renewable Energy Marketplace	\$202,000	\$202,000	2007-2009
McKnight Foundation	\$170,000	\$110,000	\$60,000 for 2017-18 season
AgStar	\$25,000	\$25,000	2009-2010
Southern MN Initiative Foundation	\$33,530	\$33,530	2008-2011
Bush Prize Award	\$10,000	\$10,000	2016-17
Southwest Private Industry Council	\$ 7,500	\$7,500	2007
Great River Energy	\$3,000	\$3,000	2010
Center for Energy & Environment	\$1,500	\$1,500	2010
Initiative Foundation	\$5,000	\$5,000	2011-2013
Ney Nature Center	\$ 13,000	\$13,000	2015-17 (in-kind)
Laurentian Environmental Center	\$15,000	\$15,000	2014 – 2017 (in-kind)
Prairie Ecology Bus	\$1,500	\$1,500	2008
Central Regional Sustainable Development Partnership	\$11,000	\$11,000	2012-14
Northeast Regional Sustainable Development Partnership	\$10,000	\$10,000	2014-16
Prairie Woods ELC	\$300,000	\$300,000	2007- 2017 (in-Kind)
Other contributors	\$10,500	\$10,500	2007 - present

VI. PROJECT PARTNERS:

A. Partners receiving ENRTF funding

Name	Title	Affiliation	Role
Rebecca Pollack	Executive Director	Ney Nature Center	Program Partner - south
Karl Brown	Executive Director	Laurentian Environmental Center	Program Partner - northeast

B. Partners NOT receiving ENRTF funding

Name	Title	Affiliation	Role
Charlene Brooks	Aquatic Invasive Species Coordinator	Kandiyohi AIS Task Force	Resource Expert West-central region
Jonathan Morales	Watershed Technician	Middle Fork Crow River Watershed District	Resource Expert West-central region
Adam Hjelm	Water Education Specialist	Sauk River Watershed District	Resource Expert West – central region

Jill Sweet	Aquatic Invasive Species Technician	Minnehaha Creek Watershed District	Resource Expert Southern region
Allison Gamble	Invasive Species Specialist	MN Department of Natural Resources	Resource Expert Southern region
Karl Schmidtke	Program Manager	Friends of the Minnesota Valley River Watch	Resource Expert Southern region
Emily Nelson	Water Resources Specialist	N. St.Louis Soil and Water Conservation District	Resource Expert Northeast region
Marte Kitson	Environmental Literacy Extension Educator	MN Sea Grant	Resource Expert Northeast region
Rich Rezanka	Invasive Species Specialist	MN Department of Natural Resources	Resource Expert Northeast region
Karen Terry	Extension Educator, Water Resources	University of Minnesota	Resource Expert Northwest/West-central

VII. LONG-TERM- IMPLEMENTATION AND FUNDING:

With major assistance from ENRTF, YES! has developed a solid network of partners, students, educators, experts and a proven model for mobilizing youth-led environmental stewardship projects. YES! will utilize this successful model to impact water quality in watersheds throughout Minnesota. YES! teams bring education from workshops, tours and events back to their school and community through blog posts, school newsletters and hosting their own educational events, developing informed and engaged citizens for a lifetime. Project accomplishments are recognized and publicized via website, newsletters, conference presentations and local, regional and state-wide news media. PWELC and YES! are currently implementing a Fund Development Plan including recruitment of sponsors and developing a donor database.

VIII. REPORTING REQUIREMENTS:

- The project is for 2 years, will begin on July 1, 2018, and end on June 30, 2020.
- Periodic project status update reports will be submitted January 31 and July 31 of each year.
- A final report and associated products will be submitted between June 30 and August 15, 2020.

IX. SEE ADDITIONAL WORK PLAN COMPONENTS:

- A. Budget Spreadsheet
- B. Visual Component or Map
- C. Parcel List Spreadsheet - NA
- D. Acquisition, Easements, and Restoration Requirements - NA
- E. Research Addendum - NA

**Attachment A:
Environment and Natural Resources Trust Fund
M.L. 2018 Budget Spreadsheet**



Project Title: YES! Students Take on Water Quality Challenge
Legal Citation: M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 05b
Project Manager: Shelli-Kae S. Foster
Organization: Prairie Woods Environmental Learning Center
College/Department/Division:
M.L. 2018 ENRTF Appropriation: \$213,000
Project Length and Completion Date: 2 years, June 30, 2020
Date of Report: February 19, 2018

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Budget	Amount Spent	Balance
BUDGET ITEM			
Personnel (Wages and Benefits)			
(1) ~ 0.73 FTE Program Manager and Team Coordination at \$81,000 total cost for two years. 75% salary, 25% benefits each year for 2 years. Note: Program Manager will provide support to teams in NW/NC regions.	\$81,000	\$0	\$81,000
(1) 0.30 FTE Team Coordinator at \$31,000 for two years to coordinate and lead water quality project initiatives. 75% salary, 25% benefits each position for 2 years	\$31,000	\$0	\$31,000
(1) ~0.25 FTE Administrative Assistant \$18,800 for two years 75% salary, 25% benefits each year for 2 years	\$18,800	\$0	\$18,800
Professional Service Contracts			
Professional Service Contracts: Laurential Environmental Learning Center 1) .25 FTE Regional Coordinator to facilitate water quality related projects and activities; \$ 13,000/year, total \$ 26,000 for 2 years.	\$26,000	\$0	\$26,000
Professional Service Contract: Ney Nature Center (1) 0.25 FTE Regional YES! Team Coordinator to facilitate water quality related projects and activities; \$13,000/year, total \$26,000 for two years .	\$26,000	\$0	\$26,000
Equipment/Supplies/District Expenses: Supplies for events and workshops and travel (substitute teacher & mileage) for student teams to attend events & workshops. Boat rental as needed in some regions. In many regions boats will be provided through in-kind support.	\$10,000	\$0	\$10,000
Travel expenses in Minnesota: Coordinators & Project Director travel: 850 miles/month x 24 months = 19,065 miles x .535 = \$ 10,200 Note 1 : Travel required to support and meet with teams and partners and to coordinate activities in rural regions across the state of Minnesota Note 2: LCSC & NNC will cover a portion of travel within their region Note 3: LEC will cover a majority of travel within their region	\$10,200	\$0	\$10,200

Other: Project Seed Funds; Allows for teams to purchase materials and services necessary to initiate projects for water quality and conservation related projects, events, monitoring, testing and reporting. Up to \$500 per team x 10 teams = \$5,000 x 2 years = \$10,000.	\$10,000	\$0	\$10,000
COLUMN TOTAL	\$213,000	\$0	\$213,000

