

# OEEF Grant Application

Application Type: GeneralGrant

Application #: S-20G034

Revision from previous application: S-19G046

Previous grant received: n/a

## Organization Information

Name: Notre Dame College of Ohio - Biology

Web Address: www.ndc.edu

Address: 4545 College Road, South Euclid, OH 44121

County:

## Project Information

Project Title: Community Gardening as Environmental Stewardship: Focus on Nutrient Runoff

Educational Priority: Education on Reducing Nutrient Loadings  
to Rivers and Streams

Requested Grant Amount: \$35,599.00

Target Audience: Pre-school to University - Secondary, General Public - Primary

### Project Description:

The proposed project will meet the specific needs of the South Euclid community, Notre Dame College (NDC) community, and its collaborators by engaging residents, college students, and middle school (MS) students in garden programming that focuses on nutrient runoff reduction practices and sustainable storm water management.

We aim to meet the project goal with 5 objectives: 1) Develop and facilitate a 4-part community gardening (CG) program for South Euclid residents; 2) Create garden plots and practices in the NDC CG that model sustainable practices, reduce nutrient additions, and absorb rain and storm water; 3) Enhance the Cleveland Clinic Behavioral Management Summer Treatment Program gardening program for MS student participants; 4) Develop and implement a lab course for college students to explore sustainable gardening practices in the NDC CG, and 5) Provide internships for college students who will assist with program facilitation, garden maintenance, and evaluation.

### Anticipated List of Collaborators:

Committed partners include Cleveland Clinic/Ohio State Master Gardeners, City of South Euclid/One South Euclid, Cuyahoga Soil and Water Conservation District, Cleveland Roots, and Stone Soup Cleveland, Other invited partners include Ohio Sea Grant and Northeast Ohio Regional Sewer District.

## Additional Information

Have you ever attended an OEEF grant-writing workshop? No

Proposed Start Date: 06/02/2020

Will this project have statewide impact? No

Proposed Completion Date: 05/31/2021

Which Ohio counties will the activities take place in? Cuyahoga

## Audience Category

Formal Education: Secondary: 5-8, Undergraduate

General Public Education: Adults Generally, Senior Citizens, Parents, Property Owners,  
Neighborhood/Community/Organizations

## Project Issues

Water Issues: Surface Water/Watersheds

Land Issues: Land Laboratories/Outdoor Classrooms

Other Issues: Sustainability

## **Executive Summary**

### Audience Need:

The project will target resident gardeners in South Euclid and adjacent communities, middle school (MS) students attending the Cleveland Clinic ADHD Summer Treatment Program (CC STP) at NDC, and NDC undergraduate students. Demand for local CG plots exceeds availability. 8 of the 137 South Euclid community garden (CG) plots are at NDC. Per the local CG coordinator, residents are interested in attending CG programs at NDC. Over 9 years, the CC STP program reaches 36 MS students per year. The program utilizes the campus CG, NDC Grows, and faculty experts to facilitate a CG program that is a favorite of the students and can benefit from updates. We anticipate 50+ gardeners and 36 MS students. STEM majors are the fastest growing group at NDC. With many college students participating in environmental courses and clubs, we anticipate 10 students will enroll in the 15-week gardening course and 2 will participate in paid internships. Efforts should result in 500+ interactions with participants.

### Key Personnel:

Tracey Meilander, MEd, PhD, will serve as the project director. She directs NDC Grows, the campus CG, and Campus Composters. As Associate Professor of Biology, she teaches biology and environmental science courses, coordinates local sustainability partnerships, and directs the Choose Ohio First STEMM program. In 2016, she was named a Marie Goetz Geier Distinguished Professor of STEMM for her efforts in engaging students in STEM education. Over the past 20 years, she has educated students and evaluated education projects (formal and informal) with a focus on ecology, environmental science, and sustainability. She works closely with the South Euclid CG coordinator and director of the CC STP program. Two (2) NDC STEM and/or education students will serve as Sustainability Interns. Their role will be to assist with the planning and facilitation of workshops for residents and students, promoting events to students on campus and beyond, and to assist with internal program evaluation.

### Overall Project Objectives:

Goal: To engage residents, MS students, and college students in CG programs that focus on reducing nutrient runoff and increasing sustainable storm water management. Obj 1) Develop and facilitate an engaging, 4-part community gardening program for local residents; 2) Create garden plots and practices in the campus community garden, NDC Grows, that model sustainable practices, reducing the need for nutrient additions and that absorb rain and storm water; 3) Enhance the gardening program for MS students participating in the CC STP program with Project Wild and Project Wild curricula, and focusing on nutrient runoff and storm water management practices; 4) Develop and implement a one-credit hour lab course for undergraduate college students to learn about and implement sustainable gardening practices in the NDC Grows campus community garden; 5) Provide paid sustainability internships for 2 college students; and 6) To create a model for community, colleges, and organizational partnerships.

### Major Activities:

Major activities will include: 1) Developing and facilitating CG workshops for residents (50+ per event) with hands-on science and DIY environmental projects to take away, social interaction, and panel discussions with experts; focus will be on building knowledge of practices that CGs can use to manage storm water and limit nutrient runoff on their property and in their communities; 2) Facilitating CG workshops that integrate Project Wet and Project Wild activities for 36+ MS students participating in the CC STP program; 3) Training NDC student interns to assist with workshop planning, facilitation, and evaluation; 4) Adding ways to model sustainable practices at NDC Grows; 5) Developing and implementing a 15-week CG course for 10+ NDC students; 6) Evaluating the effectiveness of the workshops and course; 7) Creating a model for linking community members, college students, and environmental experts; and 8) Disseminating the model at state and national conferences and online.

### Overall Cost:

The total budget is \$43,739.00 and includes salaries and required benefits (program director, 2 student interns, and stipends for the panelists, curriculum materials and supplies (Project Wet and Project Wild books, exhibits, DIY and workshop supplies, garden supplies), and event advertising and promotion. NDC will contribute \$8,140.00 toward the project for facility rental, a portion of student stipends, equipment costs, and project director's benefits and conference travel. The funding request to the Ohio EPA is \$35,599.00

## **Project Description**

### Audience Need:

Community gardening (CG) is a beneficial, sustainable practice that is proliferating throughout the United States, the State of Ohio, and within the City of South Euclid including the spaces at Notre Dame College (NDC). According to the National Gardening Association (2011), 35% of households are involved with growing a portion of their own food, an increase of 200% from 2008. Even in as a predominantly urban area, Cuyahoga County is home to over 250 community gardens that serve over 5000 residents (Ohio State University Extension, 2019).

Within South Euclid, CG spaces and knowledge are in demand to supplement the 8 CGs with 137 plots. A yearly lottery determines which residents receive a plot, and demand for plots has consistently exceeded availability. In order to relieve this demand, NDC developed NDC Grows, an on-campus community garden with 17 plots - 9 plots are available for student research and outreach programs, and 8 plots are available to residents with additional growing and work space in a 12' x 8' greenhouse. In conversations with the South Euclid CG coordinator, residents are interested in workshops and education offerings at NDC. Approximately 50 community members attended a composting workshop and field trip presented by the College in collaboration with community partners. Within the Euclid Creek and Lake Erie watersheds, residential knowledge and understanding of nutrient and storm water runoff is important for healthy ecosystems. The CG is a showpiece on campus and serves as a key stop on the self-guided walking tour of South Euclid. Adding sustainable practices to the garden will improve its ability to model ways gardeners can limit nutrient and storm water runoff.

In its 9th year at NDC, the Cleveland Clinic ADHD Summer Treatment Program (CC STP) serves 36 MS students each summer. In the past 3 years, CC STP developed a collaboration with NDC Grows and its faculty to facilitate a series of hands-on garden-based activities for the student participants. As students attend the program for multiple years, changes to the activities are important to maintain engagement. Adding Project Wet and Project Wild activities, adding hands-on exhibits, and participating in the improved sustainable practices in the garden will refresh the activities and increase their relevance. The gardening activities have been a favorite of participants and researchers, allowing them to connect with the environment and practice their behavioral management strategies in a non-classroom setting. The involvement of the Ohio State University Master Gardeners provides a connection additional gardening experts.

Many of the upper division biology and environmental science courses uses the CG space for planting, researching, and learning about sustainable practices; however, interactions with community members on these topics is limited. The proposed workshops that involve residents and College students would provide a way to connect with residents on sustainability topics such as nutrient runoff and storm water management through gardening. With the growth of students in STEM and environmental science majors and increasing interest in environmental issues on campus, the internships and CG course will provide much needed opportunities for students to engage with the public, to improve their knowledge of sustainable CG practices that limit nutrient and storm water runoff, and to implement these practices in their career and/or personal life.

Qualification:

NDC educates a diverse population in the liberal arts for personal, professional, and global responsibility. Founded by Sisters of Notre Dame in 1922, NDC provides rigorous and relevant academic and co-curricular programs to students. Originally established as a college for women, NDC began admitting men in 2001 resulting in an increase in enrollment to around 1200 students. As a minority-serving institution with over 50% of students identifying with one or more ethnic and/or racial groups, and over one-third First Generation college students, NDC provides educational programs to a diverse population. Located in South Euclid, NDC works closely with the City of South Euclid, One South Euclid, and other organizations and agencies, and has engaged in a variety of sustainability projects with students and residents. NDC biology and environmental science programs are "growth" programs at the College, for their potential to provide quality educational programs, recruit and retain students, and engage the community. While NDC has not received OEEF project support to date, there is strong alignment with OEEF and NDC missions, particularly in the area of improving environmental science understanding and practices at the College and in the community.

NDC created the NDC Grows community garden in 2016 to engage students and residents in CG. The CG was an outgrowth of students assisting community gardeners in South Euclid CGs and from the student-led Campus Composters initiative that composts pre-consumer food waste from the campus dining hall. The area includes 17 gardening beds, an aerated 3-bin composting system, greenhouse, and cistern for rainwater collection. With this, NDC is a centerpiece for hands-on community education. NDC Grows is the key stop on South Euclid's walking tour with the potential to engage residents. The relationship with CC STP provides the foundation and audience for workshops with MS students. With increasing STEM majors, the fastest growing group on campus, there is interest in environmental issues and the need for related programs.

Tracey Meilander, MEd, PhD, will serve as the project director. She coordinates NDC Grows, Campus Composters, teaches biology and environmental science courses, coordinates sustainability partnerships, and directs the Choose Ohio First STEM program. She was named a Marie Goetz Geier Distinguished Professor of STEM for her efforts in engaging students in STEM education. For 20 years, she has educated students of all ages in formal and informal settings focusing on ecology, environmental science, and sustainability. She has managed STEM projects funded by NIH, ODHE, IMLS, etc. and evaluated NSF, ODE, and private foundation projects. Meilander earned a PhD in Biological Sciences at Kent State with an emphasis in Ecology and Aquatic Biology, was part of the International Field Year of Lake Erie team that studied dead zone, and remains current in her understanding of nutrient impacts on lakes.

Continuation and Replication Plan:

For project sustainability, NDC will partner with the City of South Euclid and One South Euclid in offering workshops that receive the most community interest and participation. NDC will continue to collaborate with our long-standing community partners on this initiative. Our collaboration with CC STP will continue and grow. The mini exhibit components will be integrated into the biology department and education and technology makerspace for future use in classes, community events, and workshops with students (MS to college) and community members. Based on CC STP and other current outreach activities, we anticipate that they will be used at least 15-20 times per year, reaching nearly 200 students and residents each year.

A deliverable of the project will be to create a usable model for linking community members (primarily gardeners), colleges, college students, and environmental experts and/or organizations. The program model and its results will be shared on campus with faculty, staff, students, and community partners at NDC's Celebration of Scholarship, and with faculty at local and national conferences, including Ohio PKAL STEM and the American Society for Microbiology's Conference on Undergraduate Education (ASMCUE); both conferences are premier undergraduate STEM education events that will allow for dissemination and sharing with college faculty, locally and nationally. NDC will continue its participation in the Laudato Si': Care for our Common Home lectures and panels organized by the Diocesan Social Action Group, an opportunity to share this environmental work. With CC STP, we will submit to the President's Lecture series, providing potential to share the program with a wider audience of College supporters.

The project will be promoted and archived on the Notre Dame College website ([notredamecollege.edu](http://notredamecollege.edu)). Panel discussions will be recorded and links to videos will be stored on the College website along with other program resources including instructions for implementing the program model and other findings. Within the community, the workshops will be promoted by City of South Euclid, One South Euclid, CC STP, and partnering organizations. Four (4) educational panels with photographs and summaries of the workshops will be mounted on the NDC Grows fence to provide a self-learning opportunity for the walking tour and other visitors. We will use the workshop series as a way to pilot course credit options for college student and continuing education units. We will work to integrate the CG college course into the College curriculum. Program activities will be highlighted in the Notre Dame Today magazine's print and online versions.

**Budget Narrative:**

The salary and benefit costs requested through this grant (\$7,810) will go towards the project director, Dr. Tracey Meilander, and two student interns. The project director, Dr. Meilander, will direct all aspects of the project to ensure that goals and objectives are met including management of all personnel, organization of panelists, and ordering of all equipment and supplies. She will also serve as an environmental science and Great Lakes expert. The salary and FICA costs support two student interns that will gain experience by assisting with workshop planning and facilitation, creation of promotional materials, website updates, and program evaluation support. The contractual costs requested would provide up to 12 stipends of \$300/person for subject matter experts to prepare and deliver presentations and hands-on activities during the 4-part program. The supplies cost requested through this grant (\$21,500.00) will support the purchase of interactive exhibits including an augmented reality sandbox and stream table that will be utilized by resident and student participants at workshop events and activities. Both pieces of equipment will be utilized for additional activities on campus and will be supported by NDC resources. The augmented reality sandbox brings water issues to life using a computer projector and a motion-sensing input device mounted above a box of sand to give users an interactive topography map full of colors and lines indicating elevation and slope. The motion sensor can also apply virtual rain to the sandbox to demonstrate how water moves over the shifting sand-scape. The stream table shows, in miniature, how streams flow through a watershed and how they behave when the water levels change. These tools allow for resident and student workshop participants to gain a macro understanding of water issues in general, and specifically, why storm water and nutrient loading impact management is so important. Materials and supplies also include the DIY project components, materials for the MS student workshops (including Project Wet and Project Wild curricula), the NDC community gardening course, and resources for adding sustainable practices to the NDC Grows community garden. The DIY supplies are helpful for participants to learn about native vegetation, rain barrels, etc. and to use these items at their own residence. The concepts addressed during the workshops, activities, and course will be included on durable educational signage that will be placed in the campus community garden. The signs and workshop outcomes will be shared at the annual celebration of scholarship on campus. Requested printing and promotion costs (\$600) will enable NDC to promote attendance at workshops and to encourage a broader audience than if we relied exclusively on unpaid, digital promotion. Other costs (\$2,089 requested and \$1,800 in-kind) will be used to share the project and its outcomes with a larger audience through PKAL and ASMCUE conference presentations and to promote the 4-part program in local ads (\$250/ad for 6 ads). One South Euclid has provided funds (\$300) for snacks for program participants. NDC is contributing its administrative/indirect costs of \$5,340 or 15% of the requested amount. The total amount required to deliver the stated program is \$43,739.00 with NDC providing \$8,140.00. The funding request to the Ohio EPA is \$35,599.00

**Project Objectives and Associated Activities & Outcome Measurements**

Objective Title: Develop and facilitate a 4-part community gardening program that engages 200+ South Euclid residents

**Objective Description:**

Resident participants will learn about sustainable gardening methods with a focus on strategies for decreasing nutrient and storm water runoff. Topics will include Composting to Reduce Fertilizer Use, Community Storm Water Management - What Sustainable Gardeners Need to Know, Capturing Storm Water with Rain Barrels and Rain Gardens, and Planting to Maximize Yield and Minimize Nutrient Impacts. An optional field trip to Langerdale Urban Marsh (Nine Mile Creek), a bioengineered habitat designed to reduce flooding, will also be available. These specific topics are selected for their accessibility to community gardeners as well as their likelihood for implementation, based on time and resources required.

Initial discussions with and feedback from community partners (Cleveland Roots, Stone Soup CLE, Cuyahoga Soil and Water Conservation District, One South Euclid, Cleveland Clinic, Ohio State Master Gardeners, etc.) led to these topics as well as the format. Their involvement will continue with more detailed discussions and planning of events, advertising, and implementation. Individuals from the organizations will be involved on the panels and in facilitating the hands-on activities. Student interns will assist with event planning and facilitation. Key to the format is the opportunity to interact with the environmental experts during the interactive socials and panel discussions.

The overall estimate of 200 participants is based on past resident participation at NDC environmental education activities. Additional advertising through community partners, on campus, and through other campus networks will likely increase attendance numbers.

Activity Title: 4 Community Garden Workshops

Start Date: 08/01/2020

End Date: 12/31/2020

% of Budget: 45.0%

Activity Description:

The four (4) programs for resident community gardeners will include evening two-hour programs (likely 7-9 PM) that will include opportunities to meet with experts from environmental organizations and other residents, interact with exhibits on the topic (i.e., stream table, augmented reality sandbox, Project WET activities or games, etc.) and DIY takeaway mini-projects. The panel discussions will involve local environmental experts followed by discussion and answer sessions. The exhibits, facilitated by student interns, will be a key component of the workshops allowing for visualization of the relationship between topography, runoff, human activities, and their effects. Promotion of the workshops will occur online, through social media, print flyers, and networks of participating organizations. Metrics will include the number of participants, number of community partners involved, and Likert attitude scores on workshop surveys. The format will provide an opportunity for the participants to interact and learn from experts who have committed to serving as panelists for the following topics:

Composting to Reduce Fertilizer Use - Cleveland Roots (Marie Livers, Darci Sanders), Stone Soup CLE (Giovanna Mingrove), Notre Dame College (Tracey Meilander); DIY table top composters - August 2020

Community Storm Water Management - What Sustainable Gardeners Need to Know - CSWCD (Elizabeth Hiser), City of South Euclid (Dan Subwick); DIY rain barrel - September 2020

Capturing Storm Water with Rain Barrels and Rain Gardens - CSWCD (Elizabeth Hiser), One South Euclid (Dan Subwick), Notre Dame College (Tracey Meilander); DIY rain barrel - October 2020

Selecting Plants to Maximize Yield and Minimize Impacts - Cleveland Roots (Marie Livers, Darci Sanders), Stone Soup CLE (Giovanna Mingrove), One South Euclid (Dan Subwick), and Cleveland Clinic (Ralph D'Alessio); DIY native plant seed "bombs" - November 2020

We will also offer a guided field trip to NDC Grows and Langerdale Urban Marsh (Nine Mile Creek), a bioengineered habitat designed to limited flooding to highlight a way that South Euclid is managing storm water in sustainable ways.

Outcome Title: Evaluation of Workshop Effectiveness

Initial Outcome:

The evaluation will gauge the effectiveness of the workshops to build awareness and increase implementation of gardening practices aimed at limiting nutrient runoff and storm water. The evaluation will use a mixed-methods approach including surveys of resident participants and follow-up interviews with selected participants and with panelists. Surveys will ask participants to self-rate their knowledge and understanding pre- and post-participation in the workshops, rate (on a Likert scale) their likelihood of implementing sustainable gardening strategies that limit nutrient and storm water runoff, and the likelihood of connecting with an environmental organization and/or expert for further education or to ask a question.

Long-Term Effects:

The long-term effects are to utilize this information using a qualitative approach to more clearly identify the strengths of the program and the areas for improvement. By specifically measuring the effectiveness of the interactive exhibits and activities, DIY projects, panel discussions, and question and answer sessions as well as the overall format of the event. A portion of participants will be contacted by phone and/or e-mail or a follow up asking for more details on their opinions of the events. Follow up interviews will also be conducted with panelists for their opinions on the format, its ability to make connections with community members, and the potential likelihood of participants to implement changes in gardening or residential practices to reduced nutrient and storm water runoff. The evaluation protocol will be submitted to the NDC Institutional Review Board (IRB) for approval. Findings will aid to inform best practices for future community environmental education programs.

Objective Title: Implement practices in the NDC community garden that model sustainable practices.

Objective Description:

By creating garden plots and showcasing sustainable practices in the campus community garden, NDC Grows, we will model strategies that residents can use at their home or place of work. Two garden plots will be planted with native and low nutrient plants using local seed mixes for native vegetation and vegetables that require low to no fertilizer. Current sustainable practices include use of compost generated from pre-consumer dining hall food waste on campus and collection of rain water in a cistern that is used for watering the garden, and regular soil testing. Addition of rain barrels, native plants to absorb nutrients and rain water, and soil drainage demonstration will draw attention to more ways that residents can help with environmental sustainability in their gardens.

Educational signage will be placed in the community garden to highlight and explain the importance of the garden's sustainable practices and their impact on nutrient runoff and storm water management in the community. The signage is an important method for self-guided learning by community gardeners, residents on the South Euclid walking tour, and college students visiting the garden.

Based on the number of residents and students (MS and college) that visit the community garden each year, we anticipate that over 150 individuals will observe and interact with the sustainable practices and educational signage each year.

Activity Title: Modeling and Implementation of Sustainable Practices

Start Date: 08/01/2020

End Date: 11/30/2020

% of Budget: 15.0%

Activity Description:

Two plots of native vegetation will be planted using mixes from Ohio seed providers. These plots will serve as a model and/or example of what local gardeners can do to create vegetative areas and gardens to decrease nutrient and storm water runoff. Soil and compost will be checked monthly using chemical methods to ensure nutrient levels are not contributing to nutrient runoff. Logs of nutrient composition will be posted on the garden shed. The addition of rain barrels will provide additional collection points for storm water that will be used on the side of the garden opposite the cistern, as distance can prevent the transfer of water from the cistern to these plots. These sustainable methods will be added during summer of 2020 so that the largest number of gardeners and residents can learn from them. Text and images for educational signage will be developed in summer 2020, produced, and installed by Fall 2020. Installing and implementing these practices early in the project will allow for them to be included in workshops, field trips, and community walking tour.

Outcome Title: Sustainable Practices Implemented

Initial Outcome:

The outcome metrics include the number of sustainable practices, signs, and estimate of community garden visitor interactions for the duration of the grant period.

Long-Term Effects:

Long-term impacts include the maintenance of the sustainable practices and estimate of community garden visitor interactions beyond the program year

Objective Title: Enhance gardening for 36 middle school CC STP students with Project Wild and Wet curricula

Objective Description:

For 9 years, the Cleveland Clinic ADHD behavioral management Summer Treatment Program for MS students has been held at NDC. Once the NDC Grows community garden was created on campus, CC STP started collaborative workshops for its students, to enhance their program experience and to test their behavioral management strategies in a non-classroom setting. This successful collaboration led to planning and facilitation of gardening activities by Cleveland Clinic staff, NDC faculty, and OSU Master Gardeners including planting seeds, maintaining gardens, harvest fest, composting, plant-themed crafts, information on pollinators, and plant anatomy and physiology. Since the students attend the program for multiple years, we aim to refresh the gardening activities and provide new learning experiences that focus on environmental science topics connected to community gardening, including limited nutrient and storm water runoff. Additional activities from Project Wet (e.g., The Incredible Journey, Water Concentration, etc.) and Project Wild (e.g., Sustainability: Then, Now & Later, Rain Drops & Ranges, etc.) curricula will be added to their program. The students will also engage with the augmented reality sandbox and stream table as part of the gardening activities.

The capacity of the CC STP is 36 students with each of these students participating in multiple (4-6) activities throughout the summer resulting in approximately 144 interactions around sustainability concepts.

<p>Activity Title: MS Student Workshops</p> <p>Start Date: 06/02/2020                      End Date: 09/30/2020                      % of Budget: 15.0%</p> <p><u>Activity Description:</u> A variety of sustainable gardening and environmental science activities (4-6, based on final CC STP schedule) to middle school students diagnosed with ADHD participating in the CC STP. The project director, director of CC STP, OSU Master Gardener volunteers, and student interns will meet in June 2020 to finalize the set of activities to be implemented during the summer (this is a finalization to planning already in development). Dates and times will be set for facilitation of activities. Materials and supplies will be purchased and items planted (where applicable). Student interns and camp counselors will practice the activities as part of their training to identify potential challenges with implementation or student management. Student interns will facilitate the programs with OSU Master Gardeners, and with oversight provided by the project director. Student interns will coordinate set up, clean up, facilitation, and conduct program interviews.</p>
<p>Outcome Title: Evaluation of Workshop Effectiveness</p> <p><u>Initial Outcome:</u> Outcome metrics will include the number of MS student participants in each of the activities, number of program volunteers, number of Project Wet and Project Wild activities implemented, and opinions of CC STP counselors and CC STP program director on effectiveness of program for the MS students. Student interns will conduct the interviews with CC STP counselors and program director.</p> <p><u>Long-Term Effects:</u> The long-term effects will involve the continuation of the gardening activities as part of the CC STP program, number of students participating and number of program volunteers each year.</p>
<p>Objective Title: Develop and teach a course for college students to learn and implement sustainable practices</p> <p><u>Objective Description:</u> The development and implementation of a community gardening course will provide a hands-on, outdoor lab, credit-based learning experience for students. In the first year, the course will be developed as a special topics pilot course. In the course, students will explore sustainable gardening practices by selecting, planting and maintaining vegetation that limits nutrient and storm water runoff. Based on increasing interest in environmental issues on campus - through growth in the environmental-focused club, the NDC Green Team and increases in STEM and environmental science majors, we anticipate that at least 10 students will register for the community gardening course. Students are interested in one-credit hour and/or upper division courses to meet graduation requirements. Courses with environmental-focused topics are increasing in interest and enrollment. Assessments will include logs of observations, sustainable practices, soil testing, and plant yields, and community presentations on sustainable practices that limit nutrient and storm water runoff. NDC Department of Biology, Division of Science and Mathematics, and the Office of Academic Affairs support will ensure successful implementation of the course.</p>
<p>Activity Title: Course Development and Facilitation</p> <p>Start Date: 08/01/2020                      End Date: 12/31/2020                      % of Budget: 10.0%</p> <p><u>Activity Description:</u> The proposed course has been discussed with academic leadership at the College and is supported. Development will begin in June 2020 with course implementation in the 2020-2021 academic year. The 15-week course will meet once per week (likely on Fridays) for 2.75 hours to meet contact hour requirements. The course opportunity will be shared with students in other STEM, education, and public service courses and through flyers on campus. Final course presentations will occur at the end of the semester and will include residents, environmental experts, and students in the audience. Student evaluations and opinions of the course will be gathered at the end of the semester. At the conclusion of the course, enrollment, academic and student evaluation data will be used to make recommendations on integrating the course into the curriculum and its long-term sustainability.</p>
<p>Outcome Title: Course Interest and Effectiveness</p> <p><u>Initial Outcome:</u> The outcome metrics for this objective include the number of students enrolled in the course, their academic success in the course and ability to meet the course learning outcomes, and student ratings of the course and instructor.</p> <p><u>Long-Term Effects:</u> Long-term metrics will involve future iterations of the course, number of students enrolled, and conversion of the course from a special topics course into the College curriculum.</p>



Objective Title: Provide paid internships for 2 college students pursuing environmental science and sustainability

Objective Description:

The project will support two undergraduate college students interested in sustainability and/or pursuing a degree in environmental science. The students will be trained on the environmental concepts, the effects of human impacts (with a focus on nutrient loading and storm water), scientific communication, interaction with community partners, and educational program planning. These skills are useful to many of the non-profit environmentally-focused jobs in the area and will provide students with experience to expand these skill sets. Internships are required for environmental science and provide a way to earn credit toward their degree, as local paid internships are in demand. The students will assist with planning and development of the resident workshops, CC STP student activities, gardening maintenance, interaction with community partners, program evaluation, and promoting the community garden among students on campus. The student interns will also provide feedback on the community gardening course to be developed for college students.

Activity Title: Student Internships

Start Date: 08/01/2020

End Date: 12/31/2020

% of Budget: 10.0%

Activity Description:

The paid internships will be coordinated in collaboration with NDC Career Services where students will develop internship goals and objectives. Students will each work 150 hours on this project for the duration of the program which can be split between Spring 2020 and Fall 2020. Student interns will participate in trainings with the project director, beginning in August 2020 in preparation for the first workshop at the end of that month. The project director will also supervise the students in program planning including the coordination of on campus advertising and recruitment of student participants, exhibit and workshop set up and facilitation, communication with panelists, clean up, garden maintenance, and internal evaluation activities. Students will practice setting up, facilitating, and trouble shooting exhibits during the trainings. They will also have the opportunity to job shadow community partners/panelists to learn more about the variety of carer options in the fields of environmental science and sustainability. To earn internship credit at NDC, students will maintain a log of their internship activities and write a reflection on their experience. A qualitative analysis of the responses will analyze the skills learned by students during the internship.

Outcome Title: Student Internship Success

Initial Outcome:

The outcome metrics for this objective include the number of students completing the internships, number of workshop hours complete, number of interactions with community members and students at the workshops, student ratings of the internship experience (facilitate by NDC Career Services), and a qualitative review of their skills learned and the overall experience.

Long-Term Effects:

The initial outcomes of this effort will inform our decision whether or not to explore the opportunity of providing course credit to NDC students attending the workshops offered to residents. The Dean of Academic Programs at NDC supports this idea. Student interns will provide feedback on the course learning outcomes and assessments for this credit option and for the community gardening course. Beyond the academic effects, the long-term outcome that will be assessed for the student interns supported through this project will consider if these students are able to use this experience to secure STEM related careers or acceptance into graduate degree programs.

Objective Title: To create a model for partnerships between communities, colleges, and environmental organizations

Objective Description:

The strength of the project proposal is the collaboration between the college and its students, residents, and a network of environmental organizations and experts in South Euclid and the adjacent communities. This collaboration was built and cultivated over many years of working together and leveraging time and resources to educate students and community residents on a wide range of environmental issues and sustainable practices. It will be helpful to provide a blueprint and recommendations of best practices to other colleges, cities, and organizations hoping to build a similar collaborative network. We plan to share our program model with others by building a webpage through the NDC website (Summer 2020) with program resources (ongoing) and results (by Fall 2021), presenting at state and national conferences (May 2021 and July 2021), and disseminating program information through a network of environmental organizations and experts. The program director will work with NDC Communications to build a webpage from the NDC web platform. Students interns will manage the content and add documents and information. The project director will present project results at the NDC Celebration of Scholarship (May 2021), submit to the Ohio PKAL STEM Conference and ASMCUE, premier conference for undergraduate STEM faculty. Remaining in contact with experts from environmental organizations (ongoing) will keep track of additional inquiries, dissemination events and opportunities. Metrics for dissemination will include number of websites linked to our resources, number of conference presentations, number of requests for information about the program model, and number of colleges/cities/organizations implementing the model.

Activity Title: Collaboration Blueprint

Start Date: 06/02/2020

End Date: 09/30/2021

% of Budget: 5.0%

Activity Description:

Develop a blueprint and recommendations for other colleges, cities and organizations hoping to build a similar collaborative network around sustainable community gardening. The blueprint will include: building a webpage from the NDC website (Summer 2020) with program resources (ongoing) and results (by Fall 2021), presenting at state and national conferences (Summer 2021), and disseminating program information through a network of environmental organizations and experts. The program director will work with NDC Communications to build a webpage from the NDC web platform. Students interns will help to manage the content and add documents and information. The project director will present the project and its results at the Ohio PKAL Conference (for STEM faculty in Ohio and adjoining states) and at ASMCUE (the premier undergraduate teaching conference for biology faculty).

Outcome Title: Dissemination and Collaboration

Initial Outcome:

The outcome metrics for this objective include the number of websites linked to our resources, number of conference presentations, and number of requests for information on the program. These will be logged by the program director.

Long-Term Effects:

Ultimately, the adoption of the program model by other colleges, cities, and/or organizations implementing the model will be the long-term impact that can help other environmental-focused projects in Ohio and beyond.

**Budget Summary**

Category	OEEF Grant % Total	OEEF Grant Amount	Applicant Match	Total
A.1. Salary or Wages	21.0	\$7,610.00	\$0.00	\$7,610.00
A.2. Benefits	1.0	\$200.00	\$1,000.00	\$1,200.00
A.3. Substitute Teachers	0.0	\$0.00	\$0.00	\$0.00
B.1. Supplies	60.0	\$21,500.00	\$0.00	\$21,500.00
B.2. Equipment	0.0	\$0.00	\$0.00	\$0.00
B.3. Printing	2.0	\$600.00	\$0.00	\$600.00
B.4. Other Costs	6.0	\$2,089.00	\$1,800.00	\$3,889.00
C.1. Contractual	10.0	\$3,600.00	\$0.00	\$3,600.00
D.1. Administrative	0.0	\$0.00	\$5,340.00	\$5,340.00
Total Budget		\$35,599.00	\$8,140.00	\$43,739.00

**A.1. Salary or Wages**

Employee Name	Title	Grant # of Hours	Grant Hourly Rate	Matching # of Hours	Matching Hourly Rate	Grant Annual Salary	Grant % of Salary	Matching Annual Salary	Matching % of Salary	OEEF Grant Amount	Applicant Matching Amount
Undergraduate interns - (2)	Student Interns - OEEF Grant	300	\$8.70	0	\$0.00	\$0.00	0.0	\$0.00	0.0	\$2,610.00	\$0.00
Dr. Tracey Meilander	Project Director and Associate Professor, Biology	0	\$0.00	0	\$0.00	\$5,000.00	100.0	\$0.00	0.0	\$5,000.00	\$0.00
Subtotal:										\$7,610.00	\$0.00

**A.2. Benefits**

Benefits Description	Rate or % of Salary	OEEF Grant Amount	Applicant Matching Amount
Benefits - NDC for Project Director	20.0	\$0.00	\$1,000.00
FICA (Interns)	7.65	\$200.00	\$0.00
Subtotal:		\$200.00	\$1,000.00

**B.1. Supplies**

Supplies Description	Quantity	Unit Price	OEEF Grant Amount	Applicant Matching Amount
Deluxe stream table (70" x 26" x 6")	1	\$1,996.00	\$1,996.00	\$0.00
DIY tabletop composting bins	100	\$10.00	\$1,000.00	\$0.00
5 lb Eastern Great Lakes Native Seed Mix to attract pollinators	1	\$497.00	\$497.00	\$0.00
Burpee Garden Sweet Pea Seeds - 200	1	\$8.00	\$8.00	\$0.00
Burpee Kale Blend Seeds - 100	1	\$7.00	\$7.00	\$0.00
Cuyahoga Water & Sewer District rain barrels	56	\$60.00	\$3,360.00	\$0.00
Project Wet and Wild Curriculum (K-8)	3	\$100.00	\$300.00	\$0.00
Sandastik white sand - 200 lb	2	\$148.00	\$296.00	\$0.00
Native plants for garden	1	\$3,000.00	\$3,000.00	\$0.00
Augmented Reality Sandbox (85" x 48" x 30")	1	\$9,500.00	\$9,500.00	\$0.00
Garden signage/banners and mounting	6	\$250.00	\$1,500.00	\$0.00
Burpee Kale Blend Seeds - 100	1	\$7.00	\$7.00	\$0.00
Pottery Clay - Low Fire White Cone 06 10 lb	1	\$29.00	\$29.00	\$0.00
		Subtotal:	\$21,500.00	\$0.00

**B.3. Printing**

Printing Description	Rate Description	OEEF Grant Amount	Applicant Matching Amount
Flyers and printing materials	.50/page	\$600.00	\$0.00
		Subtotal:	\$600.00

**B.4. Other Costs**

Other Costs Description	OEEF Grant Amount	Applicant Matching Amount
AAC&U's Project Kaleidoscope (PKAL) STEM Conference - project director registration fee	\$75.00	\$0.00
Print ads in local media (\$250/ad x 6 ads)	\$1,500.00	\$0.00
Hotel for PKAL Conference - 1 night for project director (estimated)	\$250.00	\$0.00
Round-trip mileage to PKAL Conference (.58/mi x 456 mi)	\$264.00	\$0.00
Snacks served during program sessions	\$0.00	\$300.00
American Society on Microbiology's Conference on Undergraduate Education	\$0.00	\$1,500.00
		Subtotal:
	\$2,089.00	\$1,800.00

**C.1. Contractual**

Contractual Description	Contractor Name	OEEF Grant Amount	Applicant Matching Amount
Subject matter expert/panelist stipend - \$300/person	Project partners	\$3,600.00	\$0.00
		Subtotal:	\$3,600.00

**D.1. Administrative**

Administrative Description	OEEF Grant Amount	Applicant Matching Amount
NDC indirect costs/administration (15% of requested amount)	\$0.00	\$5,340.00
		Subtotal:
	\$0.00	\$5,340.00

**Applicant Contact**

Contact Type: Project Director	Job Title: Associate Professor, Biology
Name: Tracey Meilander	
Primary Phone: (216) 373-5228	Primary Fax:
Primary Email: tmeilander@ndc.edu	
Primary Address: 4545 College Road, South Euclid, OH 44121	
Alternate Phone:	Alternate Fax:
Alternate Email:	
Alternate Address:	
Alternate Start Date:	Alternate End Date:

Contact Type: Authorizing Agent	Job Title: Advancement
Name: Christine Kohls	
Primary Phone: (216) 373-5234	Primary Fax:
Primary Email: ckohls@ndc.edu	
Primary Address: 4545 College Road, South Euclid, OH 44121	
Alternate Phone:	Alternate Fax:
Alternate Email:	
Alternate Address:	
Alternate Start Date:	Alternate End Date:

Contact Type: Fiscal Agent	Job Title: Vice President of Finance and Chief Financial Officer
Name: Cheryl Noviski	
Primary Phone: (216) 373-6352	Primary Fax:
Primary Email: cnoviski@ndc.edu	
Primary Address: 4545 College Road, South Euclid, OH 44121	
Alternate Phone:	Alternate Fax:
Alternate Email:	
Alternate Address:	
Alternate Start Date:	Alternate End Date:



**3253 West 41st Street Cleveland, OH 44109** [Stone Soup Cleveland](http://www.stonesoupCLE.org)

January 9, 2019

Dear Ohio EPA OEEF Review Panel,

I am writing to express support for and commitment to collaborate with Notre Dame College on "Community Gardening as Environmental Stewardship: Focus on Nutrient Runoff and Storm Water", a project that will engage residents, college students, and middle school students in gardening program focused on the practices that reduce nutrient runoff and contribute to storm water management. By providing community gardening projects in fun, interactive ways, we aim to stimulate thoughts and actions around sustainable practices that benefit the community. We look forward to collaborating with Dr. Tracey Meilander and Notre Dame College on this project by assisting with project planning, facilitating workshops, and promoting the workshops through our network.

Stone Soup CLE reclaims excess food and redistributes it to those in need, keeping nutritious meals on dinner tables and out of our community's landfills. We strive to create meaningful and sustainable solutions to hunger and food waste through education and partnerships. We have been working collaboratively with Cleveland Roots, a partner of Notre Dame College, and look forward to building a direct collaboration with the College and Tracey on this project. The alignment of the missions and goals of these organizations along with that of the Ohio Environmental Education Fund (OEEF) is the strength of this project.

Community gardening is a great way to engage students and community members and to build awareness and understanding of environmental issues (such as nutrient runoff and storm water management) in a familiar way - through food and growing food. It provides a way to bring awareness to and address other social justice issues such as food insecurity and lack of access to healthy foods. We look forward to our collaboration with Tracey and Notre Dame College on this project and look forward to engaging community residents and students.

Sincerely,

*Giovanna Mingrone*

Giovanna Mingrone  
Founder & Executive Director  
Stone Soup CLE, Inc.

# OEEF Grant Staff Checklist

**Application #:** S-20G034  
**Application Type:** GeneralGrant

**Organization Name:** Notre Dame College of Ohio - Biology  
**Project Title:** Community Gardening as Environmental Stewardship:  
 Focus on Nutrient Runoff

## A. Overall

1. Yes Project eligible?
2. Yes Project meets which of OEEF's Educational Priorities: Education on Reducing Nutrient Loadings to Rivers and Streams, Education on Innovative Stormwater Management Practices
3. Yes Organization eligible?
4. N/A Initials of staff member who provided pre-review, if any

Overall Comments:

There are some strong elements of this application. The collaboration is mentioned as being a strength of the project, but the lack of letters is evidence to the contrary. Some expensive items in the budget aren't adequately justified. Specific Project Wet and Wild activities are mentioned but how these activities meet specific standards are not discussed.

## B. Application Cover Sheet

5. Yes Collaborators identified on cover sheet appear to be correct based on their role as described in the proposal  
 Comments: But some collaborators are barely mentioned in the proposal (Ohio Sea Grant and Northeast Ohio Regional Sewer District)
6. Yes Time lines and start date are realistic and consistent with OEEF Guidelines  
 Comments: Not entered
7. Yes Grant duration 30 months or less
8. Yes Audience identified by applicant is correct for the project. If not, re-assign to audience: Not selected
9. 0 points Under-served Audience: Award 10 extra points if the proposed project targets a regulated community primary audience.
10. Yes List of counties identified by applicant appears correct based on activities in project description  
 Comments: Not entered
11. 0 points Under-served Counties: Award 5 points if the applicant organization is located in (OR all the proposed activities will take place in) a county/counties that OEEF has defined as under-served (i.e., where fewer than two grants have been awarded). Award 3 points if some of the proposed activities will take place in counties that OEEF has defined as under-served.
12. Yes Is this a revision of a previous application? (check last 2 cycles) If yes, OEEF ID#: F20G-020
13. No Has applicant previously received OEEF grant(s)? If yes, OEEF ID#: Not entered
14. Not selected Was previous grant awarded in the past twelve months?
15. Not selected Is any previous grant still open?  
 Not selected If yes, is previous grant likely to close before the Council meeting for this current grant cycle?

## C. Audience Categories and Project Issues

16. Comment if applicant appears to have made assignments in error  
 Comments: Not entered

## D. Contact Information

17. Yes One person is not serving in all 3 roles (director, fiscal, authorizing)  
 Comments: Not entered

### E. Project Description - Overall

18. Yes                      Project does not include political advocacy
19. Not selected            Project includes adequate safeguards for any potentially dangerous activities
20. No                        If this is a K-12 formal education project, it includes specific examples or a satisfactory explanation of the process that will be used to align student learning activities with New Learning Standards
- Comments: Secondary audience is grades 5-8. There is mention of a few specific Project Wet and Wild activities, but no mention of specific standards being met by the activities.

### F. Budget Narrative

21. Yes                      Itemized detail is provided
22. Yes                      Figures are accurate

### G. Budget Spreadsheet

#### Personnel

23. Not selected            Salary
24. Not selected            Benefits: Explanation of how calculated and % used for fringe.
25. Not selected            Stipends or Substitute: OEEF is not asked to pay for both for the same teacher for the same day

Comments on Personnel section of budget:

Not entered

#### Non-Personnel

26. Yes                      Supplies: Identified, grouped, unit priced, and totaled
27. Not selected            Equipment: Itemized, grouped, unit priced and totaled
28. Yes                        Printing: Itemized, # of copies, unit price, and totaled
29. Yes                        Other: Categorized, method of calculation, and totaled

Comments on Non-Personnel section of budget:

Not entered

#### Contractual

30. No                        Name of party, organization, # of hours, hourly wage, total
31. Yes                        The combination of Personnel and Contractual costs does not exceed 35% of the budget. (If it does, add comment and note percentage)

Comments on Contractual section of budget:

Contractual is vague. Hourly wage, # of hours, name, and organizations aren't included

32. Yes                        There are no ineligible expenses
33. Yes                        There is no unacceptable pass-through of grant funds to a third party
34. No                        Overall, expenses are reasonable (if questionable, add comment)
- Comments: A few questionable line items include: Contractual line item (already discussed in previous section), mileage in Other Costs section (where is the conference that it requires 456 miles of travel?), and the stream table and augmented reality sandbox (these items are expensive and the applicant is vague in the proposal about how these will be used to meet project objectives)
35. 0 points                      Award five extra points if the applicant (with their collaborators) has provided a strong, well-documented cash or in-kind match that greatly exceeds 10% of the funds requested from OEEF. (Do not assign extra points for less than a 50% match)
- Comments: Not entered

#### H. Letters of Collaboration and Support

- |     |              |  |
|-----|--------------|--|
| 36. | No           | Collaboration does not appear to be needed for this project to succeed<br>Comments: Not entered  |
| 37. | Yes          | If the project is collaborative, documentation letters have been received from all, partial or none of the collaborators   |
| 38. | 0 points     | Award five extra points for projects with very strong, well-documented collaboration<br>Comments: Two letters of collaboration, no letters of support. A few collaborators are listed but don't have letters   |
| 39. | 0 points     | Award five extra points if the applicant has provided documentation of support for the project from members or appropriate representatives of the target audience. (Letters or applications from teachers of the targeted grade level will meet this criteria for the pre-school to university audience. Letters or applications from an established trade or professional association will meet this criteria for the regulated community audience.)<br>Comments: Not entered |
| 40. | Not selected | Attachments, if any, are relevant to the applicant's ability to successfully complete the proposed project   |
| 41. | Not selected | Other<br>Comments: Not entered   |

**Checklist completed: Yes**

**Total Points Awarded: 0 out of 30**



# OEEF Grant Reviewer Score Sheet with Comments

<b>Application #:</b> S-20G034	<b>Organization Name:</b> Notre Dame College of Ohio - Biology
<b>Grant Type:</b> GeneralGrant	<b>Project Title:</b> Community Gardening as Environmental Stewardship: Focus on Nutrient Runoff
<b>Primary Target Audience:</b> General Public	<b>Application Status:</b> Scoring Complete

## Reviewer 1

A. Audience Need (up to 20 points)	Points Awarded	Maximum Score
1. The target audience is well-described.	5	5
2. The need is recognized by members or appropriate representatives of the target audience.	5	5
3. The need for the project was determined in a valid way.	5	5
4. Meeting this need will yield substantial benefits to the target audience, community and environment.	5	5
	20	20
<b>Reviewer Comments on Need Statement:</b>		
Not entered		
B. Organizational Qualifications (up to 10 points)	Points Awarded	Maximum Score
1. The applicant organization and/or its collaborators are experienced and well-qualified to work with this audience.	5	5
2. The applicant organization and/or its collaborators have appropriate expertise to conduct this project and ensure that the project information is scientifically valid and unbiased.	5	5
	10	10
<b>Reviewer Comments on Organizational Qualifications:</b>		
Not entered		
C. Project Objectives (up to 35 points)	Points Awarded	Maximum Score
1. The objectives define specifically who will benefit and what will be learned.	5	5
2. The objectives address the need of the target audience as presented in the Statement of Need.	5	5
3. The objectives are consistent with the mission of the applicant organization.	5	5
4. The objectives meet one of OEEF's educational priorities.	5	5
5. The objectives are measurable.	5	5
6. The objectives are realistic for the segment of the general public being targeted as the audience.	5	5
7. The project does not appear to duplicate other available environmental education resources and programs.	5	5
	35	35
<b>Reviewer Comments on Objectives:</b>		
Not entered		
D. Project Activities (up to 35 points)	Points Awarded	Maximum Score
1. The project activities are specific, and the sequence of activities is appropriate.	3	5
2. The project activities are appropriate for meeting the stated project objectives.	5	5
3. Reasonable steps are taken to ensure that the project information is scientifically valid and unbiased.	5	5
4. The project activities are relevant to real-world environmental issues affecting, or affected by, the general public.	5	5
5. The project activities are tailored to the interests and abilities of the particular segment of the general public being targeted.	5	5
6. The project does more than disseminate information: learners will engage in hands-on activities, problem solving, and/or skill-building.	5	5
7. The project makes good use of existing environmental education materials, or provides good justification for the decision to develop new materials.	5	5

	33	35
<b>Reviewer Comments on Activities:</b>		
<i>Not entered</i>		
<b>E. Timetable (up to 10 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The start and end dates are realistic for completion of the activities.	5	5
2. The start and end dates show that activities will be carried out in a logical sequence.	3	5
	8	10
<b>Reviewer Comments on Timetable:</b>		
<i>Within the Student Internship section that date of this activity is 8/1/2020 to 12/31/2020. In the paragraph explaining the role of the interns it states the duration of the internship will be Spring 2020 and Fall 2020 totaling 150 hours. According to the guidelines for grant applications the earliest start date is June 1, 2020. Wondering if the applicant meant Spring 2021, if so the end date needs to be revised or internship length needs to be changed to only Fall 2020 when the other programs take place.</i>		
<b>F. Outcome Measurement (up to 15 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The outcome measurements are scientifically valid for determining if the project objectives were achieved.	5	5
2. The measurements describe success indicators, tools being used to measure, methods of analyzing the data, and who will be conducting the evaluation.	5	5
3. The measurements address both short-term and long-term effects of the project.	5	5
	15	15
<b>Reviewer Comments on Outcome Measurements:</b>		
<i>Not entered</i>		
<b>G. Continuation/Replication Plan (up to 15 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The project includes a realistic plan for sharing the results with a wider public.	3	5
2. The plan describes how the project can continue once OEEF funding ends.	0	5
3. The plan describes how the project can serve as a model for replication in other communities or with other audiences.	0	5
	3	15
<b>Reviewer Comments on Continuation/Replication Plan:</b>		
<i>The project does not include enough explanation on how they plan to share this project with a wider public besides a conference that targets a select group. If the main audience is the general public, it doesn't seem to be enough information on sharing the results with a wider public. The continuing replication project does not provide enough detail on how the project will sustain itself. With the amount the applicant is asking for they do not explain in detail how they can continue this project financially. With the amount the applicant is asking for just in wages, advertisement, non-reusable supplies, and panelist stipends it is significant. For replicating the project no explanation is giving. Lectures on a website and summaries are talked about but no details on replicating in other communities.</i>		
<b>H. Budget (up to 20 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The budget table and narrative clearly explain all expenditures to be funded by the OEEF.	3	5
2. The budget is appropriate for this type of project.	0	5
3. Salary costs are reasonable as a proportion of the overall budget. (In general, salary costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	0	5
4. Equipment costs are reasonable as a proportion of the overall budget. (In general, equipment costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	5	5
	8	20
<b>Reviewer Comments on Budget:</b>		

The budget is excessive and not appropriate for this project. The salary section asks the grant to pay the entire salary, the OEEF guidelines state OEEF will not provide 100% of any employee's salary. The benefit section asks OEEF to pay for all of the intern FICA. The guidelines gives an example, if the applicant is asks OEEF to provide 20% of a staff's salary over the project period, OEEF will also be willing to provide a portion of that staff's benefit costs. With the entire salary being asked for and intern benefits request is not appropriate. The deluxe stream table and augmented reality sandbox are expensive and are not explained how they are needed to meet objectives. Based on experience with them they are not necessary to meet objectives or for this project. The location is not specified for conference, 456 miles seems like it could be out of state which OEEF does not fund. Contractual is vague and does not indicate what organization or expert is being paid with each stipend.

I. Discretionary Points (up to 10 points)	Points Awarded	Maximum Score
Up to 10 discretionary points may be awarded by the peer reviewer in cases where the applicant has demonstrated that the project has unique characteristics and excellent overall quality, where this distinction does not appropriately fit into the categories previously listed. The reviewer must explain in the comment section why the discretionary points were awarded.		10
		10
Reviewer Comments on Awarding of Discretionary Points:		
Not entered		

Total points awarded by reviewer 1: 132 out of 170

## Reviewer 2

A. Audience Need (up to 20 points)	Points Awarded	Maximum Score
1. The target audience is well-described.	5	5
2. The need is recognized by members or appropriate representatives of the target audience.	3	5
3. The need for the project was determined in a valid way.	3	5
4. Meeting this need will yield substantial benefits to the target audience, community and environment.	3	5
	14	20

### Reviewer Comments on Need Statement:

*Not entered*

B. Organizational Qualifications (up to 10 points)	Points Awarded	Maximum Score
1. The applicant organization and/or its collaborators are experienced and well-qualified to work with this audience.	5	5
2. The applicant organization and/or its collaborators have appropriate expertise to conduct this project and ensure that the project information is scientifically valid and unbiased.	5	5
	10	10

### Reviewer Comments on Organizational Qualifications:

*NDC and its partner affiliates are well suited to put this program into place*

C. Project Objectives (up to 35 points)	Points Awarded	Maximum Score
1. The objectives define specifically who will benefit and what will be learned.	3	5
2. The objectives address the need of the target audience as presented in the Statement of Need.	3	5
3. The objectives are consistent with the mission of the applicant organization.	5	5
4. The objectives meet one of OEEF's educational priorities.	5	5
5. The objectives are measurable.	5	5
6. The objectives are realistic for the segment of the general public being targeted as the audience.	3	5
7. The project does not appear to duplicate other available environmental education resources and programs.	3	5
	27	35

### Reviewer Comments on Objectives:

*Not entered*

D. Project Activities (up to 35 points)	Points Awarded	Maximum Score
1. The project activities are specific, and the sequence of activities is appropriate.	3	5
2. The project activities are appropriate for meeting the stated project objectives.	3	5
3. Reasonable steps are taken to ensure that the project information is scientifically valid and unbiased.	5	5
4. The project activities are relevant to real-world environmental issues affecting, or affected by, the general public.	3	5
5. The project activities are tailored to the interests and abilities of the particular segment of the general public being targeted.	5	5
6. The project does more than disseminate information: learners will engage in hands-on activities, problem solving, and/or skill-building.	5	5
7. The project makes good use of existing environmental education materials, or provides good justification for the decision to develop new materials.	3	5
	27	35

### Reviewer Comments on Activities:

*Not entered*

E. Timetable (up to 10 points)	Points Awarded	Maximum Score
--------------------------------	-------------------	------------------

1. The start and end dates are realistic for completion of the activities.	5	5
2. The start and end dates show that activities will be carried out in a logical sequence.	5	5
	10	10
<b>Reviewer Comments on Timetable:</b>		
<i>Not entered</i>		
<b>F. Outcome Measurement (up to 15 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The outcome measurements are scientifically valid for determining if the project objectives were achieved.	5	5
2. The measurements describe success indicators, tools being used to measure, methods of analyzing the data, and who will be conducting the evaluation.	5	5
3. The measurements address both short-term and long-term effects of the project.	5	5
	15	15
<b>Reviewer Comments on Outcome Measurements:</b>		
<i>The team presents a fairly comprehensive approach to measure overall outcomes</i>		
<b>G. Continuation/Replication Plan (up to 15 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The project includes a realistic plan for sharing the results with a wider public.	5	5
2. The plan describes how the project can continue once OEEF funding ends.	5	5
3. The plan describes how the project can serve as a model for replication in other communities or with other audiences.	3	5
	13	15
<b>Reviewer Comments on Continuation/Replication Plan:</b>		
<i>Not entered</i>		
<b>H. Budget (up to 20 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The budget table and narrative clearly explain all expenditures to be funded by the OEEF.	5	5
2. The budget is appropriate for this type of project.	5	5
3. Salary costs are reasonable as a proportion of the overall budget. (In general, salary costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	5	5
4. Equipment costs are reasonable as a proportion of the overall budget. (In general, equipment costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	5	5
	20	20
<b>Reviewer Comments on Budget:</b>		
<i>Not entered</i>		
<b>I. Discretionary Points (up to 10 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
Up to 10 discretionary points may be awarded by the peer reviewer in cases where the applicant has demonstrated that the project has unique characteristics and excellent overall quality, where this distinction does not appropriately fit into the categories previously listed. The reviewer must explain in the comment section why the discretionary points were awarded.	5	10
	5	10
<b>Reviewer Comments on Awarding of Discretionary Points:</b>		
<i>I am impressed the proposal's methods to assess long term impacts and the participation of a wide section of the audience (college students, community, and training of student interns</i>		
<b>Total points awarded by reviewer 2: 141 out of 170</b>		

## Reviewer 3

A. Audience Need (up to 20 points)	Points Awarded	Maximum Score
1. The target audience is well-described.	5	5
2. The need is recognized by members or appropriate representatives of the target audience.	5	5
3. The need for the project was determined in a valid way.	5	5
4. Meeting this need will yield substantial benefits to the target audience, community and environment.	5	5
	20	20

### Reviewer Comments on Need Statement:

*The audience need is well defined. Data from the National Gardening Association and the local GC coordinator help to strengthen the claims.*

B. Organizational Qualifications (up to 10 points)	Points Awarded	Maximum Score
1. The applicant organization and/or its collaborators are experienced and well-qualified to work with this audience.	5	5
2. The applicant organization and/or its collaborators have appropriate expertise to conduct this project and ensure that the project information is scientifically valid and unbiased.	5	5
	10	10

### Reviewer Comments on Organizational Qualifications:

*Notre Dame and Dr. Meilander are well qualified to carry out the proposed activities.*

C. Project Objectives (up to 35 points)	Points Awarded	Maximum Score
1. The objectives define specifically who will benefit and what will be learned.	5	5
2. The objectives address the need of the target audience as presented in the Statement of Need.	5	5
3. The objectives are consistent with the mission of the applicant organization.	5	5
4. The objectives meet one of OEEF's educational priorities.	5	5
5. The objectives are measurable.	5	5
6. The objectives are realistic for the segment of the general public being targeted as the audience.	5	5
7. The project does not appear to duplicate other available environmental education resources and programs.	5	5
	35	35

### Reviewer Comments on Objectives:

*The objectives are detailed and thoroughly cover the various groups within the target audience.*

D. Project Activities (up to 35 points)	Points Awarded	Maximum Score
1. The project activities are specific, and the sequence of activities is appropriate.	5	5
2. The project activities are appropriate for meeting the stated project objectives.	5	5
3. Reasonable steps are taken to ensure that the project information is scientifically valid and unbiased.	5	5
4. The project activities are relevant to real-world environmental issues affecting, or affected by, the general public.	5	5
5. The project activities are tailored to the interests and abilities of the particular segment of the general public being targeted.	5	5
6. The project does more than disseminate information: learners will engage in hands-on activities, problem solving, and/or skill-building.	5	5
7. The project makes good use of existing environmental education materials, or provides good justification for the decision to develop new materials.	5	5
	35	35

### Reviewer Comments on Activities:

*Not entered*

E. Timetable (up to 10 points)	Points Awarded	Maximum Score
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1. The start and end dates are realistic for completion of the activities.	5	5
2. The start and end dates show that activities will be carried out in a logical sequence.	5	5
	10	10
<b>Reviewer Comments on Timetable:</b>		
<i>Not entered</i>		
<b>F. Outcome Measurement (up to 15 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The outcome measurements are scientifically valid for determining if the project objectives were achieved.	3	5
2. The measurements describe success indicators, tools being used to measure, methods of analyzing the data, and who will be conducting the evaluation.	3	5
3. The measurements address both short-term and long-term effects of the project.	3	5
	9	15
<b>Reviewer Comments on Outcome Measurements:</b>		
<i>Methods of analysis are described consistently and are valid, however, not all objectives are clearly connected with the outcome measurement. The objective relating to the MS gardening activities is directly related to the learning and growth of the participating students, but this is not part of the outcome measurement. I suggest adding an evaluation of the MS students to the outcome measurement for this objective. For the objective "Implement practices in the NDC community garden that model sustainable practices." I suggest adding more specifics on how the number of visitors will be estimated in the short and long term. For all outcomes, I suggest adding specifics on the criteria that will be used to indicate success when measuring. The discussion on outcomes also focuses heavily on methodology, but is lacking specific detail on what outcomes are expected. I suggest adding more detail on this.</i>		
<b>G. Continuation/Replication Plan (up to 15 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The project includes a realistic plan for sharing the results with a wider public.	5	5
2. The plan describes how the project can continue once OEEF funding ends.	3	5
3. The plan describes how the project can serve as a model for replication in other communities or with other audiences.	5	5
	13	15
<b>Reviewer Comments on Continuation/Replication Plan:</b>		
<i>Not entered</i>		
<b>H. Budget (up to 20 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
1. The budget table and narrative clearly explain all expenditures to be funded by the OEEF.	5	5
2. The budget is appropriate for this type of project.	3	5
3. Salary costs are reasonable as a proportion of the overall budget. (In general, salary costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	5	5
4. Equipment costs are reasonable as a proportion of the overall budget. (In general, equipment costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	5	5
	18	20
<b>Reviewer Comments on Budget:</b>		
<i>I believe that the costs for supplies, specifically the stream table and augmented reality sandbox, are excessive for this project. These two items alone are over, \$11,000 and have limited use in the proposed activities, serving as only exhibits during the gardening sessions. I believe the tools are useful and will lend to the continuation and replication plan, but I believe removing them or providing significant additional detail on how they will directly benefit the project objectives will make the budget more realistic.</i>		
<b>I. Discretionary Points (up to 10 points)</b>	<b>Points Awarded</b>	<b>Maximum Score</b>
Up to 10 discretionary points may be awarded by the peer reviewer in cases where the applicant has demonstrated that the project has unique characteristics and excellent overall quality, where this distinction does not appropriately fit into the categories previously listed. The reviewer must explain in the comment section why the discretionary points were awarded.		10
		10
<b>Reviewer Comments on Awarding of Discretionary Points:</b>		

*Not entered*

**Total points awarded by reviewer 3: 150 out of 170**



## Reviewer 4

A. Audience Need (up to 20 points)	Points Awarded	Maximum Score
1. The target audience is well-described.	5	5
2. The need is recognized by members or appropriate representatives of the target audience.	3	5
3. The need for the project was determined in a valid way.	3	5
4. Meeting this need will yield substantial benefits to the target audience, community and environment.	3	5
	14	20

### Reviewer Comments on Need Statement:

Not entered

B. Organizational Qualifications (up to 10 points)	Points Awarded	Maximum Score
1. The applicant organization and/or its collaborators are experienced and well-qualified to work with this audience.	5	5
2. The applicant organization and/or its collaborators have appropriate expertise to conduct this project and ensure that the project information is scientifically valid and unbiased.	5	5
	10	10

### Reviewer Comments on Organizational Qualifications:

Not entered

C. Project Objectives (up to 35 points)	Points Awarded	Maximum Score
1. The objectives define specifically who will benefit and what will be learned.	5	5
2. The objectives address the need of the target audience as presented in the Statement of Need.	5	5
3. The objectives are consistent with the mission of the applicant organization.	5	5
4. The objectives meet one of OEEF's educational priorities.	5	5
5. The objectives are measurable.	3	5
6. The objectives are realistic for the segment of the general public being targeted as the audience.	5	5
7. The project does not appear to duplicate other available environmental education resources and programs.	5	5
	33	35

### Reviewer Comments on Objectives:

Not entered

D. Project Activities (up to 35 points)	Points Awarded	Maximum Score
1. The project activities are specific, and the sequence of activities is appropriate.	3	5
2. The project activities are appropriate for meeting the stated project objectives.	3	5
3. Reasonable steps are taken to ensure that the project information is scientifically valid and unbiased.	5	5
4. The project activities are relevant to real-world environmental issues affecting, or affected by, the general public.	5	5
5. The project activities are tailored to the interests and abilities of the particular segment of the general public being targeted.	5	5
6. The project does more than disseminate information: learners will engage in hands-on activities, problem solving, and/or skill-building.	5	5
7. The project makes good use of existing environmental education materials, or provides good justification for the decision to develop new materials.	5	5
	31	35

### Reviewer Comments on Activities:

This is one area that is a little lacking. With the emphasis on hands-on, inquiry based learning valued by OEEF, the application lacks much description on how the workshops will be run. Other than mentioning Project WET and Project WILD, we don't really know how they will run the courses.

E. Timetable (up to 10 points)		Points Awarded	Maximum Score
1.	The start and end dates are realistic for completion of the activities.	5	5
2.	The start and end dates show that activities will be carried out in a logical sequence.	5	5
		10	10
Reviewer Comments on Timetable:			
Not entered			
F. Outcome Measurement (up to 15 points)		Points Awarded	Maximum Score
1.	The outcome measurements are scientifically valid for determining if the project objectives were achieved.	5	5
2.	The measurements describe success indicators, tools being used to measure, methods of analyzing the data, and who will be conducting the evaluation.	5	5
3.	The measurements address both short-term and long-term effects of the project.	5	5
		15	15
Reviewer Comments on Outcome Measurements:			
This is also a little lacking. As the outcomes mentioned are pretty shallow, just sheer numbers of participants, it is hard to tell whether or not the program will be successful.			
G. Continuation/Replication Plan (up to 15 points)		Points Awarded	Maximum Score
1.	The project includes a realistic plan for sharing the results with a wider public.	5	5
2.	The plan describes how the project can continue once OEEF funding ends.	3	5
3.	The plan describes how the project can serve as a model for replication in other communities or with other audiences.	5	5
		13	15
Reviewer Comments on Continuation/Replication Plan:			
Not entered			
H. Budget (up to 20 points)		Points Awarded	Maximum Score
1.	The budget table and narrative clearly explain all expenditures to be funded by the OEEF.	5	5
2.	The budget is appropriate for this type of project.	3	5
3.	Salary costs are reasonable as a proportion of the overall budget. (In general, salary costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	5	5
4.	Equipment costs are reasonable as a proportion of the overall budget. (In general, equipment costs should not exceed 50% of the total OEEF budget for the project. Higher amounts should be very well justified by the applicant)	3	5
		16	20
Reviewer Comments on Budget:			
My experience from some local experts who have purchased the augmented sandbox says that it may be a little over priced. Without an actual quote, it is hard to tell. Many usable ones range from \$4000-\$5000.			
I. Discretionary Points (up to 10 points)		Points Awarded	Maximum Score
Up to 10 discretionary points may be awarded by the peer reviewer in cases where the applicant has demonstrated that the project has unique characteristics and excellent overall quality, where this distinction does not appropriately fit into the categories previously listed. The reviewer must explain in the comment section why the discretionary points were awarded.			10
			10
Reviewer Comments on Awarding of Discretionary Points:			
Not entered			
Total points awarded by reviewer 4: 142 out of 170			