

**NORTH DAKOTA WATER EDUCATION (NDWE) WATER QUALITY  
NONPOINT SOURCE POLLUTION (NPS) EDUCATION PROGRAM**

NPS Project Implementation Plan

July 1, 2025 – June 30, 2027

Prepared by:

Tina Harding, Water Resource Education Program Manager

NORTH DAKOTA DEPARTMENT OF WATER  
RESOURCES

1200 Memorial Highway  
Bismarck, ND 58504  
(701) 328-4833  
E-mail [tinamharding@nd.gov](mailto:tinamharding@nd.gov)

October 2024

## 1.01 PROJECT SUMMARY SHEET

### PROJECT TITLE NAME:

**NORTH DAKOTA WATER EDUCATION (NDWE) WATER QUALITY NONPOINT  
SOURCE POLLUTION (NPS) EDUCATION PROGRAM**

### NAME AND ADDRESS, TELEPHONE AND E-MAIL OF LEAD PROJECT SPONSOR/ SUBGRANTEE:

NORTH DAKOTA DEPARTMENT OF WATER RESOURCES (NDDWR)  
1200 Memorial Highway  
Bismarck, ND 58504  
(701) 328-4833  
[tinamharding@nd.gov](mailto:tinamharding@nd.gov)

**STATE CONTACT PERSON:** Tina Harding

**TITLE:** Water Resource Education  
Program Manager

**PHONE:** (701) 328-4833

**FAX:** (701) 328-3747

**EMAIL:** [tinamharding@nd.gov](mailto:tinamharding@nd.gov)

**STATE:** North Dakota

**WATERSHED:** Statewide

**HYDROLOGIC UNIT CODE:** NA

**HIGH PRIORITY**

**WATERSHED:** (YES/NO): **NO**

**TMDL UNDER DEVELOPMENT: PENDING \_\_\_\_ IMPLEMENTATION \_\_\_\_**

<b>PROJECT TYPES</b>	<b>WATERBODY TYPES</b>	<b>NPS CATEGORY</b>
<input type="checkbox"/> STAFFING & SUPPORT	<input type="checkbox"/> GROUNDWATER	<input type="checkbox"/> AGRICULTURE
<input type="checkbox"/> WATERSHED	<input type="checkbox"/> LAKES/RESERVOIRS	<input type="checkbox"/> URBAN RUNOFF
<input type="checkbox"/> GROUNDWATER	<input type="checkbox"/> RIVERS	<input type="checkbox"/> SILVICULTURE
<input checked="" type="checkbox"/> I&E	<input type="checkbox"/> STREAMS	<input type="checkbox"/> CONSTRUCTION
	<input type="checkbox"/> WETLANDS	<input type="checkbox"/> RESOURCE
	<input type="checkbox"/> OTHER	EXTRACTION
		<input type="checkbox"/> STOWAGE/LAND
		DISPOSAL
		<input type="checkbox"/> HYDRO
		<input type="checkbox"/> OTHER

**PROJECT:** STATEWIDE **X** **LATITUDE** \_\_\_\_ **MIN.** \_\_\_\_ **LONGITUDE** \_\_\_\_ **MIN.** \_\_\_\_

**SUMMARIZATION OF MAJOR GOALS:** The following overall goal has been established for the NDWE: To increase the knowledge, understanding and appreciation of water resources through education related to nonpoint source pollution and its impact on North Dakota water resources, while also creating stewards that make informed decisions that reduce the number of impact occurrences and identify sustainable solutions to those impacts. The following action sub goals have also been established: 1) Develop and disseminate classroom ready and action-oriented water quality and nonpoint source pollution water science programs statewide; 2) Provide balanced nonpoint source pollution and water quality resource materials,

educational tools, professional services, and community support for programs that promote water resource science and education; and 3) Promote knowledge and understanding of human and natural environmental impacts within the watersheds of North Dakota through local, regional, and statewide education programs and opportunities.

**PROJECT DESCRIPTION:**

NDWE raises awareness and access to solutions to eliminate NPS pollution and water quality issues throughout the state. NDWE uses Project WET resources and materials when developing and delivering water quality and nonpoint source pollution education. Project WET is a non-profit interdisciplinary curriculum-based water education program for formal and non-formal educators, adults, and young people in grades K-12. NDWE uses Project WET as a resource to deliver water education to schools and communities through extensive published resource materials, training workshops, graduate institutes, organized community water festivals, water events, and a variety of media outlets that promote awareness and understanding of diverse water topics (e.g., watersheds, nonpoint source pollution, and water quality) locally, nationally, and internationally. Other materials and resources, developed by the NDDWR Planning and Education Division, are supplemental to Project WET resources in achieving our water education efforts.

NDWE focuses on developing innovative, interactive, hands on and user-friendly water related activities that address current water issues with water quality, nonpoint source pollution, and stewardship of water resources. The curriculum has direct correlation to state and national education standards and creates a link between educators, resource professionals, and scientists.

NDWE uses educational programs, resources, and materials to facilitate and promote learning, awareness, knowledge, exploration, and stewardship of North Dakota water resources. Programs are carried out through the development of both indoor and outdoor experiences in an age appropriate, nonbiased manner that promotes critical thinking and problem-solving skills.

**319 funds requested: \$ 191,459; Match \$ 127,639**

**Other Federal Funds: \$0. 319 Funded Fulltime personnel: 1.**

**Total Project Cost: \$ 319,098**

## **2.0 STATEMENT OF NEED**

**2.1** The North Dakota Department of Environmental Quality has identified the need to deliver a balance of information and education throughout the state of North Dakota as a critical component of the NPS Pollution Management Program. Water quality and NPS pollution programs serve as integral components in raising awareness and understanding of North Dakota's water resources, the importance of water in people's day to day lives, and they examine current water issues – providing solutions for restoring water quality and eliminating the impact of NPS pollution on North Dakota's water resources. Through awareness and understanding, NDWE increases participation, knowledge, and appreciation for water resources. This inspires public support for the development and implementation of NPS pollution management measures and healthy water quality practices.

The following table outlines the programs supported by NPS pollution grants and how NDWE and Project WET fits this strategy by supporting and enhancing other 319 Grant recipients:

<b>Program</b>	<b>Primary Grade Level</b>	<b>Primary Audience</b>
<i>ND Water Education</i>	<i>K-12; Adults</i>	<i>Teachers and Students; Adults Statewide</i>
Prairie Waters Education and Research Center	K-12; Adults	Students, Teachers; Adults, Regionally
Project Learning Tree	K-6	Students and Teachers
Statewide Eco Ed	6-8	Students, Teachers, and Chaperones
ND Envirothon	9-12	Students, Teachers/Advisors

Although listed programs are not limited to a specific grade level, most of their programming is presented to the grade level(s) noted in the table above.

Each program serves a separate audience yet builds on the previous program creating a delivery network system. By using individual programs as building blocks, NPS pollution educational materials addressing impact and management solutions are being provided to a greater number of citizens over the entire span of their life.

NDWE provides the base of the “pyramid” upon which water quality NPS pollution education is implemented in North Dakota for the targeted ages. NDWE is a statewide service provider and is the only hands-on water quality/NPS pollution education program that is delivered to schools and communities through extensive published resource materials, training workshops, graduate institutes, organized community water festivals, water events, and a variety of interactive online resources that promote awareness and understanding of diverse water topics (e.g., watersheds, non-point source pollution, and water quality).

NDWE believes that through the efforts of the education and water resource management entities, formal and non-formal educators, adults, and young people, will be filled with curiosity and appreciation for the importance of water quality NPS pollution mitigation. Through this learning, there is knowledge and awareness that inspires positive water use, promotes involvement, and fosters action in a variety of water quality NPS pollution projects in their homes, schools, and communities. This increases the probability of a life-long commitment of stewardship for North Dakota's water resources.

For an overview of delivery options, including water education programs for K-12 educators, facilitators, natural resource personnel, youth, and all North Dakota citizens (see the Appendix). In general, opportunities include workshops, institutes, web-based resources, festivals, and community events.

**2.2** NDWE targets the following youth groups and those groups or individuals that work with youth:

- K-12 public and private classroom teachers
- Preschool and daycare educators
- Youth organization leaders (i.e., 4-H, scouts, church, etc.)
- Preservice faculty and students
- Resource agency educators and outreach specialists
- Natural resource program educators
- Local, state, and federal park interpreters and rangers
- Home-school educators
- Corporate community educators
- Zoo educational staff
- Museum, nature, and science center staff
- K-12 students (all situations, groups, organizations, and functions)
- Community leaders
- Adults and general public

NDWE is dedicated to increasing the knowledge, understanding, and appreciation of water resources through education related to nonpoint source pollution and its impact on North Dakota water resources. While also creating stewards that make informed decisions that reduce the number of impact occurrences and identify sustainable solutions to those impacts.

### **3.0 PROJECT DESCRIPTION**

**3.1 Project Goals:** The following overall goal has been established for NDWE: To increase the knowledge, understanding and appreciation of water resources through education related to nonpoint source pollution and its impact on North Dakota water resources, while also creating stewards that make informed decisions that reduce the number of impact occurrences and identify sustainable solutions to those impacts. The following action sub goals have also been established:

- 1) Develop and disseminate classroom ready and action-oriented water quality and nonpoint source pollution water science programs statewide;
- 2) Provide balanced nonpoint source pollution and water quality resource materials, educational tools, professional services, and community support for programs that promote water resource science and education; and
- 3) Promote knowledge and understanding of human and natural environmental impacts within the watersheds of North Dakota through local, regional, and statewide education programs and opportunities.

**Objectives/Tasks:** Specific objectives and underlying tasks for the FY 2025 NPS Pollution Project Implementation Plan (PIP) for the period of July 1, 2025 - June 30, 2027 are defined in this section.

**Objective 1.**

Provide NDWE management and support systems to develop and deliver effective NPS pollution water quality, water education, and water science programs. **(\$181,031).**

**Task 1.** Employ a project manager and incorporate other non-state employees (Project WET facilitators) to provide necessary management and direction for implementation and delivery of project objectives and tasks. Includes travel/per diem and costs associated with onsite and offsite delivery of project programs for the project manager and non-state employees (25-35 facilitators).

Product: Personnel for ongoing program development, management, and implementation of project.

Cost: 173,748

**Task 2.** Finance the cost of supplies, materials, and equipment to participating educators and students (miscellaneous supplies, postage to send educational material to sites, printing of educational and supporting materials, and equipment, etc.).

Product: Provision of necessary resources, supplies, and materials to educators and youth for administration of the Project WET NPS pollution solution and water quality programing.

Cost: \$ 7,283

**Objective 2.**

Maintain classroom-ready and STEM (Science, Technology, Engineering, and Mathematics) based teaching aids in support of Project WET educational efforts (**\$31,885**).

**Task 3.** Maintain six NDWE NPS pollution solutions and water quality educational trunks (description in Appendix).

Product: Educator/youth interactive participation with use of trunks.

Cost: \$ 8,094

**Task 4.** Maintain water quality and NPS pollution solutions, hands-on curriculum and other NPS pollution water education materials and resources (Project WET Activity Guides 2.0 supplemental Project WET materials: water quality resource education curriculums, and NPS pollution water quality materials) for K-12 formal and non-formal educators and youth.

Product: Easy to use, hands-on, innovative curriculum, interactive web-based learning programs; supplemental resources; balanced and interactive NPS pollution water quality resources; and water science education resource materials for K-12 formal and non-formal educators and youth.

Cost: \$ 21,606

**Task 5.** Purchase new and maintain existing indoor and outdoor water quality training and education resources (water quality chemical, biological, physical monitoring resources, hip/boot/chest waders, other appropriate NPS pollution and water quality equipment, materials and resources that enhance NPS pollution solutions and water quality education).

Product: Methods to educate and monitor NPS pollution solutions and water quality for all types of real-world water resource environments in North Dakota.

Cost: \$ 2,185

**Objective 3.**

Complete water quality NPS pollution solutions educational opportunities for 28,290 K-12 formal and non-formal educators, youth, and adults to expand their knowledge and understanding of water quality NPS pollution solutions resource issues in North Dakota (**\$71,666**).

**Task 6.** Provide and complete varying level non-credit and credit facilitator led Project WET water quality NPS pollution solutions educational programs (in-service and pre-service) for 290 formal and non-formal K-12 educators (includes stipend but does not include travel and per diem costs of non-state employees).

Product: 290 formal and non-formal K-12 educators who gain a knowledge, appreciation and understanding of ND water quality NPS pollution solutions issues.

Cost: \$9,560

**Task 7.** Provide funds to selected organizations to promote, develop, and complete twenty-two community NPS pollution solutions water quality education festivals for 18,000 youth (Make A Splash with Project WET festivals).

Product: Completion of twenty-two community and area-wide, high- profile and balanced educational NPS pollution solutions water quality education festivals for 18,000 middle and upper elementary youth and their teachers, thereby increasing appreciation, knowledge, understanding and appreciation of ND water quality NPS pollution solutions issues.

Cost: \$ 28,337



**Task 8.** Provide and complete water quality NPS pollution solutions education programs for 10,000 K-12 youth at camps, school water education programs, and other community environmental education events for youth and adults addressing NPS pollution and water quality issues (includes stipend but does not include travel and per diem of non-state employees – Project WET facilitators). Costs provide funding to only pay trained Project WET facilitators a stipend to help develop and complete these programs. Costs do not include any funding for Project WET Coordinator.

Product: Completion of Project WET water quality NPS pollution programs for 10,000 K-12 youth at camps, school water education programs, water festivals and other youth and adult NPS pollution and water quality community education events.

Cost: \$ 12,745

**Task 9.** Develop and implement a total of one Discover Today's Watershed Institute for 30 formal and non-formal K-12 educators with three or four graduate credits (includes stipend but does not include travel and per diem for non-state employees – Project WET facilitators). Costs provide funding to pay NDWE facilitators a stipend to help complete these institutes. Costs do not include any funding for NDWE Coordinator.

Product: 30 educators who gain an in-depth knowledge, appreciation and understanding of contemporary North Dakota watershed, water quality, and NPS pollution solutions issues.

Cost: \$ 17,837

**Task 10.** Fund two statewide water education poster contests for 5,000 grade 6 youth with the theme of "Help Prevent Runoff Pollution."

Product: 5,000 grade 6 students receive an opportunity to develop fine art skills while depicting their understanding of NPS pollution solutions and water quality issues.

Cost: \$ 3,187

**Objective 4.**

Maintain the NDWE facilitator network of 25-30 formal and non-formal trained educators who help promote and enable Project WET water quality NPS pollution solutions educational resources, materials, and opportunities to be delivered statewide to teachers and youth (**\$21,243**).

**Task 11.** Maintain the NDWE water quality NPS pollution solutions trained network of 25-30 formal and non-formal facilitators, including recognition and incentive programs for facilitators.

Product: Methods to maintain existing facilitator network of 25-30 active facilitators and materials to recognize and provide incentives (awards, items with logo and years of service, educational materials, participation in educational opportunities, and networking) to the NDWE facilitator network.

Cost: \$10,834

**Task 12.** Complete two statewide facilitator leadership training workshops for 20 additional K-12 formal and non-formal educators.

Product: 20 additional motivated and trained K-12 formal and non-formal educators to promote and deliver NDWE NPS pollution educational resources, materials, and programs across North Dakota.

Cost: \$ 10,409

**Objective 5.**

Provide a method of ongoing monitoring, evaluation, oversight, and direction through four Advisory Committee meetings and through evaluation of Project accomplishments, objectives, task outputs and benefits. (**\$3,035**).

**Task 13.** Complete four Advisory Committee meetings to monitor, evaluate, and provide direction for NDWE programs.

Product: Method to monitor, evaluate and provide direction to NDWE objectives and tasks through four Advisory Committee meetings.

Cost: \$ 1,730

**Task 14.** Complete various methods to track and measure (evaluate) Project objectives, task outputs, benefits, and accomplishments.

Product: A better understanding of how educational materials are being used/received and direction for development of additional resources to address underperforming portions of the program.

Cost: \$ 1,305

**Objective 6.**

Develop and implement the use of technology to promote web-based resources, materials, and innovative interactive programs that facilitate discovery, knowledge, understanding, and appreciation of NPS pollution and water quality impacts, and encourage K-12 educators, youth, and adults to take action in sustainable solutions. **(\$10,238).**

**Task 15.** Maintain and improve for NDWE to enhance delivery of resources and materials to K-12 educators, youth, and adults.

Product: A dynamic web page linking to interactive learning programs and resources.

Cost: \$ 4,872

**Task 16.** Purchase and maintain technology (including various types of applications and software) and equipment (touchscreen interfaces for 24" imac, ipads, and supporting hardware) to support the delivery of web-based learning of NPS pollution and water quality programs.

Product: Innovative tool that allows K-12 educators, youth, and the public to experience STEM-based learning of NPS pollution and water quality issues and solutions.

Cost: \$ 5,366

**3.3 MILESTONE TABLE FOR NORTH DAKOTA WATER EDUCATION (NDWE) WATER QUALITY NONPOINT SOURCE POLLUTION (NPS) EDUCATION PROGRAM**  
**July 1, 2025 - June 30, 2027**

<b>PROJECT OBJECTIVE AND TASKS</b>	<b>RESPONSIBLE ORGANIZATIONS</b>	<b>OUTPUT</b>	<b>YEAR 1 - 2 July 1, 2025 - June 30, 2027</b>
<b>OBJECTIVE 1: MAINTAIN NDWE MANAGEMENT AND SUPPORT SYSTEMS.</b> <b>Task 1:</b> Employ a Project Manager. a. Salary/Fringe b. Travel/Per Diem (includes non-state employees = facilitators)	NDDWR/Project Manager	Project staff and project facilitators	Ongoing – July 1, 2025 - June 30, 2027
<b>Task 2:</b> Maintain cost of support services. a. Office Equipment/Supplies b. Postage/Printing c. Miscellaneous Supplies	NDDWR/Project Manager	Project support services	Ongoing - July 1, 2025 - June 30, 2027
<b>OBJECTIVE 2: MAINTAIN CLASSROOM – READY TEACHING AIDS.</b> <b>Task 3:</b> Maintain Six Project NDWE and NPS pollution water quality trunks and exhibits.	NDDWR/Project Manager	Use and maintenance of project trunk/exhibits	Ongoing – July 1, 2025 - June 30, 2027
<b>Task 4:</b> Maintain Project WET NPS pollution water quality curriculum and educational materials. a. National Project WET Activity Guides 2.0 b. National Project WET Portal c. National Project WET supplemental water education materials d. Other water quality NPS pollution education materials and curriculum.	NDDWR/Project Manager	Purchase and maintenance of project NPS pollution and water quality educational materials and resources	Ongoing – July 1, 2025 - June 30, 2027

PROJECT OBJECTIVE AND TASKS	RESPONSIBLE ORGANIZATIONS	OUTPUT	YEAR 1 - 2 July 1, 2025 - June 30, 2027
<p><b>Task 5:</b> Purchase new and maintain existing indoor and outdoor water quality NPS pollution education and training resources.</p> <ul style="list-style-type: none"> <li>a. Repair and restock existing water quality test kits.</li> <li>b. Repair and replace hip boots/chest waders.</li> <li>c. Purchase other NPS Pollution water quality education resources.</li> </ul>	NDDWR/Project Manager; Contracted Project WET Facilitator	Purchase and maintenance of NPS pollution water quality indoor and outdoor materials	Ongoing – July 1, 2025 - June 30, 2027
<p><b>OBJECTIVE 3:</b> COMPLETE EDUCATIONAL OPPORTUNITIES FOR 28,290 K-12 FORMAL AND NON-FORMAL EDUCATORS, YOUTH AND ADULTS.</p> <p><b>Task 6:</b> Provide and complete varying level credit/non-credit educational programs for 290 formal and non-formal K-12 educators.</p> <ul style="list-style-type: none"> <li>a. 1 hour and variable hour In-service for educators</li> <li>b. 6 hour preservice workshops for educators</li> <li>c. 15 hour credit workshops involving educators</li> </ul>	NDDWR/Project Manager and Facilitators; Other Agencies, Organizations and Individuals	290 knowledgeable educators and students on NPS pollution solution water quality resources and water resource Issues	Ongoing – July 1, 2025 - June 30, 2027
<p><b>Task 7:</b> Provide funds to selected organizations to develop and complete 22 NPS pollution and water quality festivals (Make a Splash with Project WET) involving 18,000 third, fourth and fifth graders.</p>	NDDWR/Project Manager and Facilitators; Involved Organizations	Completion of selected NPS pollution water quality festivals for 18,000 students.	April/May 2025 through April/May 2027; September/October 2025 through September/October 2027
<p><b>Task 8:</b> Provide and complete varying level NPS pollution water quality education programs for 10,000 K-12 youth and adults at camps and school programs, other youth water education events and at public water education events.</p>	NDDWR/Project Manager and Facilitators; Other Involved Agencies and Organizations	10,000 knowledgeable K-12 students on NPS pollution and water quality Issues	Ongoing – July 1, 2025 - June 30, 2027

PROJECT OBJECTIVE AND TASKS	RESPONSIBLE ORGANIZATIONS	OUTPUT	YEAR 1 - 2 July 1, 2025 - June 30, 2027
<p><b>Task 9:</b> Develop and implement one Discover Today's Watershed Institute for up to 30 formal and non-formal K-12 educators (three or four graduate credits).</p>	<p>NDDWR Project Manager and Facilitators; Other Involved Agencies, Individuals and Organizations</p>	<p>In-depth understanding of contemporary ND watershed, nonpoint source pollution and water quality issues and concerns for 30 educators</p>	<p>Ongoing – July 1, 2025 - June 30, 2027</p>
<p><b>Task 10:</b> Develop and implement two statewide NPS pollution water quality education poster contests involving 5,000 grade 6 youth with a theme of "Help Prevent Runoff Pollution."</p>	<p>NDDWR/Project Manager; KNDC; Grade Six Teachers and Youth</p>	<p>5,000 grade 6 students improve understanding of NPS Pollution water quality impacts</p>	<p>January-April 2025 – January-April 2027</p>
<p><b>OBJECTIVE 4:</b> MAINTAIN FACILITATOR NETWORK AND RECOGNITION AND INCENTIVE SUPPORT SYSTEM OF 25-30 PROJECT WET FACILITATORS.</p> <p><b>Task 11:</b> Maintain facilitator network of 25-30 educators, and facilitator recognition and incentive programs.</p> <ul style="list-style-type: none"> <li>a. Facilitator recognition and incentive programs</li> <li>b. Attend Project WET promotional meetings and conferences.</li> </ul> <p><b>Task 12:</b> Complete two statewide facilitator leadership trainings for an additional 20 K-12 formal and non-formal educators.</p>	<p>NDDWR/Project Manager and Facilitators; Other Involved Agencies and Organizations</p>	<p>25-30 motivated and trained Project WET Facilitators to complete project objectives and tasks</p>	<p>Ongoing – July 1, 2025 - June 30, 2027</p>

PROJECT OBJECTIVE AND TASKS	RESPONSIBLE ORGANIZATIONS	OUTPUT	YEAR 1 - 2 July 1, 2025 - June 30, 2027
<p><b>OBJECTIVE 5:</b> PROVIDE A METHOD FOR ONGOING MONITORING, EVALUATION, OVERSIGHT AND DIRECTION THROUGH FOUR PROJECT WET ADVISORY COMMITTEE MEETINGS AND THROUGH EVALUATION OF PROJECT ACCOMPLISHMENTS, OBJECTIVES, TASK OUTPUTS, AND BENEFITS.</p> <p><b>Task 13:</b> Conduct four meetings of Project Advisory Committee</p>	NDDWR/Project Manager and Advisory Committee Members	Method to assess and evaluate project objectives and tasks through four meetings	Periodic as Needed - July 1, 2025 - June 30, 2027
<p><b>Task 14:</b> Complete various methods to track and measure (evaluate) Project objectives, task outputs, benefits, and accomplishments</p>	NDDWR/Project Manager; Project Facilitators; Project Program Participants; and Participating Organizations	Methods to track and measure project objectives and tasks through formal evaluation techniques	Periodic as Needed - July 1, 2025 - June 30, 2027
<p><b>OBJECTIVE 6:</b> DEVELOP AND IMPLEMENT THE USE OF TECHNOLOGY TO PROMOTE WEB-BASED RESOURCES, MATERIALS AND INNOVATIVE, INTERACTIVE PROGRAMS THAT FACILITATE DISCOVERY, KNOWLEDGE, UNDERSTANDING AND APPRECIATION OF NPS POLLUTION AND WATER QUALITY IMPACTS AND ENCOURAGE K-12 EDUCATORS, YOUTH AND ADULTS TO TAKE ACTION TOWARDS SUSTAINABLE SOLUTIONS TO THESE IMPACTS.</p> <p><b>Task 15:</b> Develop and maintain a web page and online resources for ND Project Wet water quality NPS pollution solutions that will improve and increase delivery of resources and materials to K-12 educators, youth and adults.</p>	NDDWR/Project Manager and Project Facilitators	A dynamic web page linking to interactive learning programs and resources that is provided to increase usage and exposure of Project WET resources.	Ongoing – July 1, 2025 - June 30, 2027
<p><b>Task 16:</b> Purchase and maintain technology and equipment to support dissemination of STEM based learning of NPS pollution, and water quality impacts/solutions.</p>	NDDWR/Project Coordinator and Project Facilitators	Innovative tool that allows K-12 youth, educators, and the general public to experience web based learning of NPS pollution and water quality issues and solutions.	Ongoing – July 1, 2025 - June 30, 2027

- 3.1** North Dakota Project WET (originally Water Education for Teachers) was developed and implemented in 1984 by the ND State Water Commission (NDSWC), and was the first program of its kind in the United States. Project WET is now an international program in over 60 countries. NDWE, through the ND State Water Commission (now called ND Department of Water Resources), has a proven history of developing and implementing comprehensive water quality NPS pollution programs for K-12 youth and adults. NDWE is the only statewide program in North Dakota that produces, uses, and delivers hands-on NPS pollution water quality and impact solution education programs to K-12 educators, adults, and youth.

#### **4.0 COORDINATION PLAN**

- 4.1** The NDDWR, 1200 Memorial Highway, Bismarck, ND 58504 is the lead sponsor of the NDWE Program. The NDDWR operates in pursuit of five main objectives:
- Effectively communicate with the public and stakeholders with a primary focus on collaboration and building partnerships.
  - Develop world-class, sustainable, and resilient water development and management practices.
  - Support beneficial use of Missouri River system water and other available water supply sources.
  - Implement innovative ideas, technology, and grow analytic capabilities to improve efficiencies in water management and development.
  - Improve the department's internal resilience and promote a positive culture.

In looking back at the beginning of this successful program, the 1983 water management plan public planning process determined that North Dakota's general public, as well as teachers and youth, knew very little about North Dakota watersheds, or water resource issues. As a result, a general adult and teacher water education program was initiated in 1984. During the period of 1985 through 1989, Project WET was developed and implemented by the NDSWC (now Department of Water Resources) using North Dakota water education materials and resources. The NDSWC's Project WET gained national attention and recognition and soon became a model for other states wanting to develop hands-on water resource education curriculum. In 1989, the NDSWC's Project WET program was pilot tested in Arizona, Idaho, and Montana. This successful pilot test was the basis for the development of the National Project WET Program.

The NDDWR began a far-reaching enhancement and expansion of its Project WET program in 1993 through the Section 319 Nonpoint Source Pollution Program of the Environmental Protection Agency. The NDDWR has a demonstrated and proven record of developing and implementing innovative water and water quality/NPS pollution programs in North Dakota since 1993.

The NDDWR is the only sponsoring organization for the administration, management, and implementation of the NDWE for teachers and youth in North Dakota. There are no other entities, either through formal or informal agreements, that sponsor the NDWE.

NDWE is funded partly with a Section 319 EPA Nonpoint Source Pollution Grant administered through the North Dakota Department of Environmental Quality (NDDEQ) and sanctioned by the ND Nonpoint Source Task Force (NDNPSTF). A Section 319



NPS Pollution Project Implementation Plan (PIP) is submitted to both the NDDEQ and the NDNPSTF on a biennial basis. The NDDWR and the NDDEQ enter into a contract which formalizes the pass through of Section 319 NPS Pollution EPA funds and delineates the responsibilities of each organization in the delivery of the NDWE program. North Dakota Water Education is also funded through state funds, fees charged to educators attending graduate credit programs, and non-federal match.

- 4.2** Since 1984, North Dakota Project WET has had the support of local water, environmental, and education organizations. The North Dakota Water Resource Districts and North Dakota Water Users Associations have been instrumental in providing time, energy, and in certain instances, financial support to NDWE. Since 1993, the ND Water Education Foundation has supported the water education programs of NDWE with collaborative discussions. The local nine-teacher learning centers (now completed through the statewide teacher center network) in North Dakota have provided their support of NDWE by helping promote its educational opportunities to K-12 educators statewide.

The ND Department of Public Instruction and the ND Educational Standards and Practices Board have provided support through alignment of NDWE credit programs with current K-12 educator continuing education requirements (e.g. No Child Left Behind). The institutions of higher education, which provide graduate credit for NDWE workshops and institutes, have also aligned NDWE credit opportunities in the core subject areas to meet K-12 educator certification standards. Teacher education associations and organizations (ND Education Association, ND Science Teachers Association, ND Geographic Alliance,) have supported NDWE through ongoing invitations for NDWE to provide educational displays and presentations at association/organization meetings. Local school districts have requested NDWE educational opportunities to be presented at their schools. Natural resource agencies (US Geological Survey, Soil Conservation Districts, ND Parks and Recreation Department, North Dakota State University Extension Service, etc.) have asked NDWE to complete collaborative educational programs. Various other community and natural resource organizations have expressed their desire for NDWE to be involved in their environmental education efforts (Dakota Zoo, River Keepers, Dakota Science Center, Bismarck Public School System, Morton County Soil Conservation District, Gateway to Science, ND Outdoor Learning Centers, Prairie Waters Education and Research Center, Sully's Hill Natural Resources Program, etc.).

The NDWE has a long history of coordination, cooperation, networking, and interfacing with a wide array of local, state, and federal water and natural resource related agencies, organizations, associations, and programs in North Dakota, and many at the national level. NDWE has also been connected closely with the educational and environmental education community in North Dakota. The success has been dependent upon this cooperative spirit. It has long been realized that the NDWE, in carrying out its mission of water quality NPS pollution education for K-12 educators and youth, must aggressively pursue coordinated resources, expertise and active participation of a wide array of educational, and water natural resource and environmental education entities.

**Educational:** NDWE fosters formal and informal communication and networking with a host of educational linkages. These collaborations provide for the promotion of NDWE opportunities in school districts statewide. The program communicates on a regular basis with Minot State University, Dakota College of Bottineau, NDSU and UND continuing education departments regarding course proposal, cost, and credit requirements for each of the institutions. Much of the water education formal educator offerings are accredited through these departments in their respective institutions. NDWE with the ND Department of Public Instruction and the ND Educational Standards and Practices Board make sure its water education credit offerings meet current ND and national education standards that benefit ND formal K-12 educators. NDWE collaborates with the education departments and promotes water education programs for preservice teachers at two ND colleges and universities.

NDWE has built linkages with the ND Education Association, the ND Science Teachers Association, the ND Home Educator's Association, the ND Geographic Alliance, the ND Reading Association, the ND Principals Association, the ND Superintendents Association, and the ND Health and Physical Education Association. Promotional displays and educational presentations have been completed at many of these association annual conferences since the late 1980s. NDWE has participated in the annual State Science and Engineering Fair since 1996 by providing awards for the best water quality NPS pollution projects in the junior and senior student divisions.

**Water and Natural Resources:** NDWE continues to interface, collaborate, and network with the ND water and natural resource community. NDWE involves all the following agencies or organizations at various times in developing and completing its educational programs for K-12 educators and youth. Included are the ND Department of Water Resources, the ND Water Resource Districts and Water Users Associations, the ND Water Coalition, the ND Water Education Foundation, the ND Soil Conservation Districts Association, the ND Department of Environmental Quality, the US Geological Survey, the US Bureau of Reclamation, the US Fish and Wildlife Service, the US Natural Resources Conservation Service, the US Army Corps of Engineers, the ND Forest Service, the ND Parks and Recreation Department, the Historical Society of ND, the ND Game and Fish Department, and ND Soil Conservation Districts.

**Business and Industry:** ND Water Education collaborates and networks with a wide variety of private business and industry in the development and implementation of the summer watershed institutes. Each summer institute covers NPS pollution water quality goals and tours of energy, irrigation, agricultural processing, and other ND industries. The project manager meets with other managers and public relations staff of these industries to promote water quality NPS pollution education for teachers and students. Water quality NPS pollution and water use in action is a very important educational component of NDWE. Each institute introduces as many as three to seven new industries/businesses to teachers attending the institute.

**Environmental Education:** NDWE continues to collaborate and network with the environmental education organizations in ND. One of the most important is the Coalition for Conservation and Environmental Education (C<sup>2</sup>E<sup>2</sup>). NDWE has been involved with this organization since it was initiated in 1995. Meetings have been attended and NDWE has been involved in helping complete all publications, resources, and projects produced or initiated through C<sup>2</sup>E<sup>2</sup>. North Dakota Water Education routinely collaborates with the coordinators of Project Learning Tree (PLT), Project Food, Land and People (FLP), Project WILD, and other major natural resource/environmental education programs in ND to support the education of K-12 educators and youth. Project WET continues to collaborate and network with the ND Outdoor Learning Centers, Sully's Hill Outdoor Learning Center. ND Water Education has been involved in the non-profit organization Keep North Dakota Clean (KNDC) since 1998. NDWE has helped sponsor their statewide environmental youth (grades 1-12) poster contest by sponsoring grade level six which has a NPS pollution water quality theme. NDWE has jointly coordinated programs with the girl and boy scout organizations, as well as 4-H youth in all these organizations. NDWE was involved in the planning and implementation of the *Red River and You* watershed education program sponsored by the Red River Basin Commission from 2002-2012. NDWE has been involved with the ND Soil Conservation Districts Eco-Ed youth environmental education program since 1996, having presented the water quality NPS pollution section at over 175 of these events.

NDWE has been involved with the planning and implementation of the ND Envirothon since 1999 and serves on its logistics and steering committee and helps develop the water quality NPS pollution (Aquatics) component of this program. Project WET has attended many of the Project WET USA national conferences since they were initiated in 1995. This involvement has provided an opportunity to network with and learn from the other state Project WET programs and how they implement water quality NPS pollution water education in their respective states. ND Water Education Program was involved in the development of the first Earth Day celebration in Bismarck in 2008, as well as subsequent events.

**Advisory Committee:** NDWE Advisory Committee has an important role in ongoing monitoring and evaluation of NDWE water quality NPS pollution education activities. The NDWE Coordinator networks and collaborates with this Committee on an ongoing basis. All Advisory Committee members are NDWE facilitators and are actively involved in ongoing monitoring and evaluation through personal participation in NDWE programming. Monitoring and evaluation through the Advisory Committee is completed through e-mail, zoom, Teams meetings, phone calls, and regular meetings.

NDWE programming described in this plan are reviewed by the Advisory Committee. The

Advisory Committee can recommend changes in planned programming because of their review. The Project Coordinator has final overall responsibility in direction of planned programming.

The primary role of the Advisory Committee is to:

- Assist in determination of program and resource needs and the monitoring and evaluation of NDWE and its overall programs, activities, and accomplishments;
- Provide consultation and technical assistance in the implementation, maintenance, and direction for NDWE ;
- Assist in coordinating and networking the NDWE Program with educational and water communities at all levels and with other water-related and environmental education providers and programs;
- Assist in stimulating school, teacher and youth, natural and water resource, and public leader interest in NDWE.

NDWE Advisory Committee members are recruited from: Dakota College of Bottineau, ND Public Schools, River Keepers, ND State University, ND Department of Environmental Quality, University of ND, and Minot State University.

- 4.2** NDWE is involved in, and collaborates with, all other information/education 319 NPS pollution funded programs in North Dakota as part of the North Dakota Nonpoint Source Pollution Management Program plan for information and education goal and objectives. NDWE is recognized in the North Dakota Nonpoint Source Pollution Management Program plan for its unique water quality education program and unique placement in the water quality NPS pollution education program in North Dakota. There are no other similar 319 NPS pollution funded programs in North Dakota. Therefore, there is no duplication or replication of 319 NPS pollution funding.

## **5.0 EVALUATION AND MONITORING PLAN**

NDWE utilizes a variety of organizations, which aid in monitoring and evaluating the extent of success in meeting the goals, objectives, and tasks as delineated in this plan. These include: 1) the Advisory Committee; 2) teachers and youth involved in utilizing or attending NDWE water quality NPS initiatives; 3) water related agencies, organizations or associations directly and indirectly participating in NDWE water quality NPS initiatives; 4) schools and higher education institutions sponsoring programs or credit courses; 5) NDWE facilitators; 6) the NDWE Coordinator through the 319 Nonpoint Source Pollution Project Implementation Plan; and 7) the ND State Department of Water Resources.

The following depicts specific methods that will be used to track and measure progress and benefits to targeted groups served by the NDWE. Described will be specific actions/measures (what, when, where, and how) that will be used to evaluate and monitor progress toward accomplishment of task outputs and objective endpoints. The NDWE will use questionnaires/surveys and audience feedback to: 1) track the degree to which teachers are satisfied with training received and their planned use of NDWE resources, materials and training in the classroom; 2) evaluate planned changes in student and teacher understanding; and 3) document participant numbers and satisfaction with the Program.

Since the start of the NDWE NPS Pollution Water Quality Program for Teachers and Youth in 1993, exit surveys have been provided to all educators that have completed a one, two, three, and four credit graduate level workshop or institute. These surveys have provided objective information and evaluation on teacher learning obtained from all educational components instructed, the educational quality and usefulness of materials and resources provided, the quality of the instructors, the quality and usefulness of the methods and techniques of instruction, the overall value of the workshop/institute to their school curriculum standards, and grade and subject levels taught and their planned use of materials in their classroom with students. These exit surveys will be continued, and results (located in appendix) will be incorporated into the annual report for the Section 319 grant.

Some youth programs (water festivals, eco-ed programs, environmental festivals, Earth Day, etc.) that the NDWE is involved in, but is not the primary organizer, generally complete exit surveys of the various groups involved in the program (i.e. teachers, youth, volunteers, presenters, etc.). All NPS pollution programs that are organized and completed through NDWE, all participants are required to complete an exit survey which assesses learning and basic understanding of learned program components. These survey results will be incorporated into the annual report for the Section 319 grant.

## 6.0 PART ONE

### BUDGET TABLE FOR NORTH DAKOTA WATER EDUCATION WATER QUALITY/NPS POLLUTION EDUCATION PROGRAM FOR TEACHERS AND YOUTH July 1, 2025 - June 30, 2027

PROJECT YEAR	JULY 1, 2025 – JUNE 30, 2026	JULY 1, 2026 – JUNE 30, 2027	JULY 1, 2025 – JUNE 30, 2027 TOTAL
EPA REQUESTED	\$95,729	\$95,730	\$191,459
STATE FUNDS	\$63,820	\$63,819	\$127,639
TOTAL PROJECT COSTS	\$159,549	\$159,549	\$319,098

**6.0 PART TWO**  
**BUDGET TABLE FOR WATER EDUCATION WATER QUALITY/NPS POLLUTION EDUCATION**  
**PROGRAM FOR TEACHERS AND YOUTH**  
**July 1, 2025 - June 30, 2027**

<b>PROJECT OBJECTIVES AND TASKS</b>	<b>FEDERAL 319 FUNDS 25-27</b>	<b>MATCHING FUNDS 25-27</b>	<b>TOTAL FUNDS 25-27</b>
<b>OBJECTIVE 1:</b> PROJECT MANAGEMENT AND SUPPORT SYSTEMS.	<b>\$108,619</b>	<b>\$72,412</b>	<b>\$181,031</b>
<b>Task 1:</b> Employ a Project Manager	<b>104,249</b>	<b>69,499</b>	<b>173,748</b>
a. Salary/Fringe	78,122	52,082	130,204
b. Travel/Per Diem (including non-state employee facilitators)	26,126	17,418	43,544
<b>Task 2:</b> Maintain cost of support services.	<b>4,370</b>	<b>2,913</b>	<b>7,283</b>
a. Office Equipment/Supplies	874	582	1,456
b. Postage/Printing	2,185	1,457	3,642
c. Miscellaneous Supplies	1,311	874	2,185

<b>PROJECT OBJECTIVES AND TASKS</b>	<b>FEDERAL 319 FUNDS 25-27</b>	<b>MATCHING FUNDS 25-27</b>	<b>TOTAL FUNDS 25-27</b>
<b>OBJECTIVE 2: MAINTAIN CLASSROOM – READY TEACHING AIDS</b>	<b>\$19,131</b>	<b>\$12,754</b>	<b>\$31,885</b>
<b>Task 3:</b> Maintain Six Water Education Trunks.	<b>4,856</b>	<b>3,238</b>	<b>8,094</b>
<b>Task 4:</b> Maintain NDWE curriculum/educational materials.	<b>12,964</b>	<b>8,642</b>	<b>21,606</b>
a. National Project WET Activity Guide	2,981	1,988	4,969
b. National Project WET supplemental water education materials	8,944	5,963	14,907
c. Other water quality NPS Pollution education materials	1,038	692	1,730
<b>Task 5:</b> Purchase new and maintain existing indoor/outdoor water quality NPS pollution education and training resources.	<b>1,311</b>	<b>874</b>	<b>2,185</b>
a. Repair and restock existing water quality test kits.	406	271	677
b. Purchase other water quality NPS pollution education/training resources.	905	603	1,508



PROJECT OBJECTIVES AND TASKS	FEDERAL 319 FUNDS 25-27	MATCHING FUNDS 25-27	TOTAL FUNDS 25-27
<b>OBJECTIVE 3:</b> COMPLETE EDUCATIONAL OPPORTUNITIES FOR 28,290 K-12 FORMAL AND NON-FORMAL EDUCATORS, YOUTH AND ADULTS	<b>\$42,999</b>	<b>\$28,667</b>	<b>\$71,666</b>
<b>Task 6:</b> Provide and complete varying level credit and non-credit educational programs for 290 formal and nonformal educators.	<b>5,736</b>	<b>3,824</b>	<b>9,560</b>
a. 1 hour workshops for 200 educators	1,319	879	2,198
b. 6 hour non-credit preservice workshops for 60 educators	115	77	192
c. 15 hour credit workshops involving 30 educators	4,302	2,868	7,170
<b>Task 7:</b> Provide funds to selected organizations to develop and complete 22 water quality and NPS pollution festivals (Make A Splash with Project WET) involving 18,000 third, fourth and fifth graders.	<b>17,002</b>	<b>11,335</b>	<b>28,337</b>
<b>Task 8:</b> Provide and complete varying level NPS pollution and water quality education programs for 10,000 K-12 youth and adults at camps/school programs, other youth water education events and public water education events.	<b>7,647</b>	<b>5,098</b>	<b>12,745</b>

<b>PROJECT OBJECTIVES AND TASKS</b>	<b>FEDERAL 319 FUNDS 25-27</b>	<b>MATCHING FUNDS 25-27</b>	<b>TOTAL FUNDS 25-27</b>
<b>Task 9:</b> Develop and implement one Discover Today's Watershed Institute for up to 30 K-12 formal and nonformal educators (three or four graduate credits).	<b>10,702</b>	<b>7,135</b>	<b>17,837</b>
<b>Task 10:</b> Develop and implement four statewide NPS pollution water quality education poster contests involving 5,000 grade 6 youth with theme of "Help Prevent Runoff Pollution."	<b>1,912</b>	<b>1,275</b>	<b>3,187</b>
<b>OBJECTIVE 4:</b> MAINTAIN FACILITATOR NETWORK AND PROMOTIONAL SUPPORT SYSTEM OF 25-30 PROJECT WET FACILITATORS.	<b>\$12,746</b>	<b>\$8,497</b>	<b>\$21,243</b>
<b>Task 11:</b> Maintain facilitator network of 25-30 educators and facilitator recognition and incentive programs.	<b>6,500</b>	<b>4,334</b>	<b>10,834</b>
a. Facilitator recognition and incentive programs.	3,250	2,167	5,417
b. Attend Project WET promotional meetings and conferences.	3,250	2,167	5,417
<b>Task 12:</b> Complete two statewide facilitator leadership trainings for an additional 20 K-12 formal and nonformal educators.	<b>6,246</b>	<b>4,163</b>	<b>10,409</b>

<b>PROJECT OBJECTIVES AND TASKS</b>	<b>FEDERAL 319 FUNDS 25-27</b>	<b>MATCHING FUNDS 25-27</b>	<b>TOTAL FUNDS 25-27</b>
<b>OBJECTIVE 5:</b> PROVIDE A METHOD FOR ONGOING MONITORING, EVALUATION, OVERSIGHT AND DIRECTION THROUGH FOUR ADVISORY COMMITTEE MEETINGS.	<b>\$1,821</b>	<b>\$1,214</b>	<b>\$3,035</b>
<b>Task 13:</b> Conduct four meetings of NDWE Advisory Committee (see Appendix for current Advisory Committee members).	<b>1,038</b>	<b>692</b>	<b>1,730</b>
<b>Task 14:</b> Complete various methods to track and measure (evaluate) Project objectives, task outputs, benefits and accomplishments.	<b>783</b>	<b>522</b>	<b>1,305</b>
<b>OBJECTIVE 6:</b> DEVELOP AND IMPLEMENT THE USE OF TECHNOLOGY TO PROMOTE WEB-BASED RESOURCES, MATERIALS AND PROGRAMS FOR K-12 EDUCATORS, YOUTH AND ADULTS.	<b>\$6,143</b>	<b>\$4,095</b>	<b>\$10,238</b>
<b>Task 15:</b> Develop and maintain a web page for NDWE that will improve and increase delivery of resources and materials to K-12 educators, youth, and adults.	<b>2,923</b>	<b>1,949</b>	<b>4,872</b>
<b>Task 16:</b> Purchase and maintain technology and equipment to support dissemination of STEM-based learning.	<b>3,220</b>	<b>2,146</b>	<b>5,366</b>

<b>PROJECT OBJECTIVES AND TASKS</b>	<b>FEDERAL 319 FUNDS 25-27</b>	<b>MATCHING FUNDS 25-27</b>	<b>TOTAL FUNDS 25-27</b>
<b>TOTAL FUNDING</b>	<b>\$191,459</b>	<b>\$127,639</b>	<b>\$319,098</b>

## APPENDIX

### **PROJECT COMPONENT DESCRIPTIONS**

**Educational Resources and Materials** (Overall 80% directly related to NPS pollution, sustainable solutions and water quality issues through educator curriculum and activity guides, KIDS Youth Activity Booklets, educational trunks and water quality monitoring equipment.)

The centerpiece of the NDWE and Project WET curriculum is the Project WET K-12 Curriculum and Activity Guide which includes over 90 hands-on, active and innovative water and watershed activities that incorporate a variety of formats, such as large and small group learning, whole body activities, laboratory investigations, local and global topics, and involvement in community service projects. For more in-depth investigation of specific topics, NDWE provides resource/curriculum guides that supplement the Project WET guide. Some guides include an extensive resource and reference section, and all include hands-on activities. The format of the activities within each guide is modeled after the Project WET Guide. Current guides available are Discover A Watershed Missouri River Guide (thirty-six science-based, multidisciplinary, and hands-on activities including an extensive background section pertaining to the Missouri River watershed for grades 6-12); WOW! The Wonders of Wetlands Guide (forty hands-on multi-disciplinary activities and an extensive background section pertaining to wetlands for grades K-12); the Conserve Water Guide (fifteen hands-on, science based and multi-disciplinary activities and ten real life case studies for grades 6-12); Healthy Water Healthy People Water Quality Guide and Test Kit Manual (25 hands-on, multi-disciplinary and science-based activities and test kits for grades 6-12); and a Watershed Managers Guide (fifteen hands-on science-based and multi-disciplinary activities which provide real world watershed management challenges for grades 6-12.

NDWE also offers a comprehensive guide on how to develop and complete youth water festivals/celebrations, storybooks on the Rainstick and on Spring Water, and fun-filled Kids in Discovery (KIDS) activity booklets for youth on water conservation, water resources, stormwater, watershed protection, wetlands, water - every drop counts, oceans, big rivers, Red River of the North, groundwater and springs, Missouri River, water use, water quality, Lewis and Clark, fishing, Native waters, and many others. The KIDS activity booklets are each colorful, 16 pages, and include hands-on investigations, demonstrations, science experiments, science education, activities, and stories for grades 3-7.

In addition to the Project WET K-12 Curriculum and Activity Guide, the special topic-focused “water curriculum and activity guides” and youth activity booklets, NDWE offers educators and youth, water resource trunk programs (water pollution, water history), and water resource reference materials. NDWE offers supplemental water resource education posters, North Dakota water resource and specialized watershed maps, and supportive publications. Topics covered through NDWE include atmospheric, surface, and groundwater; water quality and quantity; watershed and water management; and water use protection and conservation. A supplemental North Dakota activity guide, the K-12 Wetland Discovery Guide, a North Dakota Water Resource and Reference Folder, a comprehensive guide on how to develop and complete a youth water festival/celebration, a Project WET Facilitator Handbook, a series of environmental education trading cards and wide array of observational, chemical, physical, and biological water quality investigation materials are also offered through NDWE. Correlated to Objective 2, Task 5.

**Education Programs for K-12 Formal and Nonformal Educators** (Overall 80% directly related to NPS pollution, sustainable solutions, and water quality issues through educator training at various lengths and intensity of programming.)

NDWE programs are designed to help youth learn how to think, not just what to think. The program provides a means for teachers and youth to grasp fundamental concepts related to water resources, water quality, watersheds, NPS pollution, and the environment. Through Project WET programs, teachers and youth obtain skills for acquiring knowledge, test and apply that knowledge, and evaluate the results of their actions.

NDWE programs are disseminated to K-12 formal and non-formal educators through a variety of types of educational options. These options vary from one to two-hour in-service sessions to single credit workshops, to five-day three graduate credit intensive summer institutes. Graduate credit offerings are partly a product of the history of continuing education policies by state universities and colleges, local school boards and school administration, the State Department of Public Instruction, the Educational Standards and Practices Board, and the needs of educators.

The major NDWE educational program options for K-12 formal and nonformal educators are:

**Inservice:** (80% directly related to NPS pollution, sustainable solutions and water quality issues.) Two-hour in-services are preferred although special three to four-hour topic or thematic workshops or programs can be completed. No university credit is available. Depending upon the school CEU's (Continuing Education Unit) and in-service credit may be available. Intended to introduce practicing educators to the Project WET curriculum/activity guides, KIDS water quality NPS pollution activity booklets and water quality testing materials. Correlated to Objective 3 Task 6.

**University Preservice** (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) Length of program variable and usually negotiated with university or college. Should be six hours in length to provide Project WET K-12 Curriculum Guide, KIDS (Kids in Discovery Series booklets) and North Dakota Activity Guides (water resource posters, brochures, flyers can be made available). Credit is through a university or college as a required or extra program option for preservice teachers. Intended to provide preservice educators with a basic understanding of Project WET curriculum/activity guides, KIDS water quality NPS pollution activity booklets and water quality testing materials. Correlated to Objective 3, Task 6.

**Six Hour Noncredit Workshop** (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) Generally, the minimum length workshop for participants to receive

national Project WET and North Dakota curriculum and activity guides, posters, and other water quality NPS education materials. No university credit is available. Depending upon school administration, recertification in-service credit may be available to formal educators. Intended to provide practicing educators with basic understanding of Project WET curriculum/activity guides, KIDS water quality NPS pollution activity booklets and water quality testing materials. Correlated to Objective 3, Task 6.

**Fifteen-Hour Credit Workshop** (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) One semester graduate credit available through Minot State University, UND, or NDSU. Participants receive appropriate national Project WET and North Dakota curriculum and activity guides, reference and resource materials, posters, water resource maps, and other education materials. Nine different credit workshop options are available: Project WET/Watershed Management; Project WET/Missouri River; Project WET/Water Celebration; Project WET/Water Quality (Healthy Water, Healthy People); Project WET/Wetlands; Project WET/Lewis and Clark; Project WET/Conserve Water Workshop; and Project WET/Red River Workshop. Many variations of the above options are also available based upon request of educators. Intended to provide practicing educators with a more in-depth understanding of North Dakota water quality NPS pollution issues and solutions through Project WET curriculum/activity guides, KIDS youth activity booklets, and water quality testing materials. Correlated to Objective 3, Task 6.

**Summer Watershed Institutes** (45 or 60 hour three or four credit institute) (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) NDWE offers five-day and six-day intensive summer institutes for educators and youth leaders. The Discover Today's Devils Lake, Northwestern ND Missouri River, and Mouse River Institutes offer three graduate credits while the Discover Today's Missouri River, James and Sheyenne Rivers, Southwestern ND Missouri River Watershed, and the Red River Institutes offer four graduate credits all through Minot State University, UND, and NDSU. Educators and youth leaders receive appropriate national Project WET and North Dakota curriculum and activity guides, reference and resource materials, posters, and other educational materials as indicated on the NDWE annual credit options flyer. Intensive water quality NPS pollution, sustainable solutions presentations, tour investigations, hands-on activities, and model demonstrations are included with these institutes.

Intended to provide an in-depth understanding and knowledge of watershed dynamics and management in relationship to water quality and NPS pollution, sustainable solutions and how water is used and treated in a watershed. Correlated to Objective 3, Task 19.

**Educational Programs for K-12 Youth and Adults** (Overall 80% directly related to NPS pollution, sustainable solutions, and water quality issues.) NDWE programs are disseminated directly to K-12 youth through a variety of educational options. The three primary types of options are: water festivals/celebrations; youth camps/events; and youth service or action projects. NDWE sponsorship or facilitation of K-12 youth NPS pollution sustainable solutions and water quality

issues in the past ten years has seen a very high growth. Thousands of youth every year hear the water quality NPS pollution education message through these programs.

**Water Festivals/Celebrations** (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) Water festivals/celebrations can be part day to multiple day events to educate youth (could include adults in the form of a Family Exploration Night) about the importance of keeping our water clean, protecting our water against NPS pollution and other water quality issues and problems in their lives. The particular length, type of program and grade levels of youth targeted to attend is tailored to meet the needs of the local sponsoring schools and organizations (Usually fourth or fifth grade youth but can be any combination of grade school youth).

Water festivals/celebrations can be held indoors and/or outdoors depending upon the timing and setting of the planned event. They can involve less than one hundred to over two thousand youth. Most events include hands-on Project WET and other classroom ready NPS pollution and other water-related activities, demonstrations, and exhibits. Large events can also include contests, games, a teacher resource areas, and NPS pollution related entertainment.

Large or small, the purpose of a water festival or celebration is to expose youth to a wide variety of NPS pollution and water quality and watershed pollution issues. Generally targeted to elementary to middle school youth, these NPS pollution water quality education events can involve a single school, community-wide schools, and/or area wide or regional schools.

The amount of planning and organizational time as well as financial commitment needed to complete a water festival or celebration depends upon the goals of the sponsoring school(s) or organizations(s) and can vary from low to high cost. NDWE is collaborating with an increasing number of potential sponsors to complete this type of NPS pollution water education program. NDWE has produced "Make a Splash with Your Own Water Festival" water festival guide for any school or organization that would like to develop and complete a NPS pollution water quality festival.

NDWE contracts with local sponsoring organizations to provide some of the funding to offset costs associated with contacting school administrators and educators within school systems, recruiting presenters, volunteers, and exhibitors; developing schedules and appropriate NPS pollution water quality hands-on activities; and promoting the water festival. The Make a Splash with Project WET and other non-funded water festivals is a critical component of the NDWE NPS pollution grant. The intent of the festivals is to educate North Dakota youth on NPS pollution, sustainable solutions, watersheds, and other water quality issues. Correlated to Objective 3, Task 7.

**Youth Camps/Youth Events** (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) NDWE participates in youth camps and youth events that promote their education in NPS pollution, sustainable solutions, and water quality issues. NDWE involvement can be indoor or outdoor, part-day to multi-day programs to inform and educate youth about the importance of water quality. Programs are generally tailored to meet the needs of the sponsoring youth organization in terms of length, intensity, and diversity of topics covered. These organizations can include boy and girl scouts, church sponsored youth programs, 4-H youth programs, science centers, museums, environmental learning centers, zoos, Soil Conservation District Eco-Ed programs, state park youth programs, community public sponsored youth programs and any type of youth gathering or function. As with water festivals/celebrations, youth camp, or youth event programs include Project WET and other hands-on classroom ready activities, exhibit areas, demonstrations, contests, and games focused on NPS pollution,



sustainable solutions, and water quality issues. Youth are exposed to selected activities that best meet the needs of the age group and organization.

Youth programs are generally attended by specific targeted youth through sponsoring organization enrollment and/or invitation. Youth camp/event vary in length of time and content depending upon sponsoring organization goals and participating presenters. Correlated to Objective 3, Task 8.

**Family Community Centered Programs** (80% directly related to NPS pollution, sustainable solutions, and water quality issues.) NDWE participates in family and community centered events. These events can be sponsored by governmental agencies, environmental organizations, science centers, zoos, schools and school PTOs, community public organizations, state parks, natural resource organizations, water resource management/delivery agencies and organizations, youth organizations, community clubs, university college events, and any other group interested in promoting NPS pollution, sustainable solutions, and water quality issues education.

Often, family and community programs are developed with youth water festivals, community art/craft shows, youth and community exhibitions, community recognition events, local historical events, youth camps, local, county or state fairs, and many other events. Or they can be developed as a stand alone program to educate the general public about NPS pollution, sustainable solutions, and water quality issues. Correlated to Objective 3, Task 8.

**Water Actions – Community Service Learning Projects** (90% directly related to NPS pollution, sustainable solutions, and water quality issues.) NDWE works with K-12 educators and youth to develop and complete NPS pollution, sustainable solutions, and water quality related community action/service learning projects. These projects get teachers and youth involved in tackling problems or issues, or that are aimed at improving an environmental setting. They are often most successful when they are focused on the local community. An action project can be simple or complex and can fit into a variety of educational settings. Many educators find that action education blends well with their regular teaching duties, while other educators choose to make it the basis for after-school sessions.

Action learning is also effective in nonformal settings. Nature centers, community water-related infrastructure and industry, zoos, scouting and 4-H programs, bible camps, community parks, public schools, and science centers all have strong potential for action projects. Community action and service learning projects related to water can include water quality issues education, best management practices education, water festivals, family or community centered education programs, community group presentations, trail work, litter patrols, developing a school environmental club, designating and protecting environmentally sensitive areas, implementing water conservation practices, riparian restoration projects, cleaning up a river, storm drain stenciling projects, fund-raising for cleaning up a water resource, water quality monitoring, replanting vegetation along waterways, cultural/historical designation of waterways, designing and developing a school nature site, assessing the total health of a watershed and its waterways, and many others. Projects can take place at home, in school, in the community, on the farm, or anywhere in a local watershed. Correlated to Objective 3, Task 8.

### **ND Water Education Programs for Early Childhood Educators:**

**Early Education Workshops** (90% directly related to NPS pollution sustainable solutions, and water quality issues.) Six hour workshop to train early childhood educators to provide water

based learning experiences for youth, ages 2-5. These experiences will promote creativity, wonder and curiosity to help foster a life-long understanding and appreciation for water resources.

### **ND Water Education Programs for all North Dakota Citizens:**

**Family and Community Centered Program** (80% directly related to NPS pollution, sustainable solutions, and water quality issues; 100% directly related to water education): NDWE participates in many family and community centered events. Often, family and community programs are developed with youth water festivals; community art/craft shows; youth and community exhibitions; community recognition events; local historical events; youth camp; local, county and/or state fairs; and many other events. They can also be developed as a stand-alone program to educate the public about water resource issues.

**Interactive Web-page and Online Resources** (90% directly related to NPS pollution, sustainable solutions, and water quality issues; 100% directly related to water education) NDWE will maintain interactive web pages allowing public access to water related Internet resources, publications, and interactive programs that promote education, understanding and participation in reducing NPS pollution impacts, and promoting healthy water quality practices.

Promoting action learning will become more accessible with technology and the development of interactive Internet resources now that Project WET USA provides a water education portal that is a dynamic Internet and interactive platform for educators and facilitators to participate in discussion groups and collaboration on water related issues such as water quality, water education, and nonpoint source pollution. Within the portal is a searchable index for activities by grade level, topic, and subject. Within the activity's sections, educators can download and upload content and find ideas for community-based action projects that move the learner from awareness to empowerment. This allows students, educators, natural resource agencies and communities to find ways to solve local water issues with sustainable solutions.

DiscoverWater.org (developed by Project WET) provides free interactive lessons and activities online to the public. DiscoverWater.org combines student friendly illustrations and animations with interactive, science-based lessons about the important roles that clean water plays in our lives. This resource is free to all who want to understand water as a resource through a variety of interactive lessons that cover topics such as nonpoint water pollution, water quality, the water cycle, and more. The web experience is another tool that brings water lessons to life in a way that makes learning fun and encourages today's youth to take action and become tomorrow's responsible stewards of North Dakota's water resources.

Project WET USA has also launched WETconnect. WETconnect allows students to engage in hands-on learning and self-led discovery, online, or offline. Water education comes to life with e-books, interactive lessons, games, quizzes, and more. Educators and students connect with one another and the world around them. Now everyone can experience Project WET's award-winning water education publications and activities anytime, anywhere. Those who wish to tryout WETconnect can sign up for a seven-day free trail.

### **PROJECT EVALUATION AND MONITORING PLAN ROLES AND RESPONSIBILITIES**

- 1) **ND Water Education Advisory Committee:** The NDWE Advisory Committee has a very important role in ongoing monitoring and evaluation of NDWE water quality NPS pollution education activities. The project manager completes an annual progress report on all activities scheduled to be started, developed and completed during that particular one year time period for review by the Advisory Committee. This report is also utilized as the annual progress report required by the 319 NPS pollution grant. All Advisory Committee members are NDWE facilitators and are actively involved in ongoing monitoring and evaluation through personal participation in NDWE activities. Monitoring and evaluation through the Advisory Committee is completed through e-mail, mail, phone, and the annual meeting.

NDWE activities described in this plan are reviewed by the Advisory Committee. The Advisory Committee can recommend changes in plan activities as a result of their review.

The primary objectives of the Advisory Committee are to:

- Assist in determination of program and resource needs and the monitoring and evaluation of NDWE and its overall programs, activities, and accomplishments;
- Provide consultation and technical assistance in the implementation, maintenance, direction, and future of NDWE;
- Assist in coordinating and networking with educational and water communities at all levels and with other water-related and environmental education providers and programs; and
- Assist in stimulating interest in NDWE.

- 2) **ND Department of Environmental Quality (NDDEQ)/Non-Point Source Task Force (NPSTF):** The NDDEQ has a mandated role in the monitoring and evaluation of all NDWE water quality NPS pollution goals, objectives, and tasks. As the lead agency responsible for the pass-through of funds from the EPA to the NDDWR, the NDDEQ is responsible to assure that all EPA requirements are met by the NDDWR as a recipient of Section 319 NPS pollution funds.

Some of these requirements include: 1) daily/monthly tracking of time and work duties allocated to the project; 2) completion and submittal of all semi-annual and annual project progress reports; 3) completion and submittal of quarterly Requests for Reimbursement for Section 319 federal funds; 4) signatory to, and approval of, the contract between the NDDEQ and the NDDWR, and 5) completion and submittal of any changes in project objectives and tasks along with monitoring overall project accomplishment.

The NDDEQ must also provide the NPSTF with reports on the progress of NDWE in meeting its stated project goals, objectives, and tasks and must develop rules and guidelines for NPSTF review of NDWE and other 319 NPS Pollution Project Implementation Plans.

- 3) **Teachers and Youth:** All NDWE graduate credit educational offerings provide teachers an opportunity to evaluate (on-site) educational offerings in which they participate. A formal evaluation questionnaire is provided to each participant that includes an evaluation of the reasons for attending, the most effective course components, an evaluation of the instructor(s)/facilitator(s), suggestions for improvements, and course relevance to local and statewide educational standards. Separate evaluations are developed for the NDWE summer institutes. Teachers also evaluate their satisfaction with Make A Splash water festivals and their effectiveness in increasing youth learning on water quality NPS pollution water issues provided through the festivals. Youth participating in these festivals and other jointly sponsored educational offerings are also given an opportunity to evaluate their own learning attained and the program itself.
- 4) **Water Related Agencies, Organizations and Associations:** NDWE provides an annual listing of its educational offerings and collaborative meetings to all water resource districts with an invitation to provide comments on this listing. All water resource districts and soil conservation districts also receive brochures and flyers on the NDWE program and credit educational offerings. Opportunity is provided for these organizations to make comments on the direction and effectiveness of NDWE
- 5) **Schools and Institutions:** School districts that sponsor/host an educator credit or youth program are given an opportunity to informally comment on the program and its effectiveness/contribution to teacher and student learning.

Minot State University, UND, and NDSU all have developed their own evaluation forms to provide their respective institutions with a formal method to look at all North Dakota educator credit offerings and their effectiveness in meeting educator learning standards. These and other institutions have invited NDWE to be a part of their preservice educational methods classes. This gives their students an opportunity to evaluate student learning and the effectiveness of the program taken.

- 6) **NDWE Facilitators:** All NDWE facilitators are involved in ongoing monitoring and evaluation as part of their participation in and utilization of NDWE educational offerings and materials. There are ongoing discussions through email, mail and telephone correspondence regarding the progress of NDWE in meeting the objectives and tasks described in the PIP. Nearly all members of the NDWE Advisory/Executive Committees are also NDWE facilitators. This provides an opportunity for these facilitators to have a major impact on overall NDWE effectiveness. Several facilitators participate in the annual training and evaluation meeting.
- 7) **ND Water Education Project Manager:** The manger is responsible for ongoing monitoring of the Project Implementation Plan (PIP) and for directing the overall monitoring and evaluation components described above. The director also completes semi-annual and annual progress reports as a requirement for the Nonpoint Source Pollution Task Force. The manager monitors the 319 NPS pollution grant monthly and quarterly expenditures. The project manager also submits an annual progress report to Project WET USA as its contribution for an overall national Project WET USA progress report.
- 8) **ND Department of Water Resources:** Ongoing meetings are held between the Planning and Education Division Director and the ND Water Education Program Manager regarding the status of Project WET, the NPS pollution grant, and what program changes, deletions, and/or additions should or could take place.