SECTION 319 NONPOINT SOURCE POLLUTION CONTROL PROGRAM
INFORMATION AND EDUCATION DEMONSTRATION PROJECT
FINAL REPORT

TERRY REDLIN FRESHWATER INSTITUTE
WETLAND EDUCATION PROGRAM PROJECT

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May 1, 2007

This project was conducted in cooperation with the South Dakota Department of Environment and Natural Resources and the U. S. Environmental Protection Agency, Region 8.

Grant # C9-99818503-0
EXECUTIVE SUMMARY

**Project Title:** Terry Redlin Freshwater Institute Wetland Education Program Project

**Grant #:** C9-99818503-0  **Grant Source:** Section 319 EPA

**Initiation Date:** April 9, 2004  **Expiration Date:** April 30, 2007

**FUNDING REQUESTED**

Total EPA Grant: Cash $70,000.00

Total Local Match: Cash $46,670.00

**TOTAL FUNDING $116,670.00**

**ACTUAL EXPENDITURES**

Expenditures EPA Funds $70,000.00

Expenditures Local Funds $80,987.63

**ACTUAL TOTAL EXPENDITURES $150,987.63**

EXECUTIVE SUMMARY

The project was completed to educate citizens near Watertown on the importance and value of wetlands. The project goal was amended from that in the proposed implementation plan. The amended workplan resulted in increased participation by area residents of all ages and accomplished more than was initially anticipated.

The educational program focused on the prairie wetlands, small streams and rivers of the Upper Big Sioux River watershed. The project was both rural and urban in scope and included wetlands within the city limits of Watertown as well as prairie potholes near the city. Activities completed are shown in the table below.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amended Milestone</th>
<th>Accomplished</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Trip Grades K-6</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Field Trip Grades 7-8</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>River Quest Class</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>School Class Presentations</td>
<td>144</td>
<td>140</td>
</tr>
<tr>
<td>Post Secondary Classroom</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Adult Seminars</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Media Contacts/Outreach</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>6th Grade Days</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td>Informative Brochures</td>
<td>4,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Internet Website</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Water Festivals</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Construction of a learning facility and wetland access site was postponed because of a lack of funding. The Redlin family proposed new covenants that were not acceptable to the South Dakota Department of Game, Fish and Parks. These two entities were to be the primary facility sponsors.

Many alternate-location wetland field trips were held on the grounds of the Redlin Art Center, where there are several wetlands and native grasses.

Effectiveness of the educational programs offered through the project is confirmed by an East Dakota Water Development District (EDWDD) survey that found Watertown residents are more informed than other urban areas in eastern South Dakota. (See EVALUATION section, page 12). The goal was attained as evidenced by the activities completed versus planned, the evaluation of the outcome of the activities and the EDWDD survey results.
INTRODUCTION

The project goal was:

“Make the public of Watertown and northeast South Dakota aware of the polluted and disappearing wetlands in the Prairie Pothole region.”

The initial concept for the Terry Redlin Freshwater Institute stemmed from public concern over environmental conditions in the Upper Big Sioux River Watershed. Wetlands have been drained, filled, paved over and built on. As a result, many of the lakes, rivers, and streams in the watershed have been subject to high rates of sedimentation, algal blooms, and fish kills that reduced their environmental and economic vitality. Fragile aquifer systems have been under increasing pressure from residential, agricultural, and commercial development.

In response to the impacts on water quality, concerned citizens, working with local, state, and federal agencies and organizations, developed the concept of the Terry Redlin Freshwater Institute. To be built on land purchased by the City of Watertown, the Institute was intended to showcase water-related resources not only in the Upper Big Sioux watershed, but throughout South Dakota. The resources included a mix of wetlands, lakes, rivers/streams and aquifers. In addition to a physical site, the Institute would serve as an education and outreach tool to promote greater awareness of the water-related resources found throughout the state. Based on the prototype developed, the program would expand state-wide. Toward that end, land was secured, a director hired, and construction of a building planned for 2008.

The land is located within the city limits of Watertown near Lake Kampeska. Lake Kampeska, also within the Watertown city limits and with over one hundred million dollars in real estate value, receives high levels of nutrients and sediment. It currently serves as a source of drinking water for the city. Loss of wetlands that provided water storage and filter systems have contributed to deteriorating water quality in Lake Kampeska as well as nearby Pelican Lake. The outdoor areas of the purchased property would serve as a tool to educate people on the benefits of wetland ecosystems.

The project provided on-site environmental education opportunities using the property owned by the Institute. A wide range of audiences was selected to achieve maximum exposure to residents of the watershed. Youth were a target audience for most of the activities completed during the project. The Institute formed partnerships with the Upper Big Sioux River Watershed Project and other agencies to provide a comprehensive educational program that can be taken off-site as an introduction to wetland ecology.
PROJECT GOALS, OBJECTIVES AND ACTIVITIES

The project goal was:

“Make the public of Watertown and northeast South Dakota aware of the polluted and disappearing wetlands in the Prairie Pothole region.”

The goal was attained by offering educational activities, hands-on water sampling, and information on the value of wetlands to clean water and wildlife.

A summary of project activities planned versus accomplished appears in Table 1.

Table 1. Planned Versus Accomplished Milestones.

<table>
<thead>
<tr>
<th>OUTPUT</th>
<th>MILESTONES</th>
<th>ORIGINAL</th>
<th>AMENDED</th>
<th>ACCOMPLISHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBJECTIVE 1 Develop Outdoor Area of Property</td>
<td>TASK 1 Education Prairie For Visitors</td>
<td>Product 1 Field Trips K-6</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 2 Field Trips 7-8</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 3 Field Trips 9-12</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 4 Field Trips College</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>OBJECTIVE 2 Coordinate &amp; Develop Program With Other Organizations</td>
<td>TASK 1. Expand “RiverQuest”</td>
<td>Product 1 “RiverQuest”</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TASK 2 Provide Teacher Resources</td>
<td>Product 1 Educators’ Fair</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>TASK 3 Interactive Teaching Techniques</td>
<td>Product 1 Primary/Secondary Classroom</td>
<td>75</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 2 Post Secondary Classroom</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>TASK 4 Outdoor Ed Opportunities</td>
<td>Product 1 Youth Tours</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 2 Adult Tours</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 3 Wetland Ed Packets</td>
<td>183</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 4 Adult Seminars</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 5 Media Contacts/Ed Outreach</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 6 6th Grade Environmental Days</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>TASK 5. Wetland Education Tools</td>
<td>Product 1 Brochures</td>
<td>2000</td>
<td>4000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 2 Adult Wetland Periodical</td>
<td>6900</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 3 Website</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Product 4 Water Festival</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
OBJECTIVE 1. Develop the outdoor areas of the purchased property to serve as a tool to educate people on the ecosystems of this area of South Dakota.

Task 1. Develop the Institute site as an education prairie where visitors would come face-to-face with native tallgrass and see wetland resources up close.

Product 1. Environmental Field Trips Grades K-6

Milestone: Planned - 21
Completed - 21
Outcome - The program provided 210 K-6th grade students the opportunity to learn about local wetland resources.

Most of the field trips were conducted in partnership with the Watertown Park and Recreation Department. Each summer the Park and Recreation Department conducts six weeks of summer programming. On Kids’ Fishing Day, held each week, the department brought local youth to the pond behind the Institute to fish. Institute staff was asked to conduct a wetland program as a part of the day’s activities. Through the program, groups of young people hiked around the pond to the riparian wetlands and were taught about wetland functions, values, wildlife and threats to wetlands.

A group of fifth grade students from an area elementary school studied wetlands and requested a wetland tour. The students were taken to nearby wetlands where they learned about wetland delineation, values, functions and wildlife. An additional eight field trips were conducted at the wetland areas located at the Redlin Art Center Conservation Park. The students were from schools visiting the art center and expressing an interest in a field experience in the park. The main focus of the programs was wetland wildlife.

Two field trips were conducted at the riparian wetlands near the current Institute location. Field trip participants learned about wetland classification, function, structure, and wildlife. To date, the Institute site has not been developed because of costs associated with installing infrastructure.

Product 2. Environmental Field Trips Grades 7-8

Milestone: Planned - 9
Completed - 18
Outcome - This program provided 180 grade 7-8 students the opportunity to learn about local wetland resources in person.

Most of these field trips were also conducted in partnership with the Watertown Park and Recreation Department. (See Field Trips K-6 above). Older students hiked to the riparian wetlands and were also taught about wetland functions, values, wildlife and threats to wetlands.
Product 3. Environmental Field Trips Grades 9-12

This product was deleted. Educators indicated they did not plan to use the field trips because of the limited number of field trip times allotted each year, and those opportunities had already been reserved for other destinations. In addition, this program was considered ‘outside the box’ by the school administration.

Product 4. Environmental Field Trips College Level

This product was deleted. The field trip was scheduled for the fall, 2004 Lake Area Technical Institute (LATI) Bio-Environmental program. LATI postponed the program until fall 2005. In addition, the program director did not feel the field trips fit the program curriculum.

OBJECTIVE 2. The Institute coordinated with and utilized local organizations and agencies such as the SD Game, Fish & Park Outdoor Campus, the US Fish and Wildlife education programs at Waubay National Wildlife Refuge and natural resource sites to provide further environmental education possibilities. The Institute worked with schools to provide educational opportunities about wetlands, rivers, lakes and other water resources.

Task 1. Participate in and help to expand Lincoln Elementary School “RiverQuest” to include third grade students in all area schools.

Product 1. RiverQuest Outdoor Class

Milestone: Planned - 1
Completed - 1
Outcome - The RiverQuest program provided 73 students the opportunity to study several aspects of water quality (turbidity, pH, etc.) and observe aquatic wildlife near the Big Sioux River and associated riparian wetlands.

The RiverQuest program was conducted September 27, 2004. Third-grade students from Lincoln Elementary participated in an afternoon of water-based learning along the banks of the Big Sioux River in Watertown. The Institute assisted with planning the event and provided a station that dealt with riparian wetlands. An established program for several years prior to 2004, RiverQuest ended that year because of staffing changes. Since Lincoln Elementary and the school district no longer offer this program, the milestone was amended to one.

Task 2. Hold education fairs at the Institute grounds to provide elementary and middle school teachers resources to take back to their classrooms.

Product 1. Educator’s Fair.

The task and product were deleted because of low interest. Teachers indicated they did not feel that the materials met state science standards and had concerns about the difficulty of starting new programs.
Task 3. Teach students about water, wetlands and wildlife using hands-on interactive teaching techniques in classrooms.

Product 1. Primary and Secondary School Classroom Presentations

Milestone: Planned - 144
Completed - 140
Outcome - The presentations resulted in 2,100 students learning about water and wetland issues beyond what is taught from a textbook. The presentations were designed to be hands-on and interactive and challenge the students to think about the water-based environment around them. A summary of the presentations appears in Table 2.

Table 2. Classroom Presentations

<table>
<thead>
<tr>
<th>Number</th>
<th>Grade Level</th>
<th>Location</th>
<th>Program</th>
<th>Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>K-6</td>
<td>Local Schools</td>
<td>Classroom</td>
<td>Watertown School District</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>Lincoln School</td>
<td>Classroom</td>
<td>Watertown School District</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Lincoln School</td>
<td>RiverQuest</td>
<td>Watertown School District</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>Waubay Wildlife Refuge</td>
<td>1,2,3 to the Refuge</td>
<td>U.S. Fish &amp; Wildlife</td>
</tr>
<tr>
<td>27</td>
<td>4</td>
<td>Aberdeen</td>
<td>Northern Prairie Water Festival</td>
<td>U.S. Fish &amp; Wildlife</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>Brookings</td>
<td>Big Sioux Water Festival</td>
<td>East Dakota Water Dev. Dist.</td>
</tr>
<tr>
<td>7</td>
<td>7-8</td>
<td>Watertown Middle School</td>
<td>Classroom</td>
<td>Watertown School District</td>
</tr>
<tr>
<td>5</td>
<td>9-12</td>
<td>Rosholt Schools</td>
<td>Classroom</td>
<td>Rosholt School District</td>
</tr>
<tr>
<td>3</td>
<td>9-12</td>
<td>Lake Area Tech Institute (LATI)</td>
<td>Equity Days</td>
<td>Watertown School District</td>
</tr>
<tr>
<td>23</td>
<td>K-6</td>
<td>Local Schools</td>
<td>Environmental Festival</td>
<td>Watertown School District</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>Watertown High School</td>
<td>Biology Classroom</td>
<td>Watertown School District</td>
</tr>
</tbody>
</table>

The Lincoln School presentations were part of the learning experience offered prior to RiverQuest that focused on South Dakota wetland issues such as wetland types and functions of wetlands. Presentations were conducted at the following water festivals: Waubay National Wildlife Refuge, Northern Prairie Water Festival in Aberdeen, and the Big Sioux Water Festival in Brookings. All of the festival presentations dealt with South Dakota wetland issues.

The presentations at Lake Area Technical Institute (LATI) were part of an annual program called Equity Days that exposed students to career fields that their particular gender would not
necessarily study. For example, male students toured Cosmetology and Dental Assisting while female students visited welding or ag-production. Some LATI presentations were part of the Bio/Environmental Technology tour, some presentations were held at the local environmental festival, and some were conducted at a local multi-day environmental event.

Product 2. Post Secondary Education Classroom Presentations

Milestone: Planned - 15
Completed - 15
Outcome - The presentations resulted in 170 students gaining a better understanding of the water resources in the Watertown area and learning about jobs/careers that focus on water/wetland issues.

Four presentations were conducted at Lake Area Technical Institute (LATI) as a component of LATI’s annual health fair. The presentations focused on the roles of wetlands in cleaning up pollution that may otherwise impact human health. One presentation was held at LATI for the Environmental Technology class. The presentation focused on the role of wetlands in stormwater/wastewater clean-up. Remaining presentations were conducted at LATI for the Environmental Technology program.

Task 4. The Institute’s proximity to the Big Sioux River and associated wetlands was to provide a variety of outdoor education opportunities.

Product 1. Environmental Tours for Youth.

This product was deleted because there was little interest from the target audience.

Product 2. Environmental Tours for Adults.

This product was deleted because there was little interest from the target audience.


This product was deleted because of changes to the South Dakota science standards. With the science standards under revision, educators were reluctant to use materials that followed the old standards.

Product 4. Adult Presentation Seminars

Milestone: Planned – 16
Completed – 16
Outcome - Over three hundred adults participated. The seminars lead to an informed public on water/wetland issues in the Watertown area. (See EVALUATION section, page 12)
Two open forums were held for Watertown residents to provide information regarding mosquitos and wetlands. The forums focused on how a healthy wetland ecosystem serving as its own mosquito control measure. In addition, information was presented on the potential impact of destroying the Watertown area wetlands and what that could mean to mosquito populations and West Nile.

A presentation was made at a local elementary school to promote wetland education. The event was held in response to a request by school faculty and staff to learn more about the local wetlands and wetland issues. The faculty wanted to gain a better understanding of wetlands to be able to pass that knowledge on to their students.

Two workshops were held for educators interested in expanding their classroom-based curriculum.

Seven informational workshops for the general public were held.

Three presentations were held for local service clubs concerning general wetland information with an emphasis on wetlands as migratory rest stops.

One presentation was held at the Redlin Art Center for a general audience.

**Product 5. Media Contacts / Educational Outreach**

**Milestone:** Planned - 21  
Completed - 21  
Outcome - The general public of Watertown was reached. The result of these media contacts was the creation of an informed public on water and wetland issues in the Watertown area. (See EDWDD survey results, page 13: Watertown residents 57.1 percent aware)

Basic wetland information such as types, functions, and why wetlands should be protected were discussed during two live radio interviews. One interview coincided with the City of Watertown's mosquito control program. Information about the role of healthy wetland areas in mosquito control was presented.

Five radio interviews were conducted pertaining to wetland education.

Five printed articles were written pertaining to wetland education.

The Institute partnered with the Upper Big Sioux River Watershed Project to develop informational pieces for radio, cable television, and newspaper media outlets.

**Product 6. Environmental Days for Sixth Grade Students**

**Milestone:** Planned - 18  
Completed - 54
Outcome - These presentations resulted in 1,440 students getting a first-hand look at local riparian wetlands and studying the water quality of the Big Sioux River.

During the grant period, 216 environmental day presentations were made. The programs which focused on riparian wetland education took place in a riparian area behind Bramble Park Zoo. The zoo is located in Watertown. The students attending learned about such issues as riparian identification, water quality, wetland wildlife, and functions of wetlands.

**Task 5.** Develop and implement wetland education tools to be used locally and by the State of South Dakota.

**Product 1. Informative Brochures**

Milestone: Planned - 4,000 copies planned  
Completed - 1,000 copies produced  
Outcome - The brochures were used to inform the general public of local wetland issues.

**Product 2. Wetland Periodical for Adults.**

This product was deleted. A test group indicated very little public interest. In addition, would have been difficult to produce an ongoing publication.

**Product 3. Institute Internet Website**

Milestone: Planned – 1  
Completed - 1.  
Outcome - The website was one of the tools that lead to the development of an informed public concerning water/wetland issues in the Watertown area.

The site is hosted and funded by the City of Watertown. The URL for the site is:

http://www.watertownsd.us/TerryRedlinFreshwater.aspx

**Product 4. Annual Water Festival for Youth and Adults**

Milestone: Planned - 3  
Completed - 3  
Outcome - The Water Festival helped spread the message about local water resources to 1,550 individuals. Festival attendance by date is shown in Table 3.
Table 3. Bramble Park Zoo Water Festival, Watertown, SD

<table>
<thead>
<tr>
<th>Dates</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 24, 2005</td>
<td>600</td>
</tr>
<tr>
<td>July 30, 2005</td>
<td>800</td>
</tr>
<tr>
<td>July 15, 2006</td>
<td>150</td>
</tr>
</tbody>
</table>

Because of the extreme heat during July 2006, only about 150 children and adults visited the festival stations. The Institute assisted with planning of each of the events, and staffed a station that dealt with basic wetland/water education.

**OBJECTIVE 3.** Statewide Wetland Education Program. This portion of the project was written with the intention of providing funding for work on a state-wide South Dakota Wetland Education Program. The Institute was included in the workgroup. No work on a statewide program was completed beyond the initial planning meetings. The activity planned to reach this objective were deleted.

**Task 1.** Planning and Development of statewide Wetland Education Program – Deleted; see above.

**Product 1.** Travel to meetings of coalition group planning sessions – Deleted; see above.

**Product 2.** Publications. Promotional items and educational pamphlets - Deleted; see above.

**Product 3.** Office supplies for meetings - Deleted; see above.

**Product 4.** Postage for planning meetings of coalition group - Deleted; see above.

**Product 5.** Computer supplies for meetings - Deleted; see above.

**Product 6.** Phone/long distance for group planning sessions to develop master plan - Deleted; see above.

**EVALUATION OF GOAL ACHIEVEMENT AND RELATIONSHIP TO THE STATE NPS MANAGEMENT PLAN**

The project was designed to inform the public about the value of wetlands in the northern Coteau of the Big Sioux River Watershed.

During the past three years, water quality benefits of wetland resources have become a learned issue in Watertown because of this project. National teaching standards in Watertown’s schools (No Child Left Behind) resulted in reluctance by administrators to participate in the program when they were first offered information regarding how to add clean water education to the curriculum. However, persistence overcame some of that reluctance and by the third year, the program exceeded the education milestones established for the project.
Although a design and revised plan for the institute building is ongoing, some funding hurdles still remain to be scaled. The director has been located in the offices of the Upper Big Sioux River Watershed Project and shares information and facilities. As the project developed, amendments to phase one of the long term plans were required. As a result of project’s visibility, the director began duties at the end of the grant period as the Information and Education Director of the Stormwater Pollution Prevention Plan for the City of Watertown. The director will continue to protect wetlands and the river within city limits, with local funding to work with citizens on wetland resources. The education portion remains important to Watertown, to the wetlands in Watertown, and to the water quality of the Big Sioux River. Continued education outreach is needed to continue informing the public on this issue. State and local monies, in the absence of federal funds, could be used to continue that education.

The Freshwater Institute has been an integral part of the success of the Upper Big Sioux River Watershed Project. This is evidenced by the results of an April/May, 2006, telephone survey conducted by the East Dakota Water Development District (EDWDD), Brookings, SD, of landowners adjacent to the Big Sioux and of urban residents in the cities of Sioux Falls, Watertown, Brookings, and Brandon. Several questions were asked to gauge public opinion of the Big Sioux and thoughts on protecting it. EDWDD wanted to find out how much if anything the public knew about efforts to restore the river. One question read: “Are you aware of efforts to deal with water quality problems in the Big Sioux River?” Overall, only 30.9 percent said yes. This number consists of rural landowners and all urban residents. When EDWDD considered landowners and urban residents separately, 35.7 percent of rural landowners responded yes. The yes response for other areas were: 25 percent Sioux Falls residents, 10 percent Brookings residents, 28.6 percent Brandon residents, and 57.1 percent of Watertown residents.

**LONG TERM RESULTS IN TERMS OF BEHAVIOR MODIFICATION, STREAM/LAKE QUALITY, GROUND WATER, AND/OR WATERSHED PROTECTION CHANGES.**

The evaluation of the results of educational program offered in a short term is difficult. By asking students, out of context, specific questions about what they can do to help protect our water resources, or asking them what they know about stormwater systems, the results indicated that the message was delivered. The students have engaged in storm drain stenciling and litter collection. Several stores in Watertown began to carry phosphorus-free fertilizers and to advertise that fact.

Rural landowners continue to ask for assistance from the Upper Big Sioux River Watershed Project to improve stewardship programs on the land. Nutrient management goals have been measured in the change of water quality in the Big Sioux River and Lake Kampeska and Lake Pelican. Significant progress has been shown in Lake Kampeska.

The East Dakota Water Development District (EDWDD) survey (see above) of landowners adjacent to the river found that 57.1 percent of Watertown residents were aware of water quality problems in the Big Sioux. Watertown is near the headwaters of the Big Sioux watershed. The survey found a much lower number of informed citizens in the cities downstream.
BEST MANAGEMENT PRACTICES (BMPs) DEVELOPED/REVISED

BMP development/revision was not included in the project workplan.

PUBLIC INVOLVEMENT AND COORDINATION

Public input by a voluntary advisory board, made up of stakeholders, coordinated activities of the Fresh Water Institute through the Upper Big Sioux River Watershed Project. Participating stakeholders included Codington County, Grant County Conservation District, East Dakota Water Development District, Lake Kampska Water Project District, Kampska Izaak Walton League, City of Watertown, Municipal Utilities of Watertown, the Codington Conservation District, Lake Pelican Preservation Society, and surrounding townships.

STATE AGENCY INVOLVEMENT

The project was assisted by the South Dakota Department of Environment and Natural Resources (DENR) and the South Dakota Department of Game, Fish and Parks (GF&P). DENR assisted by approving grant activities and provided administrative assistance. GF&P provided technical assistance.

FEDERAL AGENCY INVOLVEMENT

The Environmental Protection Agency provided literature and periodicals used during project. The US Fish and Wildlife Service assisted with wetland education and wildlife identification.

LOCAL GOVERNMENTS, INDUSTRY, ENVIRONMENTAL AND OTHER GROUPS

The project was supported by the Watertown School District, including the elementary and secondary schools, and Lake Area Technical Institute.

The City of Watertown served as the project sponsor. The City’s finance department provided accounting, payroll and audit services. The City of Watertown was the primary source of matching funds for the EPA 319 Grant.

The Kampska Izaak Walton League was the original sponsor of the Upper Big Sioux River Watershed Project. The Upper Big Sioux Watershed Project Advisory Board and Project Coordinator oversaw the Institute.

OTHER SOURCES OF FUNDS

Financial support for the project was provided by the City of Watertown and the Lake Kampska Water Project District. State funds were not used for this project.
ASPECTS THAT DID NOT WORK WELL

The property and the building that were to be the Terry Redlin Freshwater Institute were not developed primarily because of a lack of funding. The Redlin family proposed new covenants that have not been acceptable to the South Dakota Department of Game, Fish and Parks. These two entities were to be the primary facility sponsors. It is hoped that these differences can be worked out in the near future.

FUTURE ACTIVITY RECOMMENDATIONS

For the most part, the activities conducted during this project went as planned. The response from the students, teachers, and general public generated many requests for future activities. As found by the 2006 EDWDD public survey, increased public awareness is occurring.

This program should continue to provide wetlands educational opportunities for Watertown and northeastern South Dakota. The information/education program of the Institute has been vital to the success of the Upper Big Sioux River Watershed Project.

Table 4. Project Expenditures by Funding Source and Practice.

<table>
<thead>
<tr>
<th>PRACTICE</th>
<th>TOTAL EXPENDITURES</th>
<th>EPA 319</th>
<th>CITY OF WATERTOWN</th>
<th>KAMPESKA WATER PROJECT DISTRICT</th>
<th>IN-KIND MATCH</th>
<th>FEDERAL TOTAL</th>
<th>LOCAL TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIELD TRIPS</td>
<td>$2,301.00</td>
<td>$1,379.00</td>
<td>$840.23</td>
<td>$81.77</td>
<td>$1,379.00</td>
<td>$922.00</td>
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<tr>
<td>RIVERQUEST</td>
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<td>$25.00</td>
<td>$16.00</td>
<td></td>
<td>$25.00</td>
<td>$16.00</td>
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<tr>
<td>ED FAIR</td>
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<td></td>
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<td></td>
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<tr>
<td>CLASSROOM</td>
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<td>OUTDOOR ED</td>
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<td>ED TOOLS</td>
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<td>$8,855.94</td>
<td>$6,007.59</td>
<td>$410.55</td>
<td>$8,855.94</td>
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<td>WETLAND ED PROGRAM</td>
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<td>$23.78</td>
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<td>SALARY</td>
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<td>$49,124.30</td>
<td>$18,531.12</td>
<td>$49,751.00</td>
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<tr>
<td>ADMINISTRATIVE/MISC</td>
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<td>$2,260.11</td>
<td>$856.41</td>
<td>$4,508.49</td>
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<tr>
<td>TOTAL</td>
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<td>$46,670.00</td>
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Table 5. Planned Versus Actual Budget Comparison.

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<th>PRACTICE</th>
<th>ACTUAL EXPENDITURES</th>
<th>PROJECT BUDGET</th>
<th>PLANNED UNITS</th>
<th>ACTUAL UNITS</th>
<th>EPA</th>
<th>MATCH</th>
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<td>$16.00</td>
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<td>3 YEARS</td>
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<td>$7,625.00</td>
<td>3 YEARS</td>
<td>3 YEARS</td>
<td>$4,575.00</td>
<td>$3,050.00</td>
</tr>
<tr>
<td>TOTAL</td>
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<td>$116,670.00</td>
<td></td>
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<td>$70,000.00</td>
<td>$46,670.00</td>
</tr>
</tbody>
</table>

15
Appendix A

Photos

Redlin Freshwater Institute
Wetland Education Program Project
Upper Big Sioux River watershed, located in NE South Dakota (on northern tip of the Coteau des Prairies), the 245,400 acre watershed targeted for education activities.
Golden Pond – site of many of the education activities

Wetlands at original site location
Annual fall Watertown Middle School Social Studies Presentation on formation of the area.

2006 Camp Chance Water presentation
6th Grade Zoo Days – Riparian and Water Education

2002 – Riparian education

2003 Riparian

2004 - Riparian

2005 Water quality

2006 Water testing

2007 Water Quality
Summer Watertown Park and Rec activity – Water Resources

Elementary School Presentations