#### DEVELOPMENT OF WETLAND LEARNING CENTERS IN OKLAHOMA

#### Oklahoma Conservation Commission Task #559

Deliverables:

Final Report

Appendix A—Final Report Form

Appendix B—Data Compilation from Final Report Forms

Appendix C—Solicitation Letter and Application Form

Appendix D—Hands-on Education Workshops (in addition to the 4 required workshops previously submitted)



### Compiled by:

The Oklahoma Conservation Commission Water Quality Division

As required by: 1999 104(b)(3) CD 986226-01-0

September 2004

#### DEVELOPMENT OF WETLAND LEARNING CENTERS IN OKLAHOMA

Wetlands are one of Oklahoma's most valuable natural resources. They are vital to maintaining fish and wildlife resources as well as providing flood protection, improving water quality, and other economic benefits.

The future of Oklahoma's wetland resources are closely tied to land use decisions made by stewards of those resources. Culturally, wetlands are important aspects of Oklahoma's history as well as its future. However, messages sent to Oklahoma's youth are sometimes mixed because of the colorful relationship between property rights "issues" and state and national attempts at conservation and protection of wetland resources.

Local, state, and federal agencies as well as individuals have been working diligently to educate the public regarding wetlands. One way to encourage sound resource management in the future is to provide educational opportunities for the youth of Oklahoma. Wetland outdoor classrooms, learning centers, and educational training provide the opportunity for a better understanding of wetland science, functions, and values. Research and experience have shown that outdoor learning centers are an effective tool to educate both youth and adults.

The goal of this project was to provide both adults and youth the opportunity to experience and become aware of the functions and values of wetland resources. The project goal was accomplished through a series of wetland learning centers, wetland outdoor classrooms and hands-on wetland education.

#### **OUTDOOR LEARNING CENTERS**

Three Outdoor Learning Centers were established in urban areas of Oklahoma: Cleveland County Conservation District (Norman), Pontotoc County Conservation District (Ada) and Rogers County Conservation District (Claremore). These sites were chosen based on their accessibility to school groups, college students, adults and the surrounding communities. A planning committee was formed for each of the three sites. Members included personnel from one or more of the following:

- Oklahoma Conservation Commission
- Local conservation district
- Natural Resources Conservation Service
- Local public school district
- Local university or technology center
- Municipalities
- Local natural history museum

Planning committees at the three sites developed plans and designs for their respective location. These plans were sent to the Oklahoma Conservation Commission and forwarded to EPA Region VI for approval. Once the plans were approved, implementation was initiated. Actual construction of structures was done by volunteer labor, contract labor, or a combination of these. The first Outdoor Learning Center was completed in December 2001.

Upon completion, the Outdoor Learning Centers were used by various groups including:

- Public schools
- Private schools
- Homeschool groups
- Other youth groups (4-H, scouts, etc.)
- Adult groups (garden club, special interest group, etc.)
- Conservation District (youth activities, adult activities, etc.)

From December 2001 through September 2004, the combined total of visitors to the three sites has been 43,922 youth and 23,909 adults. This data was reported to OCC on a Final Report Form (Appendix A) that was distributed to conservation districts and compiled by the OCC Education Coordinator (Appendix B).

#### WETLAND OUTDOOR CLASSROOMS

Six Wetland Outdoor Classrooms were established across the state. Sites were determined on a competitive "mini-grant" basis to ensure adequate locations were developed. Applications forms (Appendix C) were distributed to all 88 conservation districts in the state in July 2000. Staff from OCC's Education and Wetlands programs met in October and reviewed the applications. The following sites were selected:

- Durrett Outdoor Classroom in Tahlequah (Cherokee County Conservation District)
- NFRR Environmental Center in Elk City (North Fork of Red River Conservation District)
- Deer Creek Elementary in Edmond (Oklahoma County Conservation District)
- Glencoe Public School in Glencoe (Payne County Conservation District)
- Antlers Public School in Antlers (Pushmataha County Conservation District)
- Bethel Public School in Shawnee (Shawnee Conservation District)

A requirement in the application was the formation of a planning committee. Members of these planning committees included personnel from one or more of the following:

- Oklahoma Conservation Commission
- Local conservation district
- Natural Resources Conservation Service
- Local public school district (including students)
- Local university or technology center
- Municipalities
- Local natural history museum

Planning committees at the six sites developed plans and designs for their respective location. These plans were sent to the Oklahoma Conservation Commission and forwarded to EPA Region VI for approval. Once the plans were approved, implementation was initiated. Actual construction of structures was done by volunteer labor, contract labor, or a combination of these. The first Wetland Outdoor Classroom was completed in May 2003.

Upon completion, the Wetland Outdoor Classrooms were used by various groups including:

- Public schools
- Private schools
- Homeschool groups
- Other youth groups (4-H, scouts, etc.)
- Adult groups (garden club, special interest group, etc.)
- Conservation District (youth activities, adult activities, etc.)

From May 2003 through September 2004, the combined total of visitors to the six sites has been 4,705 youth and 695 adults. This data was reported to OCC on a Final Report Form (Appendix A) that was distributed to conservation districts and compiled by the OCC Education Coordinator (Appendix B).

#### HANDS-ON WETLAND EDUCATION

A total of six wetland education workshops were conducted for formal and non-formal educators. Workshops were held at the three Outdoor Learning Centers and at two of the Wetland Outdoor Classrooms. A total of 78 educators were trained using the WOW! The Wonders of Wetlands curriculum published by Environmental Concern, Inc. and The Watercourse at Montana State University. Participants had a minimum of 4 hours of training with a cumulative total for all six workshops of 50 contact hours (Appendix B). The 78 educators trained through the grant project have the potential to reach over 2,000 students each year.

Workshops included classroom time as well as field experiences at the actual wetland project sites. Participants were engaged in discussions concerning how to integrate the wetland area into an existing school curriculum and how to maintain the site after completion of the project.

## **APPENDIX A**

### EPA Wetlands Grant Task 559 - Outdoor Learning Centers

**Final Report Form** 

### **APPENDIX B**

# **EPA Wetlands Grant Task 559 - Outdoor Learning Centers**

**Data Compilation from Final Report Forms** 

### **APPENDIX C**

EPA Wetlands Grant Task 559 - Outdoor Learning Centers

**Solicitation Letter and Application Form** 

### **APPENDIX D**

### EPA Wetlands Grant Task 559 - Outdoor Learning Centers

### **Hands-on Education Workshops**

(in addition to the 4 required workshops previously submitted)