FINAL REPORT

October 17, 1995

THE BLUE CREEK PROJECT

An Agricultural Wetland Demonstration

Assistance ID# X 995959-01-0

The Blue Creek Management Team
Toledo Metropolitan Area Council of Governments
The City of Toledo
The Lucas Soil and Water Conservation District
The Metropolitan Park District of the Toledo Area
The Lucas County Engineers
Bowling Green State University
The University of Toledo
Ohio Environmental Protection Agency
Ohio Department of Natural Resources

Toledo Metropolitan Area
Council of Governments
123 N. Michigan Street
Toledo, Ohio 43624-1927
(419) 241-9155

THE BLUE CREEK PROJECT

The Blue Creek Wetland Project is now finished with the GLNPO portion of its scope of services. Since the last progress report, electric has been installed and is now running in the monitoring sheds and a wooden sign has been created and installed on the Blue Creek Wetland site.

The wetlands were formally dedicated at an official event on June 1, 1995 where the new sign was unveiled. This dedication generated even more interest by the general public as to the work that members of the Blue Creek Management Team are performing.

The Blue Creek Wetlands are currently the site for many educational sessions and workshops with the Lucas Soil and Water Conservation District, City of Toledo Department of Natural Resources, and the Maumee River Remedial Action Plan for programs such as erosion control and tree planting demonstrations, wetland education, wildlife studies, and more.

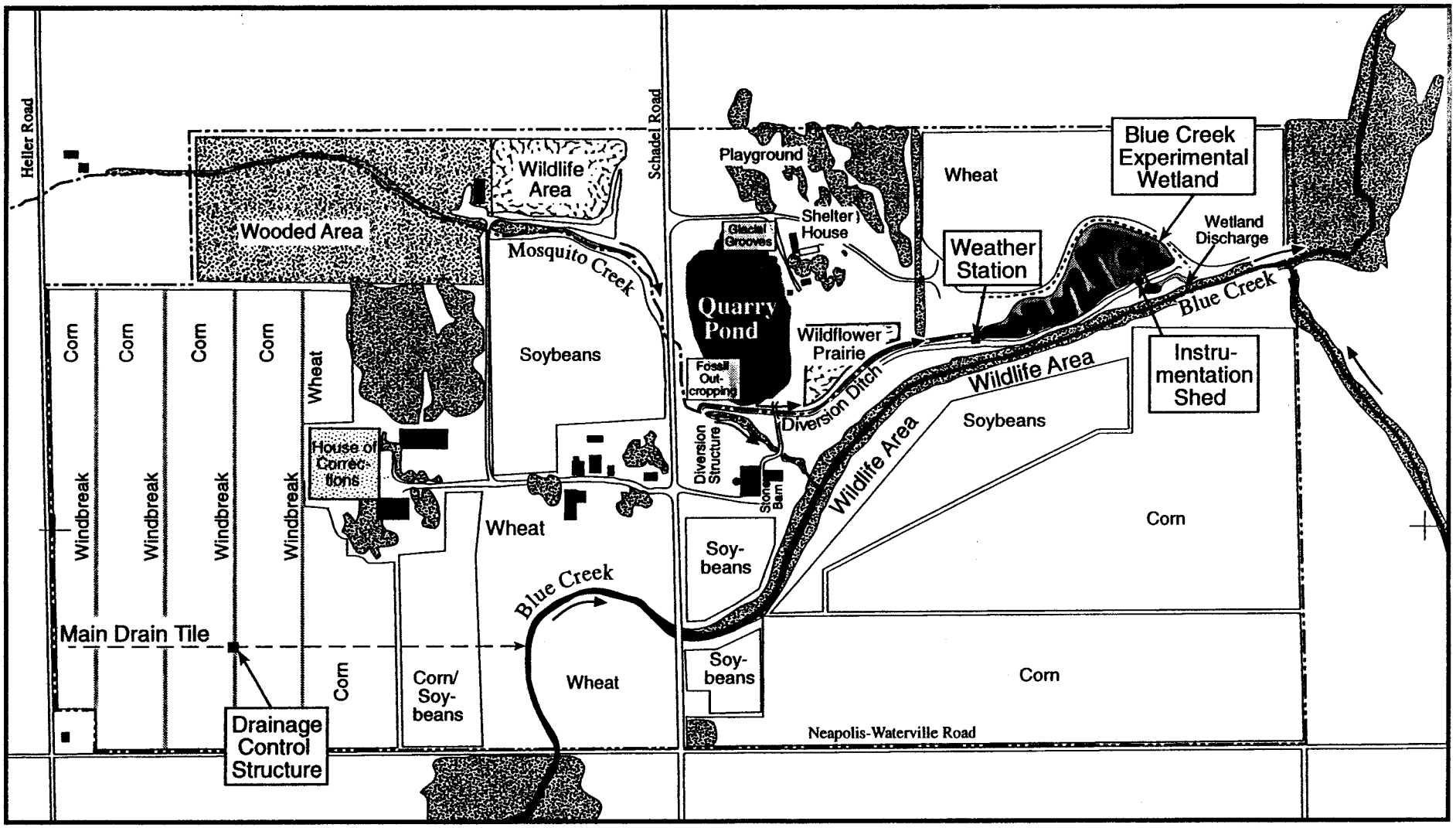
This site is also being utilized by local universities for research projects. Many studies are currently taking place, including research on agricultural runoff and its relationship to wetlands, hydrogeological studies, contaminant pathway studies, and the rate of natural succession.

Professors at the University of Toledo and Bowling Green State University have received several grants to fund research projects and monitoring equipment for their work at the Blue Creek Wetlands. The professors involved in research have established a protocol for developing and implementing a project and have also agreed upon utility responsibilities.

SCHEDULE OF PROJECT

MILESTONES AND DELIVERABLES

Construction of dike for first wetland	completed
1st Blue Creek Quarterly Newsletter	completed
Installation of outfall structure, dredging at inlet and outlet areas	completed
Construction of channel to divert nearby creek into wetland	completed
2nd Blue Creek Quarterly Newsletter	completed
1st Quarterly Progress Report to U.S. EPA	completed
Installation of water level control structure at creek diversion	completed
Installation of poles for electrical line to site, installation of electrical lines, etc.	completed
Purchase and installation of field station sheds	completed
Purchase and installation of monitoring equipment	completed
Creation of wooden sign acknowledging GLNPO	completed
Installation of wooden sign acknowledging GLNPO	completed
3rd Blue Creek Quarterly Newsletter	completed
2nd Quarterly Progress Report and Financial Status Report to U.S. EPA	completed
Development of Monitoring Protocols and Data Collection	completed
4th Blue Creek Quarterly Newsletter	completed
3rd Quarterly Progress Report and Financial Status Report to U.S. EPA	completed
4th Progress Report and Financial Status Report to U.S. EPA	completed
Final Report	completed



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1000 500 0 1000 ft

Scale = 1:7524

Team members Troy Hazelton, left, and Roland Banget put finishi

Man-made new wetland serves nature

BY ED LOCOCO
BLADE STAFF WRITER

The great blue heron alights, its large wings breaking the stillness of the water's surface.

Nearby, a pair of mallards glide by as a Canada goose looks on, nonplussed.

They might be surprised to learn their wetland residence is man-made.

The new Blue Creek Wetland is the result of nearly seven years of effort by The Blue Creek Wetland Management Team, a group of nine local governments and universities.

The group will officially dedicate the three-acre wetland near Whitehouse during a 10 a.m. ceremony today.

Volunteers from the Ohio Operating Engineers built the wetland on property off Schadel Road owned by the city of Toledo. Funding was provided by a $20,000 grant from the EPA.

The Blue Creek project is not only a wetland restoration, said Jenny Carter, coordinator of the Blue Creek Wetlands Management Team. It is also a demonstration of the effectiveness of wetlands in removing agricultural pollutants, pesticides, and sediments from stormwater runoff.

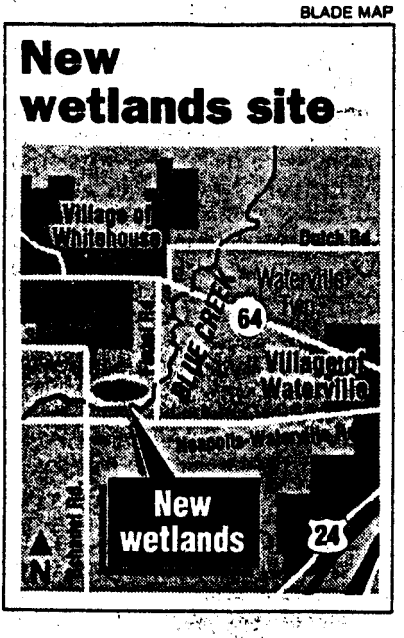
Immediately beside the wetland, 25 acres of wheat are ripening, waiting for harvest in July. A total of 400 acres of mostly agricultural land will drain into the wetland.

Dr. Gary Silverman, an environmental health professor at Bowling Green State University, said some research indicates that wetlands have a tremendous ability to treat water. But most studies have focused on heavily managed wetland areas.

"Very little work has been done looking at the ability of a lightly managed wetland to clean agricultural drainage," Dr. Silverman said.

Agricultural runoff is the largest source of degraded water in the United States, accounting for more than 50 per cent, Dr. Silverman said. The runoff often contains such pollutants as herbicides and insecticides.

BLADE MAP



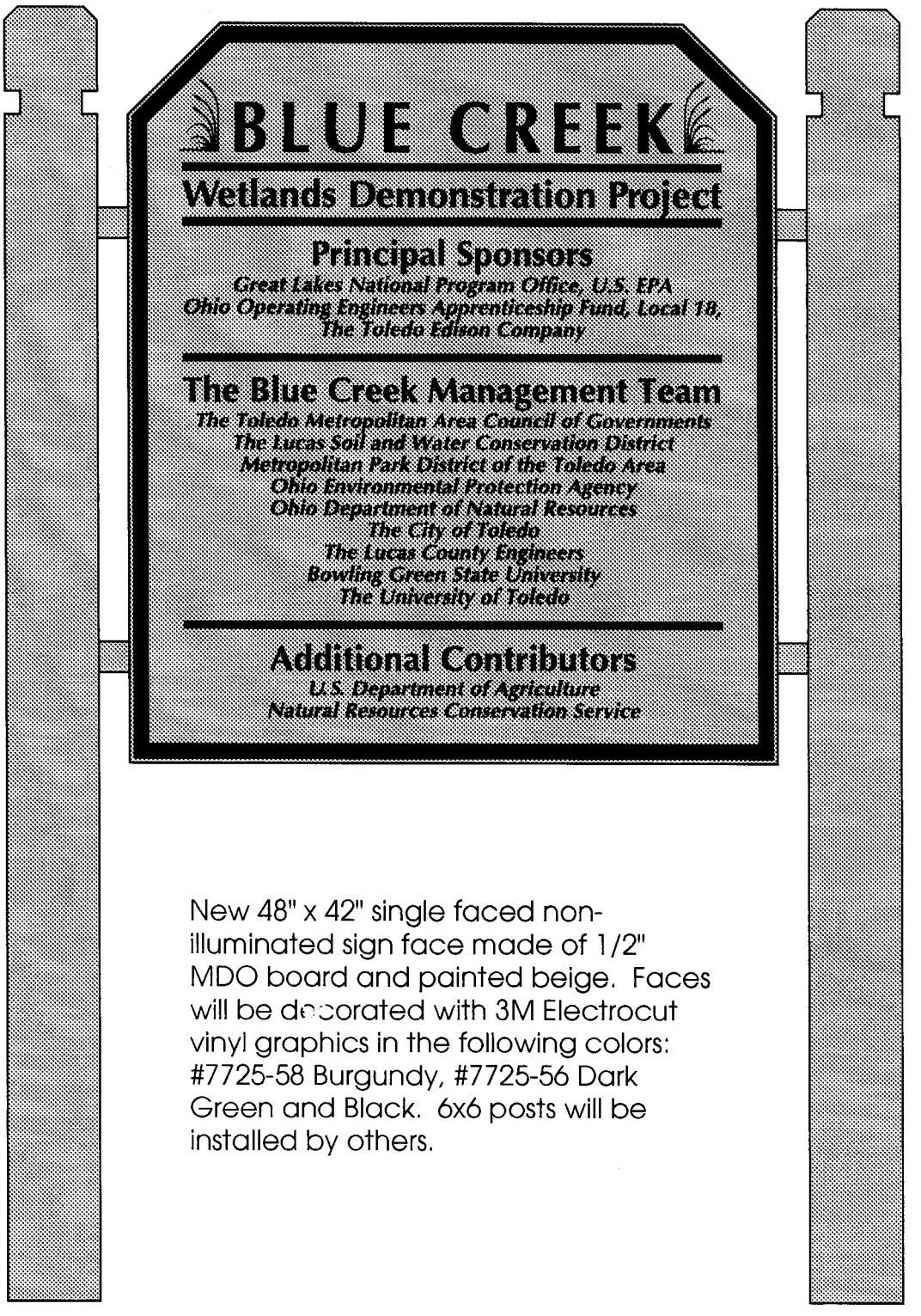
Testing will be done before the water enters the wetland and as it comes out to see how much purification takes place, he said. The wetland water also will be monitored to see what effects the pollutants have there.

"Eventually, we hope to learn the fate of agricultural pollutants entering the wetland system and how to optimize wetland design to most effectively treat these pollutants," Dr. Silverman said.

Aside from the pollutants it contains, agricultural runoff hurts the environment in other ways, Ms. Carter said. The sediments build up in river beds reducing the area for fish to spawn. This same sediment finds its way down the Maumee River into the Maumee Bay, she said.

Work on the wetland began in 1993, when three acres of land were graded to create a basin. The wetland has an average depth of 18 inches, but is nine feet deep in places. It finally became operational this spring, Dr. Silverman said.

"We've had a lot of rain and we've been able to fill the system up," he said.



New 48" x 42" single faced non-illuminated sign face made of 1/2" MDO board and painted beige. Faces will be decorated with 3M Electrocut vinyl graphics in the following colors: #7725-58 Burgundy, #7725-56 Dark Green and Black. 6x6 posts will be installed by others.

Gardner signs
3800 Airport Highway
Toledo, Ohio 43615
419-385-6669

CLIENT: Blue Creek Wetlands

PROJECT: Double faced, non-illuminated MDO sign

LOCATION: 123 Michigan Street

SALESPERSON: Don Mynderse

DESIGNER: Rose Cole

DATE: 3/31/95 **DESIGN:** # 3870-1-1

SCALE: 3/32" = 1"

DRAWN BY: RMC

CLIENT AUTHORIZATION: gc

SALES APPROVAL:

REVISIONS: 4/6/95