



**U S Army Corps  
of Engineers**  
Huntington District

---

# Public Notice

---

In reply refer to Public Notice No.  
**200300952**

Issuance Date: December 06, 2006

Stream:  
UNTriB Big Run

Closing Date: January 06, 2007

---

Please address all comments and inquiries to:

U.S. Army Corps of Engineers, Huntington District

ATTN: CELRH-OR-F Public Notice No. (*reference above*)

502 Eighth Street

Huntington, West Virginia 25701-2070

Phone: (304) 399-5210

---

**PUBLIC NOTICE:** The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you would participate in this process.

**REGULATORY PROGRAM:** Since its early history, the U.S. Army Corps of Engineers (Corps) has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the Corps Regulatory Program.

**SECTION 10:** The Corps is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate all work or structures in or affecting the course, condition or capacity of navigable waters of the United States (U.S.). The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

**SECTION 404:** The Corps is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the discharge of dredged and fill material into all waters of the United States, including wetlands. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

**TO WHOM IT MAY CONCERN:** The following wetland mitigation bank proposal has been submitted under the provisions of the November 25, 1995 Federal Guidance for the Establishment, Use and Operation of Mitigation Banks (60 FR 58605).

**APPLICANT:** Gregory A. Hilty  
Hilty LLC  
11565 Wedgewood Drive  
Pickerington, Ohio 43147

**LOCATION:** The project area is located in jurisdictional waters of the United States within an approximately 71.5-acre site located west of Cranberry Lane and south of Shannon Valley Road in Licking Township, Muskingum County, Ohio.

**MITIGATION BANKING:** Mitigation banking is defined as wetland restoration, creation, enhancement, and in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for unavoidable wetland losses in advance of development actions, when such compensation cannot be achieved at the development site or would not be as environmentally beneficial. Units of restored, created, enhanced, or preserved wetlands are expressed as “credits” which may subsequently be withdrawn to offset “debits” incurred at a project development site. The Corps is responsible for authorizing the use of a particular mitigation bank on a project-specific basis and determining the number and availability of credits required to compensate for proposed impacts. Decisions rendered by the Corps would fully consider all comments submitted as part of the prospectus evaluation process.

**DESCRIPTION OF PROPOSED WORK:** The applicant has submitted a prospectus to the Huntington District Corps of Engineers and the other members of the regional Mitigation Bank Review Team (MBRT) to develop and operate a wetland mitigation bank.

**SITE DESCRIPTION:** The proposed 71.5 acre Shannon Valley Wetland Mitigation Bank (SVWB) site contains 28.15 acres of jurisdictional wetlands, 5,022 linear feet of jurisdictional streams, a 0.05 acre portion of an adjoining pond, and approximately 3,200 linear feet of non-jurisdictional agricultural drainage ditches. Jurisdictional wetlands are located in six distinct areas of the site and are identified as Wetland A through Wetland F. Five jurisdictional streams are located on site and are identified as Stream 1 through Stream 5. Five non-jurisdictional agricultural drainage ditches are located on-site and are identified as Ag Ditch 1 through Ag Ditch 5.

The SVWB site was selected for use as a wetland mitigation bank because of the baseline site characteristics that indicated a good potential for the creation of a natural wetland environment. Baseline site characteristics exhibited by the site that are of importance are the types of soil, the presence of existing wetland vegetation, and site hydrology:

- 1 Soil Types - The Soil Survey of Muskingum County, Ohio indicates the entire site is underlain with hydric soil and non-hydric soil with hydric components, with the exception of a small area in the northwest corner of the site (Figure 5).
- 2 Vegetation – Approximately 90% of the site has been farmed in the recent past altering the native habitat. The site was allowed to go fallow approximately eight years ago allowing native and invasive species re-growth. Initial and subsequent site evaluation has revealed some areas of diverse emergent wetland plant communities, and areas with moderate coverage of invasive wetland plant species. The presence of wetland plants indicates that appropriate habitat development should improve the existing wetlands and provide the seed banks for the development of restored wetlands in the surrounding on-site areas.

- 3 Hydrology – The SVWB site is located in the Big Run watershed with an unnamed branch (Stream 1) flowing through the west, central and east sections of the site. The unnamed branch is known to flood the site several times each year and dry up during prolonged dry periods. Five jurisdictional streams and five non-jurisdictional agricultural drainage ditches are located on site. These streams and drainage ditches allow the flow of surface water to Stream 1, then into Big Run. Surface water and groundwater are supplied to the site by the surrounding highlands. The estimated watershed area that is hydrologically connected to the site is approximately 770 acres (Figure 8). The site is also located in the Dillon Reservoir flood storage area and the 100-year flood plain. The Lake elevation data indicates that during this 10-year period the highest lake level was 788.22 feet above mean sea level (msl) and was recorded during the January/February flood event of 2005. The next highest lake level during this 10-year period was 767.64 feet above msl. The lowest elevation on the proposed bank site is approximately 781 feet above msl. The highest lake level elevation prior to the last 10 years was 772 feet above msl in the 1970's. Based on this information the site has flooded one time during the past 35 years due to elevated Dillon Reservoir lake levels.

**PROJECT OBJECTIVES:** Specific objectives of the SVWB include the following:

- 1 Enhancement of the existing wetlands by increasing the wetland quality ratings of the six wetlands to Category 2 wetlands in the Western Allegheny Plateau ecoregion by achieving a Vegetation Index of Biotic Integrity (VIBI) score of 51 points or higher, within five years of construction (Table 2 and Figure 7).
- 2 Restoration and creation of wetlands of Category 2 (VIBI score of 51 points or higher) in the areas of hydric soil, which includes Lorain (Lo), Luray (Lu), and Sebring (Se), and portions of the areas of non-hydric soil with hydric components, which includes Fitchville (FcA), Glenford (GfB), and Jimtown (JtA)(Figure 7).
- 3 Obtainment of at least 75% aerial coverage of native perennial hydrophytes (FAC (not FAC-), FACW, and OBL).
- 4 Obtainment of less than 5% aerial coverage of invasive plant species, from Table 1 of the ORAM V 5.0 field form, in any wetland or in the aggregate for all wetlands.
- 5 Achievement of less than 10% aerial coverage of un-vegetated open water in any wetland or in the aggregate for all wetlands.

The general wetland design would utilize the baseline conditions to enhance the existing wetlands and restore wetlands in the areas of hydric soil, and non-hydric soil with hydric components to create one large wetland complex. The proposed method to achieve this goal is to plug the five agricultural drainage ditches (Ag Ditch 1, 2, 3, 4, and 5), dig sediment retention ponds, install surface water collection ditches/irrigation ditches, create shallow seasonal wetland pools, and re-vegetate the remaining area with native, non-invasive trees using ridge and furrow cultivation methods (Figure 9).

**PERMIT REQUIREMENTS:** The applicant proposes to place fill material into waters of the United States in association with a proposed boundary control area. Wetland F would be filled in a 10-foot wide by 1-foot high area to create the control berm from the western edge of the

wetland to the edge of the northwestern corner of the pond. A soil borrow area would also act as a long seasonal wetland pool containing water during wet periods and drying during dry periods. Excess water collected in the long pool would be directed along the control berm to Stream 1 and the pond. The proposed discharge into Wetland F is being evaluated for authorization under Nationwide Permit 27 (Stream and Wetland Restoration Activities)(described in Federal Register 67 FR 2020). Impacts to Wetland F would be deducted from the proposed bank credits.

**VEGETATION PLAN:** To control and eventually greatly reduce the presence of invasive plant and upland plant species, dominant native wetland species would be planted in the restored wetland areas (Figure 7). Tree and shrub seedling beds would be prepared utilizing ridge and furrow agricultural plowing techniques. The seedling beds would be slightly raised with furrows on either side of the beds. The goal of this plowing method is to create seasonal wet furrows and aid in the development of hydrophytic plants in the furrows and a drier bed for the establishment of the seedlings. Maturation of the trees and shrubs would create a shaded environment, which would dominate any surviving invasive herbaceous plant species. Shading of the area would also decrease the loss of surface moisture to evaporation.

To aid the establishment of dominant native plant species and enhance the existing wetland areas, an intensive long-term management plan would be implemented. Short term management would utilize agricultural plowing techniques and the application of Rodeo herbicide (glyphosate) utilizing wick and spray application methods. Long term management would include spot application of Rodeo and planting of dominate native deciduous tree and shrub species.

The applicant has submitted a detailed invasive species control plan describing a two-year herbicide application/planting cycle. After the two year Rodeo treatment cycle, a variety of recommended species would be planted in the raised seedling beds. Species described in the applicants prospectus include pin oak, swamp white oak, black willow, American elm, green ash, sand bar willow, silky dogwood, elderberry, and button bush. The seedlings would be planted in rows spaced to allow the continued wick application of Rodeo. The application of herbicide may vary depending on the success rate. Once trees and shrubs are established, re-forestation would be expected to shade and dominate the area, discouraging reed canary grass. Any smaller areas of reed canary grass would be spot sprayed in a similar application cycle. Existing higher quality wetland areas with little or no invasive plant populations would be spot planted with native willow cuttings, bare rooted wetland trees, and balled heavy mast (.5 to 1.5 inch diameter trunk) trees, where needed. Dominant trees and shrubs would eventually shade out any existing invasive herbaceous plants present in the area and improve the wetland quality.

**BANK SERVICE AREA:** The SVWB is located in the Licking River Watershed identified by the United States Geologic Survey (USGS) as Hydrologic Cataloging Unit 05040006. As proposed, the Category 2 and Category 3 wetland mitigation geographic service area for the SVWB is proposed to include all land within the Licking River watershed, the Muskingum River watershed USGS Cataloging Unit 05040005, and the western portion of the Walhonding River watershed USGS Cataloging Unit 05040003. The western portion of the Walhonding River

watershed would consist of the area upstream of the Mohawk Dam located on the Walhonding River near Nellie, Ohio. The Corps and the resource agencies would consider, on a case-by-case basis, if mitigation at the Bank is acceptable and whether the Bank can be used to mitigate for wetland impacts outside of the service area. The geographic service area for mitigation of “Category 1 wetlands” is proposed to include the entire area of the Corps Huntington District.

**CREDIT CALCULATION:** Mitigation ratios for wetland impacts would be determined through the regulatory process for each individual applicant who seeks to propose wetland mitigation at the SVWB site. Credits are proposed to be issued at the following ratios:

- 1 Restored wetland – one acre of restored wetland would be sold as one acre credit (1:1)
- 2 Enhanced wetland – two acres of enhanced wetland would be sold as one acre credit (2:1)
- 3 Improved Upland buffer – four acres of improved upland buffer would be sold as one acre credit (4:1)
- 4 Creation of Seasonal wetland pools – additional credit may be granted by the MBRT based on the success of these areas

The prospectus indicates all 28.15 acres of existing wetland would be enhanced, 24.17 acres of wetland would be restored, and 18.5 acres of upland buffer (Table 4, Figure 7) would be improved. Approximately 0.45 acre would be utilized for the existing oil well production activities, which includes the access road, a small shed and above ground storage tanks. An additional 0.23 acres of the site would be utilized for wetland development equipment storage and would be surveyed and retained by the applicant. This 0.23 acre area would be considered a long term site maintenance area and would not be included as an improved upland buffer. The proposed maintenance area would be located in the northwest corner of the east section of the proposed fill area between Wetlands B and D (Figure 9).

Based on anticipated results, a total of 42.875 acre credits would be available at this bank for wetland mitigation. Additional credits approved by the MBRT would be dependant on the success of upland seasonal wetland pools, the number of pools constructed in these areas, and the effects of ridge and furrow tree and shrub planting areas. The applicant has requested that the MBRT approve the pre-construction sale of eight credits in order to provide funding for construction and planting operations.

**MONITORING AND SITE PROTECTION/LONG TERM MANAGEMENT:** The applicant would be responsible for the successful development of the wetland bank, including all monitoring and reporting. The prospectus includes monitoring of the site over a five year period following the completion of construction and planting activities. Success of the site restoration and enhancement would be determined by the MBRT.

All wetlands within the bank would be protected in perpetuity. The applicant would maintain ownership of the site during construction and the five year monitoring period. Prior to MBRT final site inspection a conservation easement or other restrictive covenants would be incorporated

into the property deed to ensure bank preservation in perpetuity. At the end of the monitoring, the applicant proposes to donate the SVWB property to Zane State College with associated easement, conservation covenants, and trust funds. Transfer of site ownership would be contingent on the approval of Zane State College as the long term manager by the MBRT. Zane State College's long term maintenance of the property may include the use of the site for educational purposes.

An interest-bearing trust fund would be established by the applicant and administered by a local law firm under the direction of the applicant. The trust would be funded with each credit or partial credit sold. Sale of all 42.875 credits would provide a trust fund for the long-term management and maintenance of the bank. Interest generated by the trust would be used to provide for bank inspections, routine management, and reporting. The principal of the fund would only be utilized in extreme circumstances if the integrity of the bank is in jeopardy.

**ATTACHMENTS:** Plans of the proposed work are attached to this notice.

**WATER QUALITY CERTIFICATION:** A Section 401 Water Quality Certification has been issued for Nationwide Permit Number 27 with conditions.

**HISTORIC & CULTURAL RESOURCES:** A records search was conducted by the Ohio Historic Preservation Office (OHPO) to determine if historic or archaeological sites are known to be located within the SVWB site or within a one mile radius of the site. The OHPO maintains records of the Ohio Archaeological Inventory, Ohio Historic Inventory, and National Register of Historic Places. The records search indicated that no sites were identified on the SVWB property. The records search indicated one site, the Frazer Quarries, is located within one mile of the proposed bank. The site is listed on the Ohio Archaeological Inventory. Two additional sites were identified just outside of the one mile radius (in the Ohio Archaeological Inventory list). A copy of this public notice will be sent to the OHPO for review. Comments concerning archaeological sensitivity of the project should be based upon collected data.

**THREATENED & ENDANGERED SPECIES:** The project is located within the known or historic range of the following endangered species:

Indiana Bat  
Bald Eagle  
Fanshell Mussel

The Huntington District has consulted the most recently available information and, based on the proposed habitat avoidance measures, has determined the project would have no effect on the Indiana bat, Bald eagle, and Fanshell mussel, or designated Critical Habitat for these Federally listed species. This public notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have whether any listed or proposed to be listed endangered or threatened species may be present in the area that would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

**REVIEW AND COMMENT:** Any person who has an interest, which may be adversely affected by the approval of this bank, may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity.

Interested parties are invited to state any objections they may have to the proposed work. The decision whether to approve the proposal would be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision would reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal would be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. Written statements on these factors received in this office on or before the expiration date of this public notice would become a part of the record and would be considered in the final determination. The bank would be approved unless its issuance is found to be contrary to the public interest.

**SOLICITATION OF COMMENTS:** The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received would be considered by the Corps to determine whether to approve this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**CLOSE OF COMMENT PERIOD:** All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice. Persons wishing to submit comments, objections or requests for public hearings concerning the Corps evaluation of this proposal should write:

U.S. Army Corps of Engineers  
ATTN: CELRH-OR-F Public Notice No. 200300952  
502 8<sup>th</sup> Street  
Huntington, West Virginia 25701-2070

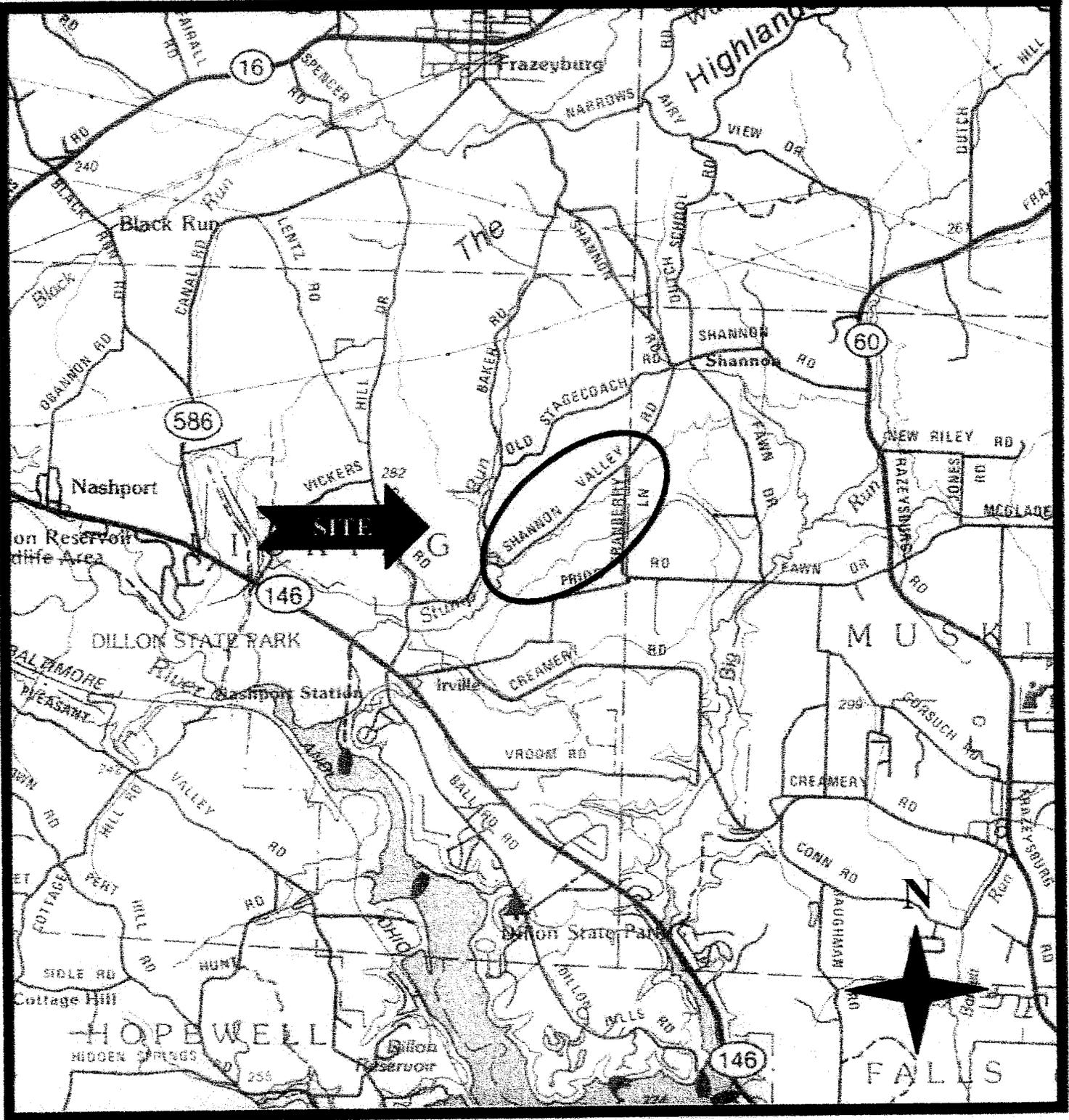
Please note, the names and addresses of those who submit comments in response to this public notice become part of our administrative record and, as such, are available to the public under provisions of the Freedom of Information Act.

Thank you for your interest in our nation's water resources. If you have any questions concerning this public notice, please call Mr. Stan Walker of the North Regulatory Section at 304-399-5210.



Ginger Mullins  
Chief, Regulatory Branch

(O)



**FIGURE 1**  
 Site Location Map  
 1"=1.19 miles  
 (DeLorme, 1999)

USGS 7.5 Minute Series Quadrangle  
 Dresden, Ohio  
 Latitude: 40-3-52.7760  
 Longitude: 82-6-27.1080

Survey Provided by:  
 HYDE-LEROY LAND SURVEYING, INC.  
 8354 HAZELTON-ETNA ROAD  
 ETNA, OHIO 43018-0322  
 TOLL-FREE 1-877-355-9279  
 (740) 927-0732  
 FAX (740) 964-6309  
 DRAWING: B04-09-WETLAND  
 PROJECT NO. B-03-10-05-04  
 DATE: MAY 28, 2004

Copyright 2004, Hyde-Leroy Land Surveying, Inc.  
 This is a CAD Drawing. Do not Reproduce.

THE FOREGOING BOUNDARY SURVEY WAS PREPARED FROM ACTUAL FIELD MEASUREMENTS. ALL MEASUREMENTS WITH EXCEPTED TO ACCORD WITH ADMINISTRATIVE CODE. IRON PINS SET ARE 1" X 30" O.D. WITH YELLOW PLASTIC CAPS INSCRIBED "HYDE P.S. 7529".

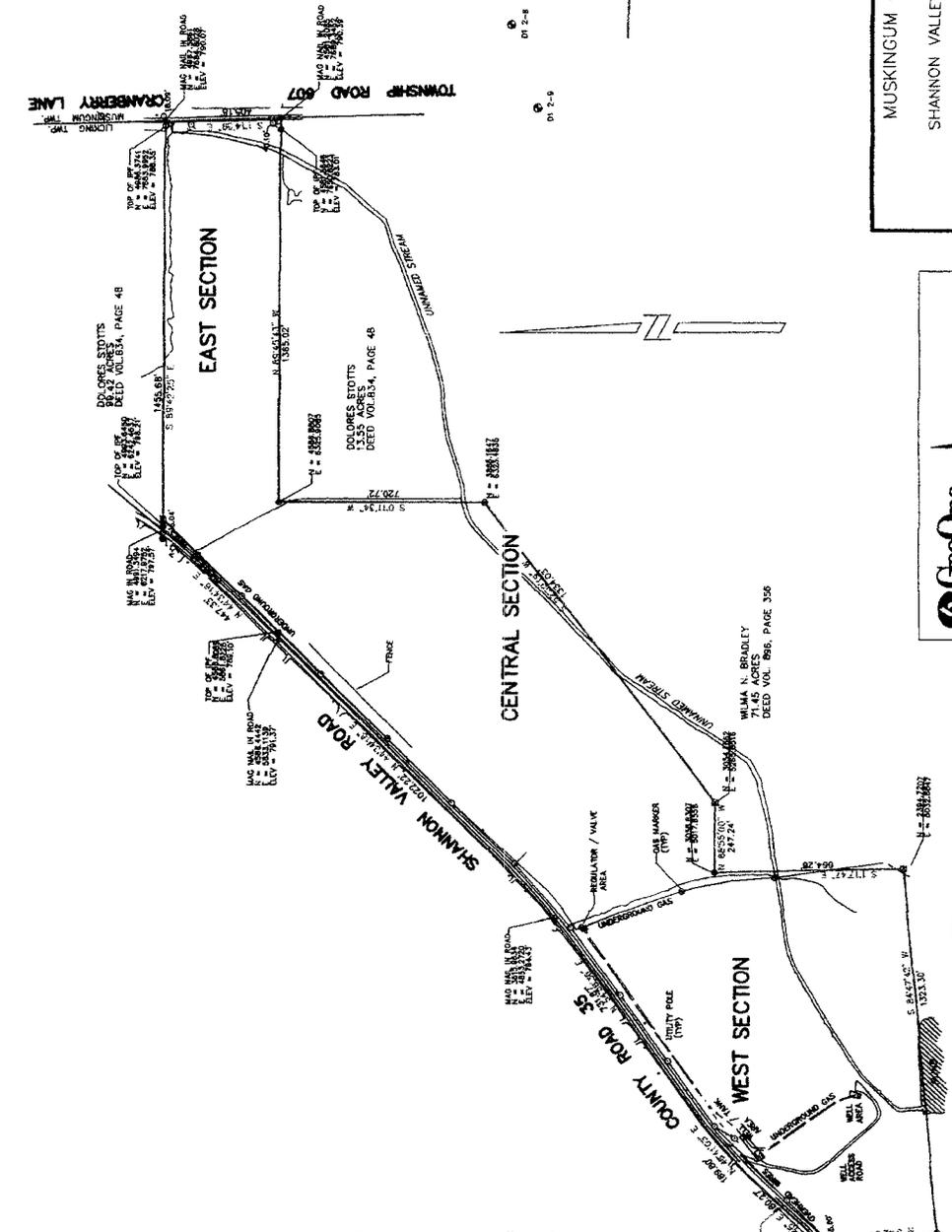
WAG NAILS IN ROAD DO NOT REPRESENT ACTUAL PROPERTY CORNERS THEY ARE TO BE USED FOR AERIAL PHOTOGRAPHY PLACEMENT & ELEVATIONS.

BEING 56.200 ACRES & 15.347 ACRES IN DILLON TOWNSHIP, RANGE 9, T. 2 S. 11 E. 11 S. UNDIVIDED LANDS IN THE TOWNSHIP OF MUSKINGUM COUNTY OF MUSKINGUM STATE OF OHIO, RECORDED IN OFFICIAL RECORD VOLUME 1816, PAGE 513.

BENCHMARKS USED FOR THIS SURVEY ARE: D1 2-8 & D1 2-9 WHICH ARE IRON PIPES SET BY THE U.S. ARMY CORPS OF ENGINEERS @ DILLON LAKE.

NOTES:  
 RECORDS USED FOR THIS SURVEY:  
 -RECORDED PLAT(S)  
 -COUNTY TAX MAPS  
 -SURROUNDING SURVEYS  
 -SUBJECT & ADJOINING DEEDS

NO TITLE REPORT WAS FURNISHED BY CLIENT. NO UTILITIES OR EASEMENTS WERE LOCATED.



**LEGEND**

Property Boundary

ID	BEARING	DISTANCE	DISTANCE
L1	N 65°12'24" E	127.41	127.41
L2	N 43°48'33" E	129.69	129.69
L3	N 36°34'18" E	111.78	111.78

IRON PIN SET	BEARING	DISTANCE
5/17	N 65°12'24" E	127.41
5/18	N 43°48'33" E	129.69
5/19	N 36°34'18" E	111.78

MUSKINGUM COUNTY, OHIO  
 SHANNON VALLEY WETLAND BANK

**FIGURE 2  
 SITE MAP**  
 2005

SCALE: 1"=400'  
**EMHT**  
 ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS  
 170 N. Street, Delaware, Ohio 43004  
 Ph: (614) 471-5358 - Fax: (614) 471-5888

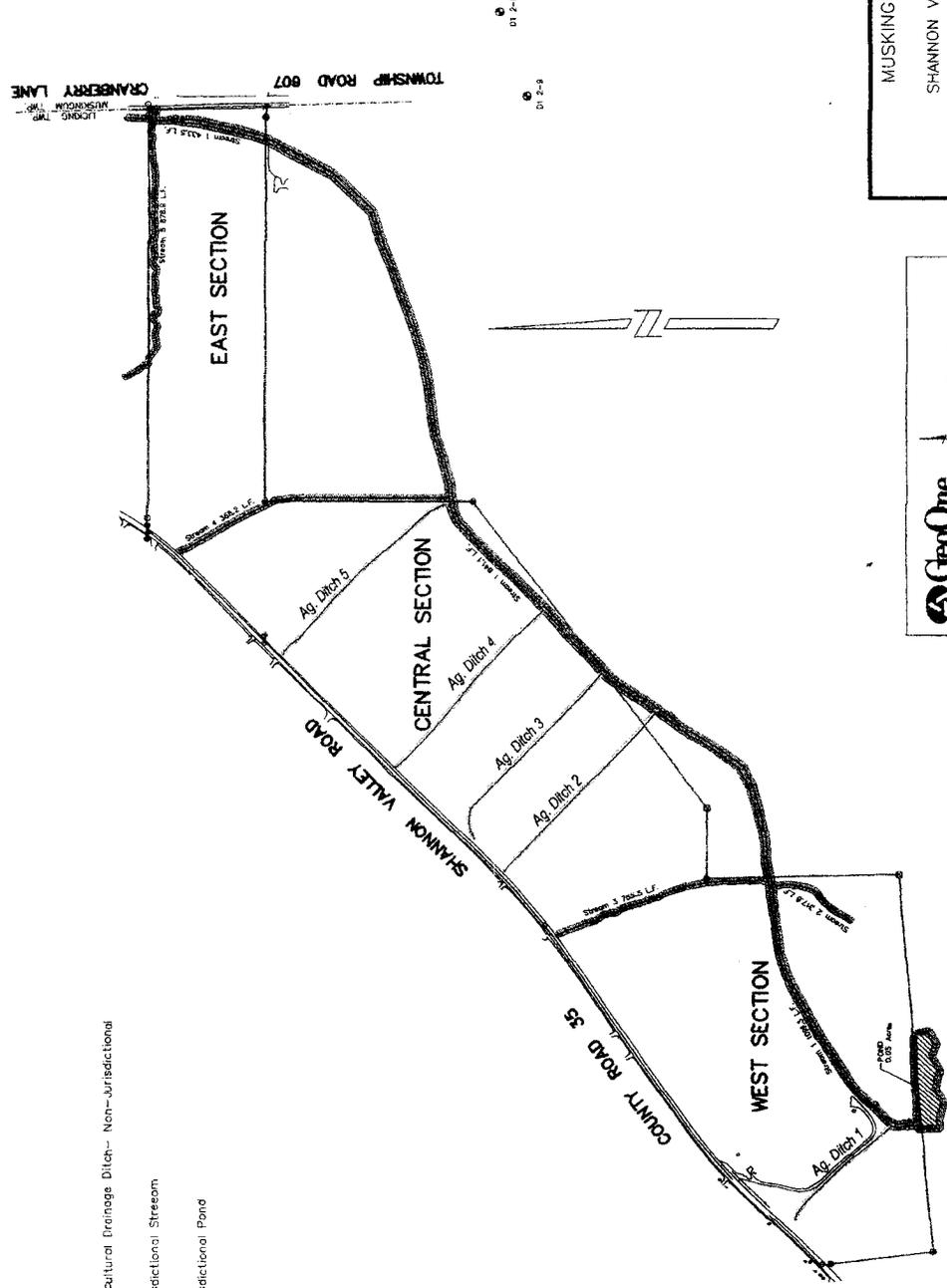


STEVEN J. HYDE  
 P.S. 7529



**LEGEND**

-  Agricultural Drainage Ditch-- Non-Jurisdictional
-  Jurisdictional Stream
-  Jurisdictional Pond



OWNER: J. J. HYDE	DATE: 01/20/05
PROJECT: SHANNON VALLEY WETLAND BANK	SCALE: 1"=400'
DRAWN BY: J. J. HYDE	CHECKED BY: J. J. HYDE
DESIGNED BY: J. J. HYDE	APPROVED BY: J. J. HYDE
PROJECT NO.: 05-001	DATE: 01/20/05

MUSKINGUM COUNTY, OHIO  
 SHANNON VALLEY WETLAND BANK  
**FIGURE 4**  
**SURFACE WATER MAP**  
 2005

**GeoOne**  
 CONSULTING ENGINEERS  
 1170 W. 17th Street, Ste. 100  
 Muskegon, MI 49441  
 Phone: (616) 471-5150 Fax: (616) 471-1288  
 WWW.GEOONE.COM

**RILTY LLC**  
 SHANNON VALLEY ROAD

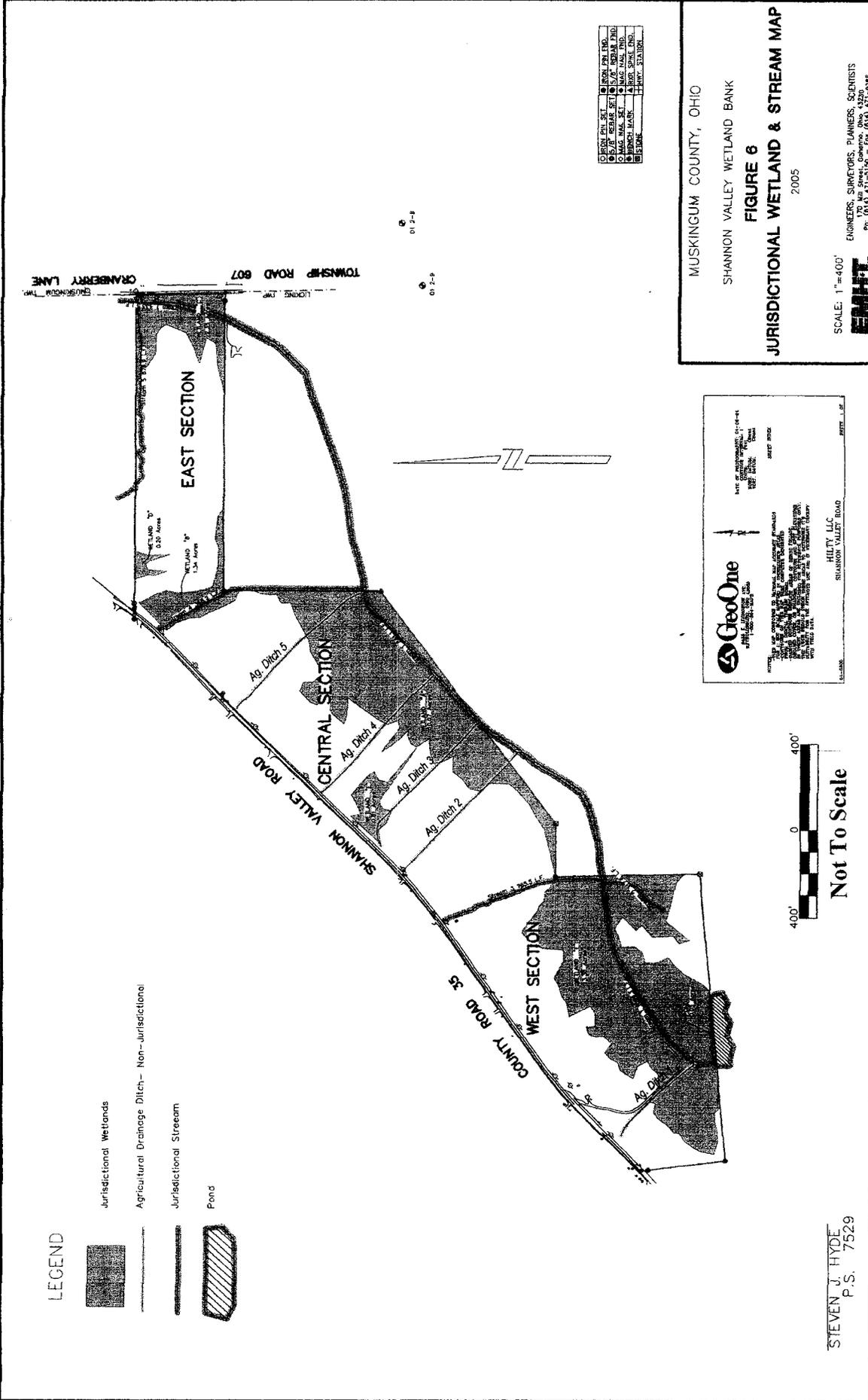


**Not To Scale**

STEVEN J. HYDE  
 P.S. 7529

SCALE: 1"=400'  
**EMRI**  
 ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS  
 170 W. 17th Street, Ste. 100  
 Muskegon, MI 49441  
 Phone: (616) 471-5150 Fax: (616) 471-1288





**LEGEND**

-  Jurisdictional Wetlands
-  Agricultural Drainage Ditch- Non-jurisdictional
-  Jurisdictional Stream
-  Pond



**GeoOne**  
GEOGRAPHIC INFORMATION SYSTEMS

HILTY, LLC  
SHANNON VALLEY ROAD

DATE: 01/20/05  
SCALE: 1"=400'  
PROJECT: SHANNON VALLEY WETLAND & STREAM MAP

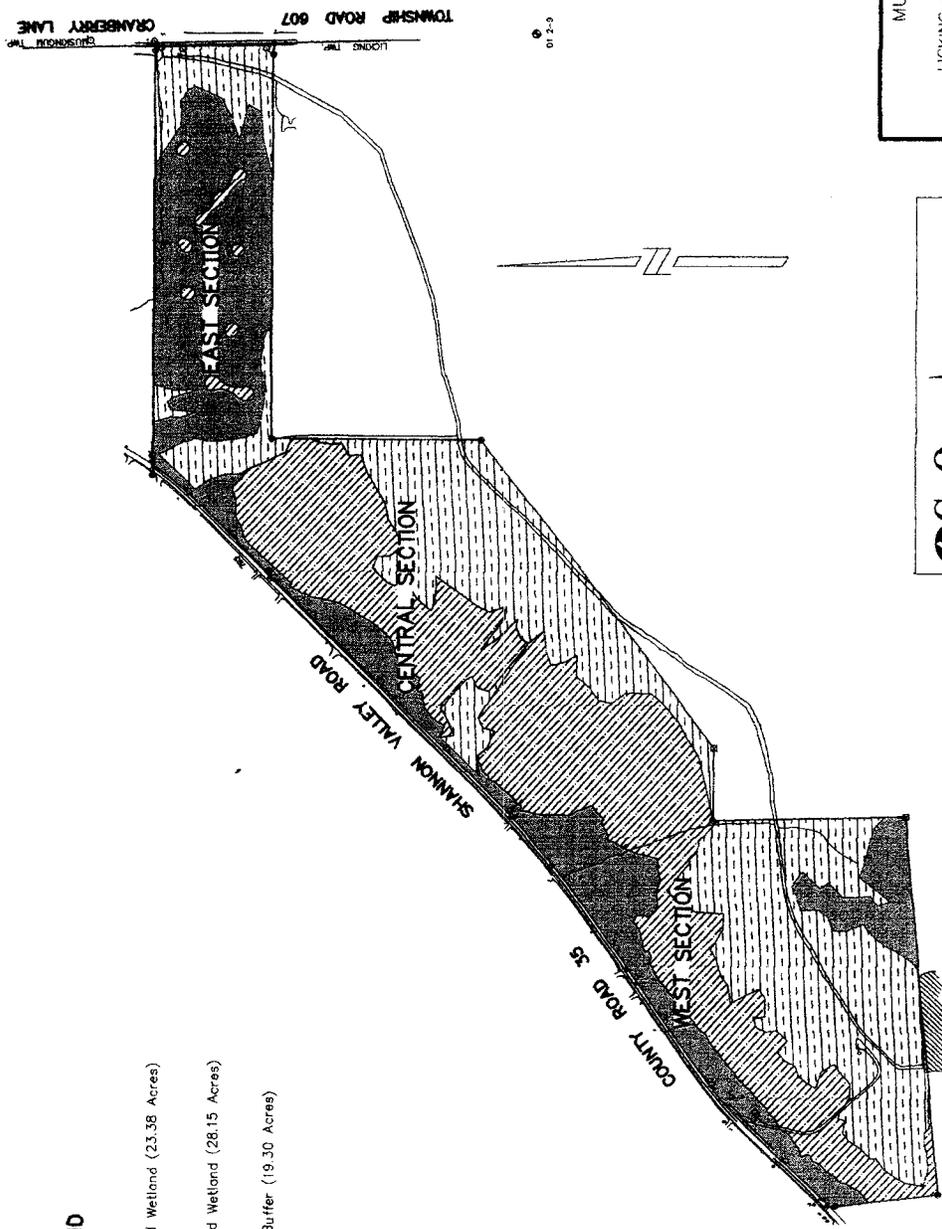
MUSKINGUM COUNTY, OHIO  
SHANNON VALLEY WETLAND BANK  
**FIGURE 6**  
**JURISDICTIONAL WETLAND & STREAM MAP**  
2005

SCALE: 1"=400'  
**EMMETT**  
ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS  
170 W. 1st St., Canton, Ohio 44703  
Ph: (614) 471-5100 - Fax: (614) 471-8888

○	CONTROL POINT	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY
○	WETLAND BOUNDARY	○	WETLAND BOUNDARY

**LEGEND**

-  Restored Wetland (23.36 Acres)
-  Enhanced Wetland (28.15 Acres)
-  Upland Buffer (19.30 Acres)



○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND
○	WETLAND SET	○	PER. POND

MUSKINGUM COUNTY, OHIO

LICKING RIVER WATERSHED WETLAND BANK

**FIGURE 7  
WETLAND RESTORATION, ENHANCEMENT,  
AND BUFFERS**

2005

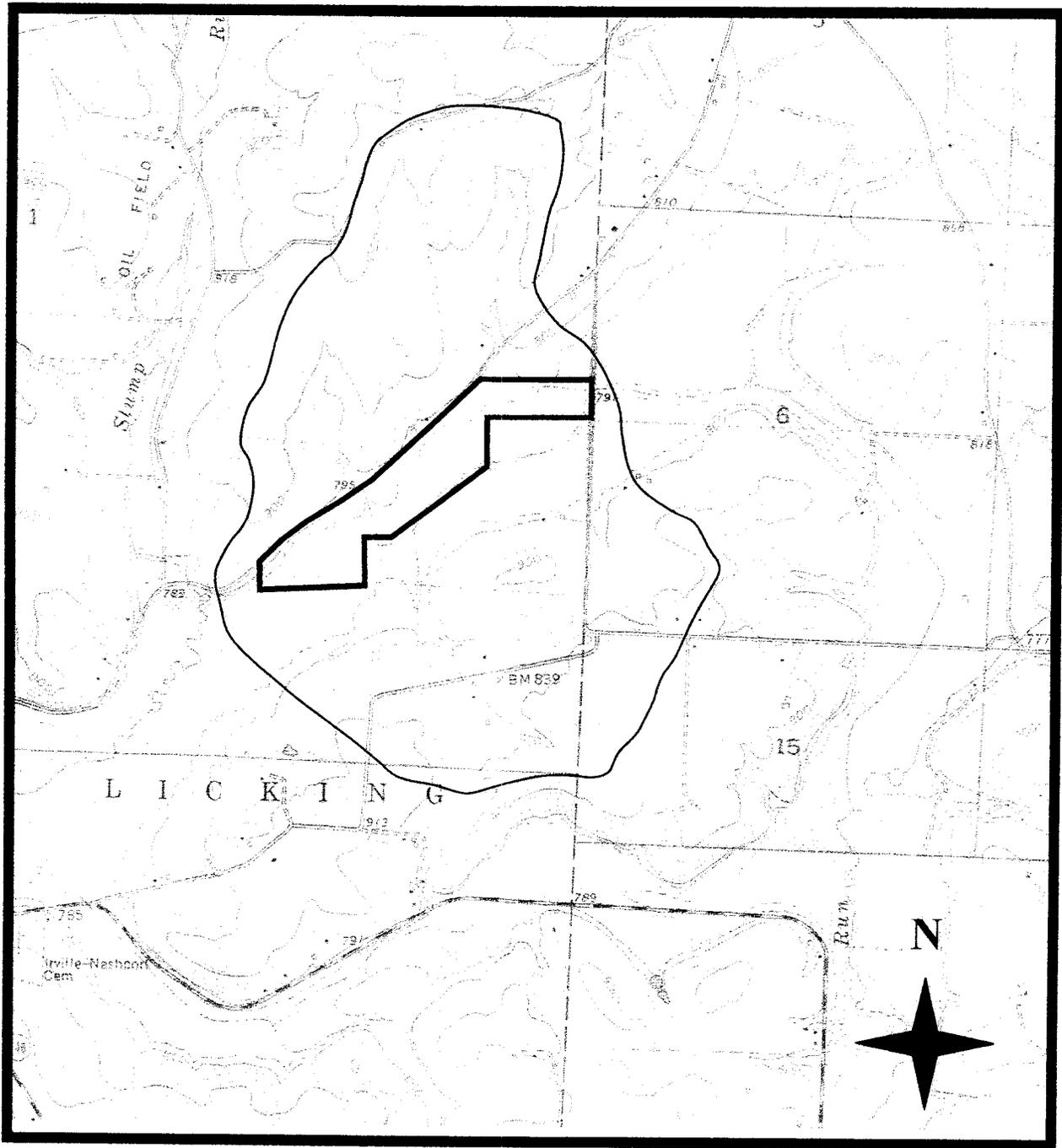
SCALE: 1"=400'

ENGINEERS, SURVEYORS, PLANNERS, SCIENTISTS  
172 Mt. Street, Columbus, Ohio 43220  
Ph: (614) 471-5150 - Fax: (614) 271-9988



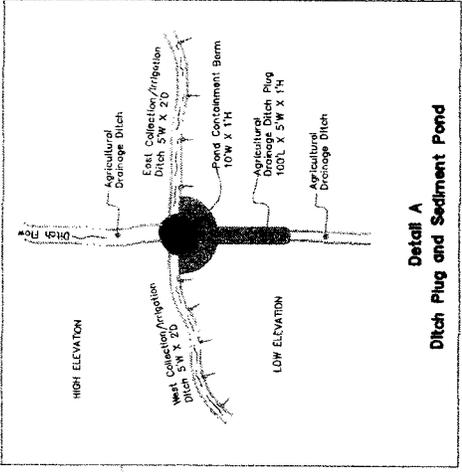
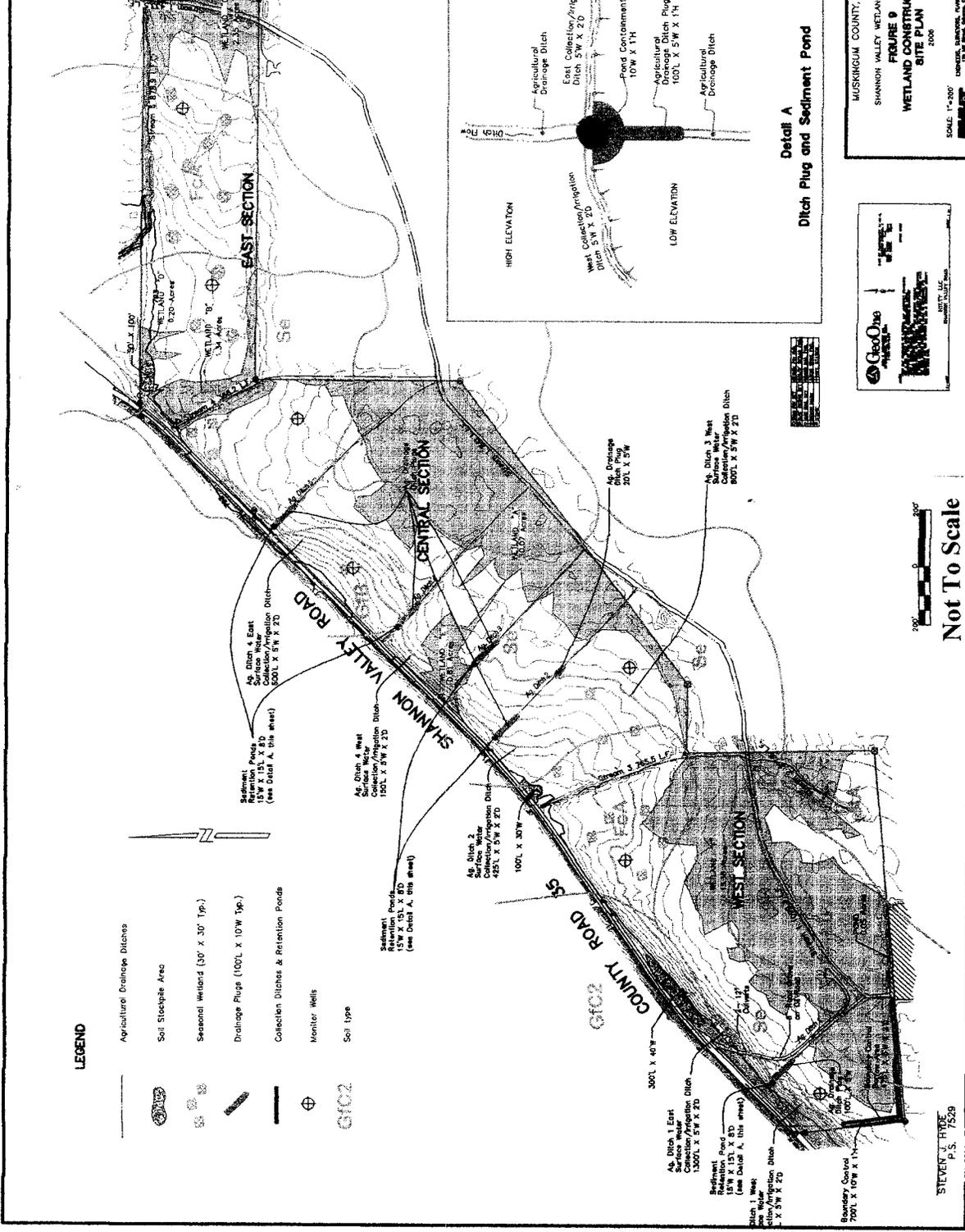

Not To Scale

STEVEN J. HYDE  
P.S. 7529

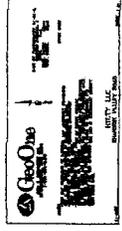


**FIGURE 8**  
USGS Topographical Map  
1"=2000'  
Dresden, Ohio (Photorevised 1978)  
Site Hydrologic Watershed  
(Approximately 770 Acres)

MUSKINGUM TWP. LIVING TWP. TOWNSHIP ROAD 607



MUSKINGUM COUNTY, OHIO  
SHANNON VALLEY WETLAND BANK  
**FIGURE 9**  
**WETLAND CONSTRUCTION**  
**SITE PLAN**  
2008



Not To Scale

STEVEN J. BURDE  
P.S. 7529

1000-1410

Table 1

**EXTENT OF JURISDICTIONAL WATERS AND WETLANDS**  
**Shannon Valley Wetland Mitigation Bank**

Wetland A	Non-agricultural	10.07			10.07
Wetland B	Non-agricultural	1.34			1.34
Wetland C	Non-agricultural	2.35			2.35
Wetland D	Non-agricultural	0.2			0.2
Wetland E	Non-agricultural	0.81			0.81
Wetland F	Non-agricultural	13.38			13.38
Stream 1	Perennial		0.33	2,374	0.33
Stream 2	Intermittent		0.04	635	0.04
Stream 3	Intermittent		0.04	766	0.04
Stream 4	Intermittent		0.03	368	0.03
Stream 5	Intermittent		0.06	879	0.06
Pond	Open Water		0.05		0.05
Site Total		28.15	0.55	5,022	28.7

**Table 2**

**ORAM v 5.0 and VIBI Quantitative Score  
Shannon Valley Wetland Mitigation Bank**

1	0 - 29.9	0 - 21
1 or 2 gray zone	30 - 34.9	---
modified 2	35 - 44.9	22 - 44
2	45 - 59.9	45 - 66
2 or 3	60 - 64.9	---
3	65 - 100	67 - 100

Table 3

**CONSTRUCTION DIMENSIONS AND EXCAVATION VOLUMES**  
**Shannon Valley Wetland Mitigation Bank**

West Section	Soil Stock Pile (Above 793)	300 x 40 x 5	60,000/2,222	NA	NA	
	Agricultural Drainage Ditch Plug	100 x 5 x 3	1,500/56	1,500		
	Retention Pond Containment Berm	15 x 10 x 1	150/5.5	150		
	Seasonal Wetland Pools (5)	30 x 30 x 0.5	2,250/83		2,250	
	Boundary Control	700 x 10 x 1	7,000/259	7,000		
	Boundary Soil Borrow	475 x 5 x 2(3)	7,000/259		7,000	
	Retention Ponds	15 x 15 x 8	1,800/67	NA	NA	
	Collection/Irrigation Ditches	250 x 5 x 2 1,300x x5 x2	2,500/93 13,000/481			15,000
	Oil Well Road	600 x 8 x 0.5	2,400/89	2,400		
	West Section Totals				11,050	24,750
Central Section	Soil Stock Pile (Above 793)	100 x 30 x 5	15,000/555	NA	NA	
	Agricultural Drainage Ditch Plug	(4)100 x 5 x 3 (1)20 x 5 x 3	6,300/233	6,300		
	Retention Pond Containment Berm	15 x 10 x 1	150/5.5	150		
	Seasonal Wetland Pools (8)	30 x 30 x 0.5	3,600/133		3,600	
	Retention Ponds	15 x 15 x 8	1,800/67	NA	NA	
	Collection Ditches	245 x 5 x 2	2,450/91			
		200 x 5 x 2	2,000/74			
		800 x 5 x 2	8,000/296			
150 x 5 x 2		1,500/56				
500 x 5 x 2	5,000/185					
500 x 5 x 2	5,000/185				23,950	
Central Section Totals				6,450	27,550	21,100
East Section	Soil Stock Pile (Above 793)	100 x 50 x 5	25,000/926	NA	NA	
	Seasonal Wetland Pools (10)	30 x 30 x 0.5	4,500/167		4,500	
	East Section Totals					4,500
Site Total				17,500	56,800	39,300

NA = No Affect

**Table 4**

**Wetland Bank Credits and Acreage  
Shannon Valley Wetland Mitigation Bank**

Restored	24.17	1:1 (24.17 Credits)	3
Enhanced	28.15	2:1 (14.08 Credits)	5
Improved Upland Buffer	18.5	4:1 (4.625 Credits)	0
Total	70.82	42.875	8