



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

# Public Notice

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In reply refer to Public Notice No.

**2006-00484**

Issuance Date:

**August 31, 2007**

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Stream:

-UNTri Indian Run

Closing Date:

**October 1, 2007**

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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

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**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 will participate in this process.

**REGULATORY PROGRAM:** Since its early history, the United States 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. 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 application has been submitted for a Department of the Army Permit under the provisions of Section 404 of the Clean Water Act. This notice serves as the Corps' request to the Ohio Environmental Protection Agency to act on Section 401 Water Quality Certification for the following application.

**APPLICANT:** Buckeye Industrial Mining Company  
PO Box 389  
4719 Industrial Road  
Lisbon, Ohio 44432

**LOCATION:** The project area is located in jurisdictional waters of the United States in the Indian Run watershed. The site is located east of State Route 43 and south of Township Road 75 in Sandy Township, Stark County, Ohio.

**DESCRIPTION OF PROPOSED WORK:** The applicant proposes to place fill material into a total of 849 linear feet of intermittent stream, 1.13 acres of jurisdictional wetlands and 2.99 acres of jurisdictional open water pond in association with coal mining activities. An additional 2,708 linear feet of stream would be impacted secondarily in association with sediment transport. According to the applicant, the purpose of the project is to recover available coal reserves in the project area, which encompasses a total of approximately 238 surface acres. The proposed mining plan involves the removal of approximately 584,300 tons of coal from the #5 Lower Kittanning and #6 Middle Kittanning coal seams through contour and auger mining over a period of five years. The applicant has identified this site as the Wilson area.

During the planning stages for this surface coal mine, waters of the United States were identified within the limits of 406 acres. It has been determined waters of the United States within the limits of the original study area include 7,686 linear feet of intermittent stream, 286 linear feet of ephemeral stream, 2.64 acres of wetlands and 2.99 acres of open water pond. Each of these waters were determined to exhibit a hydrologic connection to Indian Run, which is a tributary in the Tuscarawas River watershed. The Tuscarawas River is a Section 10 navigable waterway. Remaining waters within the boundary of the 406 acre site include 1,239 linear feet of ephemeral stream, 1,088 linear feet of intermittent stream, 8.75 acres of open water pond and 0.53 acre of wetlands. It was determined these waters do not exhibit a hydrologic connection to a surface tributary system and are therefore isolated waters of the State of Ohio. Authorization for impacts to these waters would not be required under Section 404 of the Clean Water Act.

Over 50 percent of the project area is characterized by unreclaimed mining activities that occurred prior to implementation of the Surface Mining Control and Reclamation Act (SMCRA). As such, these parts of the project area are characterized by pit impoundments, exposed spoil piles and highwalls. Following coal removal, the applicant proposes to reclaim these areas thereby covering highwalls and returning these areas to approximate original contours.

Details concerning individual streams and wetlands proposed to be impacted, their quality and purpose of proposed impacts are attached (Tables 1 and 2).

**MITIGATION:** To compensate for proposed impacts to jurisdictional waters of the United States, the applicant has proposed avoidance, minimization and compensation measures. A conceptual mitigation plan has been submitted for review.

The applicant proposes to avoid impacts to 1.51 acres of wetlands and 609 linear feet of stream within the revised project limits. An additional wetland, totaling 13.8 acres and located just north of the project area, is also proposed to be avoided during project implementation. Impacts to waters of the United States on-site and downstream of the project area are proposed to be minimized through implementation of best management practices. Appropriate construction and use of sediment ponds, drainage control structures, diversion ditches, and other best management construction practices are proposed to minimize impacts to waters of the United States.

To compensate for impacts to 849 linear feet of jurisdictional streams, the applicant proposes to reconstruct 1,475 linear feet of stream on-site. The proposed stream channels would be trapezoidal in design and would be rock-lined. The applicant indicates once the stream channels are constructed, flow variations would naturally and gradually modify the stream channels to provide changing depth, width and channel bank slope. The applicant anticipates riffles would naturally develop in the transitional zones. Trees and shrubs are proposed to be established within the riparian zones at a rate of 400 stems per acre. The width of riparian zones would be 50 feet on all stream sides. The applicant proposes to monitor the constructed streams by evaluating the channels in accordance with the Qualitative Habitat Evaluation Index (QHEI) protocol. The applicant indicates constructed channels would achieve pre-impact QHEI scores to be considered successful.

To compensate for impacts to 1.13 acre of wetland, the applicant proposes to create 1.79 acres of wetlands in two areas on-site. The applicant proposes to monitor the constructed wetlands by evaluating the areas in accordance with the Ohio Rapid Assessment Method (ORAM) protocol. The applicant indicates constructed wetlands must achieve ORAM scores of at least 35 to be considered successful. The applicant indicates they do not own the surface rights of the land proposed to be affected in association with mining and therefore cannot propose perpetual protection of waters to be avoided and reconstructed.

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

**WATER QUALITY CERTIFICATION:** A Section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain that certification from the Ohio Environmental Protection Agency.

**HISTORIC & CULTURAL RESOURCES:** The National Register of Historic Places has been consulted and it has been determined there are no properties currently listed on the register that are in the area affected by the project. A copy of this public notice will be sent to the Ohio Historic Preservation Office for their review. Comments concerning archeological sensitivity of a project area should be based upon collected data.

**THREATENED & ENDANGERED SPECIES:** This project is located within the known or historic range of the Indiana bat (endangered); bald eagle (threatened); and eastern massasauga (C).

Based on project location and habitat availability, it has been determined this proposal would have no effect on the bald eagle or the eastern massasauga.

The project area does contain suitable habitat for the Indiana bat. In June 2005, the applicant conducted a mist net survey within the project limits. No Indiana bats were detected during this survey. The applicant would be required to address the requirements outlined in the Ohio Department of Natural Resources' *Permitting Policy Procedure Directive 2004-01: Measures for Protecting the Endangered Indiana Bat*. This project may affect, but is not likely to adversely affect, the Indiana bat, provided the applicant complies with the requirements outlined in the PPD referenced above.

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).

**PUBLIC INTEREST:** Any person who has an interest, which may be adversely affected by the issuance of a permit, 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 issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will 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 will 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. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.

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 will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for 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' permit should write:

U.S. Army Corps of Engineers  
ATTN: CELRH-OR-F Public Notice No. 2006-00484  
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 Ms. Desiree L. Hann of the North Regulatory Section at 304-399-5210.



Ginger Mullins  
Chief, Regulatory Branch

(O)

**Table 1.** Proposed impacts to jurisdictional streams on-site in association with the Wilson surface coal mine site, Stark County, Ohio.

Stream ID	Flow	QHEI	On-site stream length (linear feet)	Impact length (linear feet)	Coal Removal Impact (linear feet)	Sediment Pond Construction Impact (linear feet)	Sediment transport impact (linear feet)	Road construction impact (linear feet)
1	Int	41	809	733	187	130	416	
2	Int	43	242	243			243	
2A	Int	43.5	203	100			100	
3	Int	42	439	161	55		106	
5	Int	16	2595	100				100
5A	Int	32	245	71	71*			
6	Int	36	687	581			581	
7	Int	35	412	208			128	80
8	Int	37	257	0				
9	Int	35	337	237			237	
10	Int	20	913	336			336	
13	Int	46	352	0				
14	Int	42	398	315	26		289	
E	Eph	N/A	286	286	260		26	
H	Eph	N/A	366	366	120		246	
			8541	3737	719	130	2708	180

**Stream ID:** as described in the final investigation of waters of the U.S. prepared by Buckeye Mineral Services, Inc.

**Flow:** Designation of stream flow: I, Intermittent; E, Ephemeral

**QHEI:** Qualitative Habitat Evaluation Index scores as determined by the Ohio EPA's protocol;

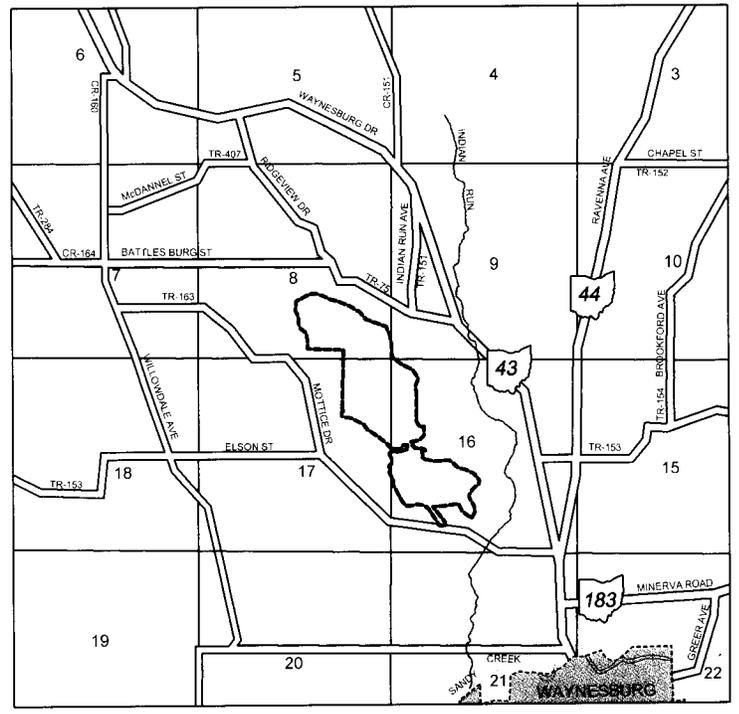
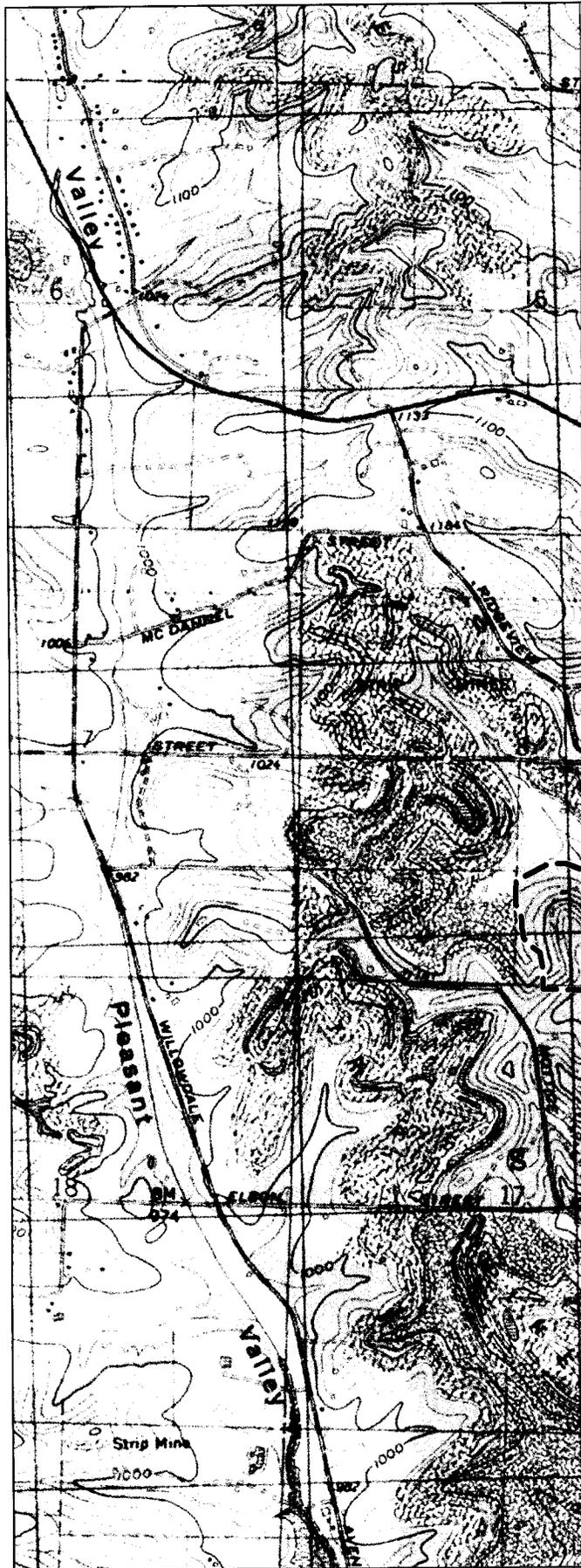
\*, 71 linear feet of stream 5A would be impacted in association with reclamation activities.

**Table 2.** Proposed impacts to jurisdictional wetlands on-site in association with the Wilson surface coal mine site, Stark County, Ohio.

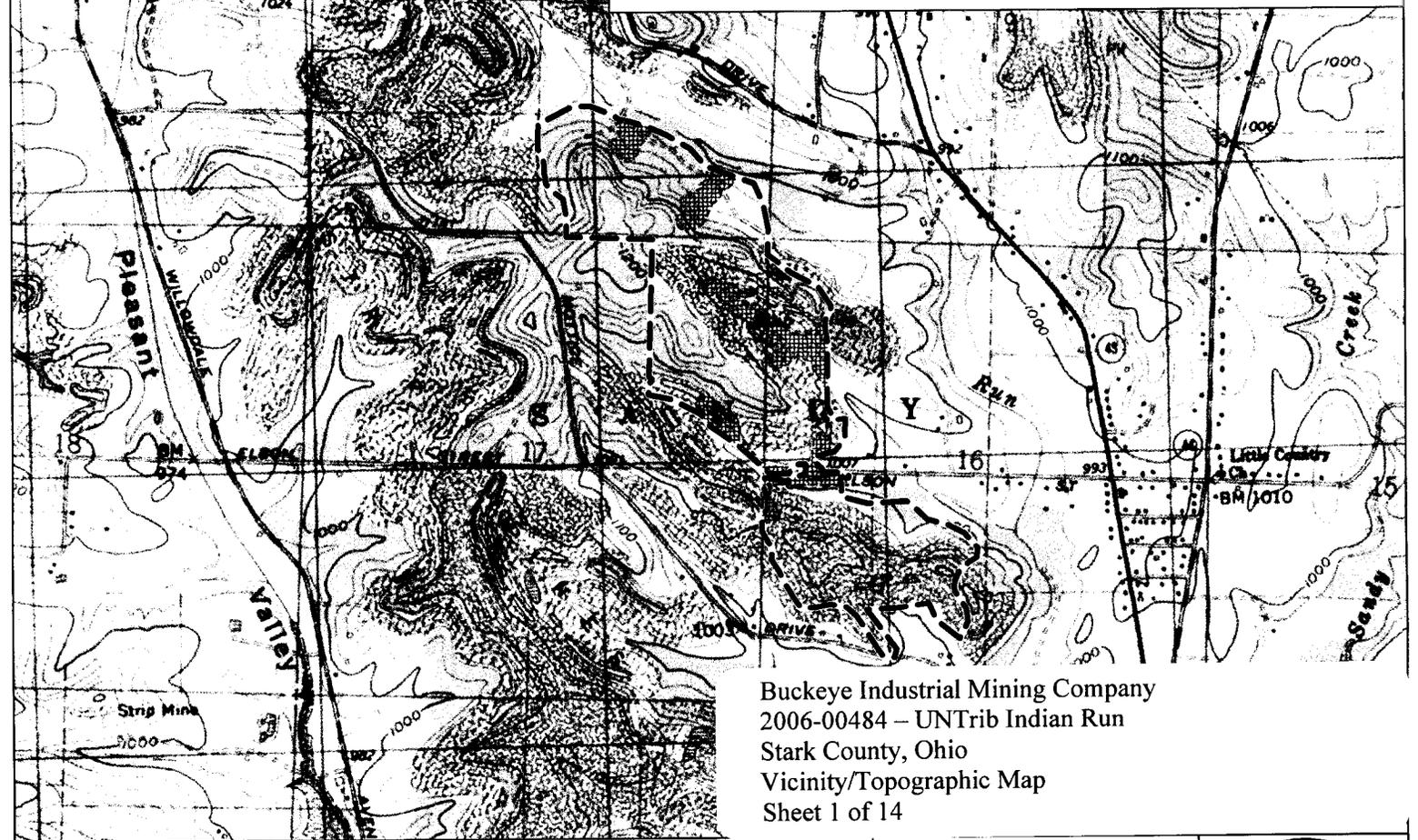
Wetland ID	ORAM score	Total Acreage	Impact Acreage
WD-2	32	0.48	0
WD-4	40	0.57	0.57
WD-5	34	0.05	0.05
WD-6	22	0.19	0
WD-7	26.5	0.24	0.24
WD-9	38	0.84	0
WD-14	35	0.27	0.27
Total		2.64	1.13

**Wetland ID:** as described in the final investigation of waters of the U.S. prepared by Buckeye Mineral Services, Inc.

**ORAM: Ohio Rapid Assessment Method** scores as determined by the Ohio EPA's protocol.

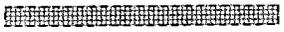


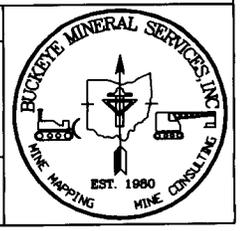
SCALE: 1" = 1 MILE  
 TWP: SANDY  
 QUAD: WAYNESBURG  
 COUNTY: STARK

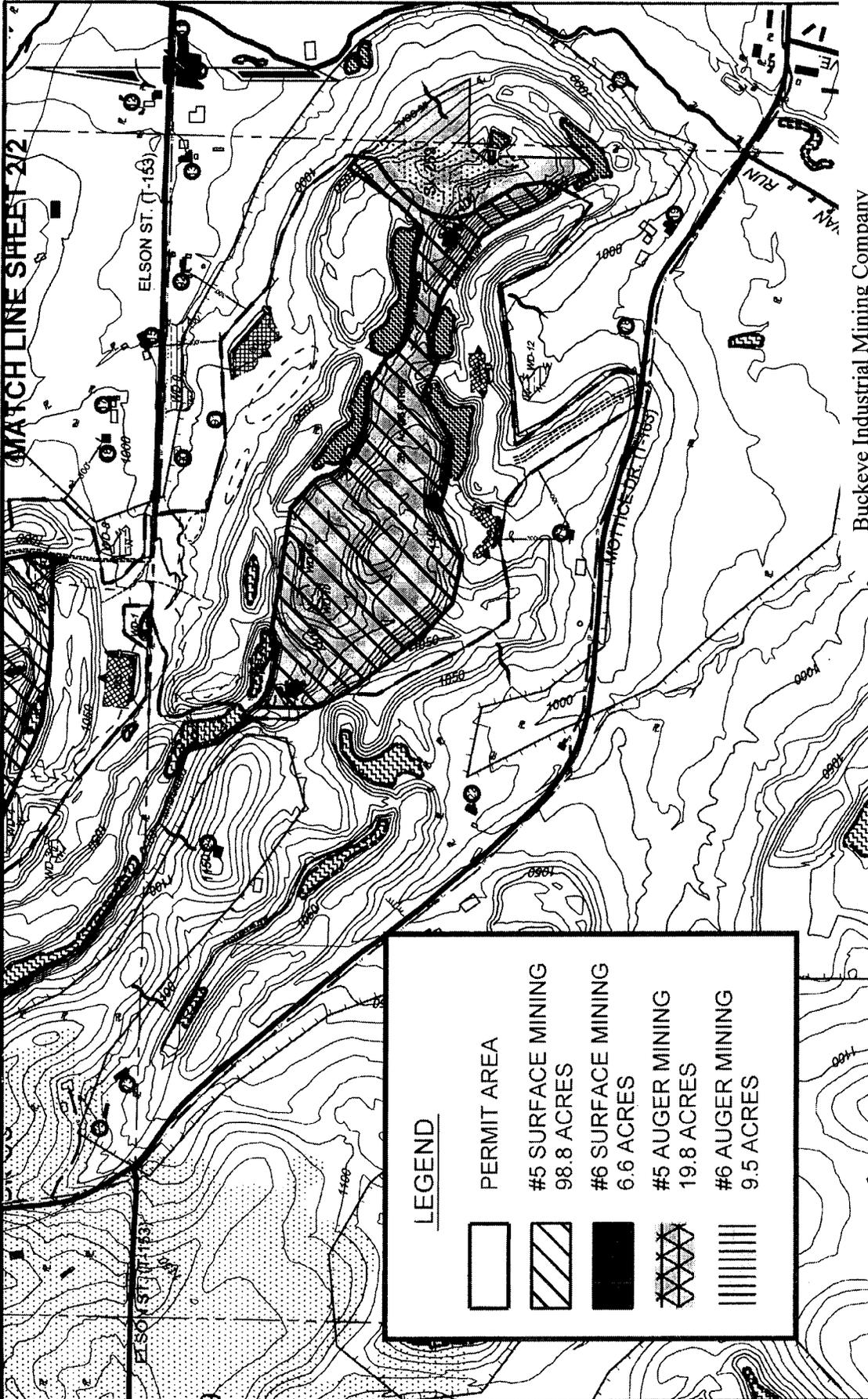


Buckeye Industrial Mining Company  
 2006-00484 – UNtrib Indian Run  
 Stark County, Ohio  
 Vicinity/Topographic Map  
 Sheet 1 of 14

SHEET TITLE:  
**LAND USE CHANGE MAP**  
 PROJECT NAME:  
**WILSON**  
 COMPANY NAME:  
**BUCKEYE INDUSTRIAL MINING CO.**

DATE: 2/12/07 REV: \_\_\_\_\_ SCALE: 1" = 2000'  
 NOTES: PROPOSED PERMIT LIMITS   
 BUFFER ZONE 



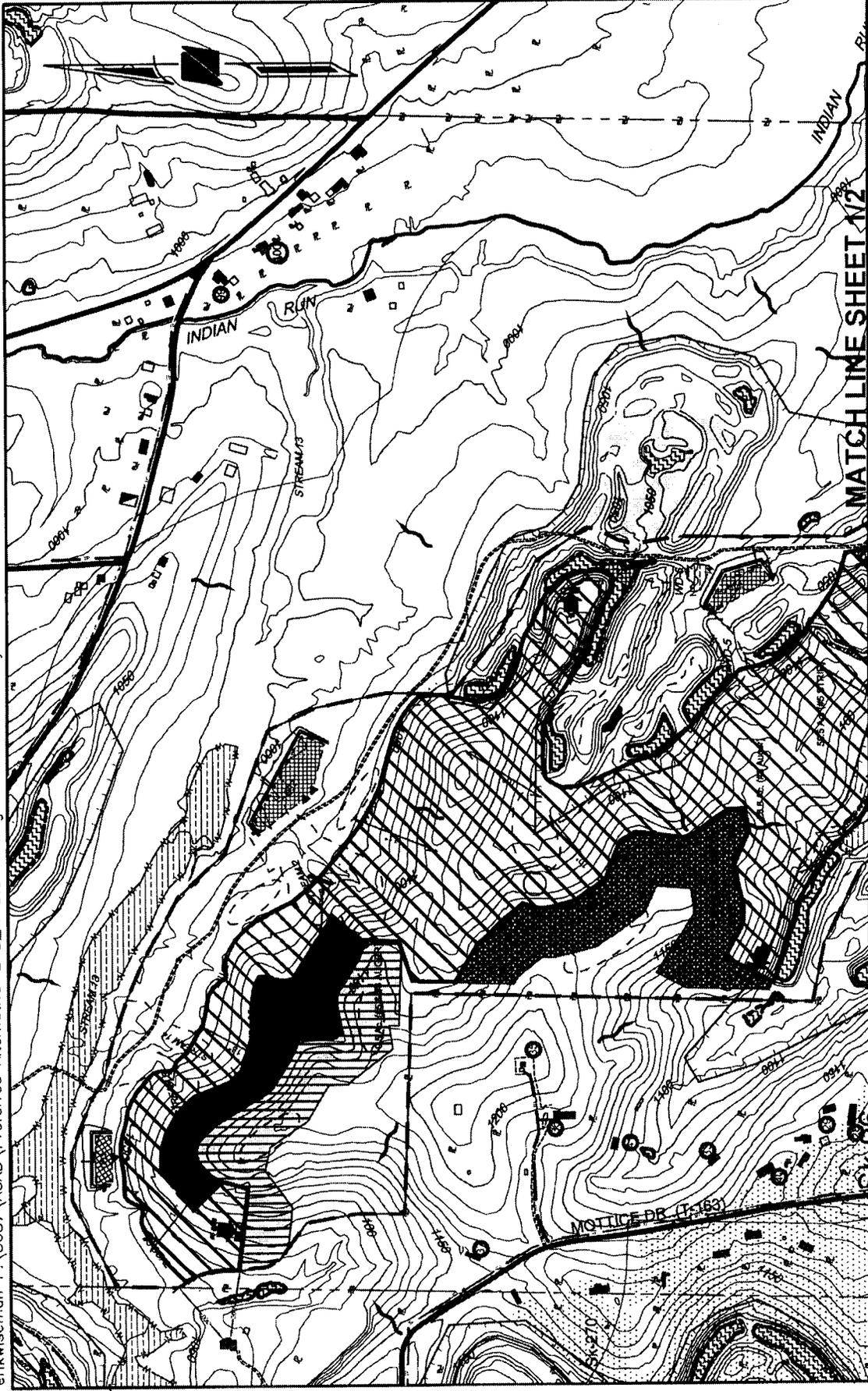


Buckeye Industrial Mining Company  
 2006-00484 – UNTriB Indian Run  
 Stark County, Ohio  
 Plan view – Southern part of site  
 Sheet 2 of 14

SCALE: 0 300 600 FEET	DATE: 05/10/07	SHEET: 1 / 2
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erikwiseman P:\8087\ACAD\Preferred Alternative-2\_B\_W 8.5x11.dwg Preferred Alt Layout AUG 06, 2007 5:09 PM



**PREFERRED  
ALTERNATIVE**

Buckeye Industrial Mining Company  
 2006-00484 – UNTriB Indian Run  
 Stark County, Ohio  
 Plan view – Northern part of site  
 Sheet 3 of 14

**R.D.Zar  
& Associates**

SCALE: 0 300 600 FEET	DATE: 05/10/07	SHEET: 2 / 2
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**STREAM LENGTHS**

STREAM (INTER.)	LENGTH (FT.)
1	823'
2	243'
2A	100'
3	161'
5	100'
5A	71'
6	581'
7	208'
9	237'
10	336'
10A	700'
14	315'
Total	3875'
(EPHEM.)	
B	254'
E	286'
H	366'
Total	906'
OVERALL TOTAL	4,781'

**WETLAND AREAS**

WETLAND	AREA (AC.)
4	0.57
5	0.05
7	0.24
14	0.27
Total	1.13
WMA-1	1.27
WMA-2	0.52
OVERALL TOTAL	1.79

MATCH LINE SHEET 1/2

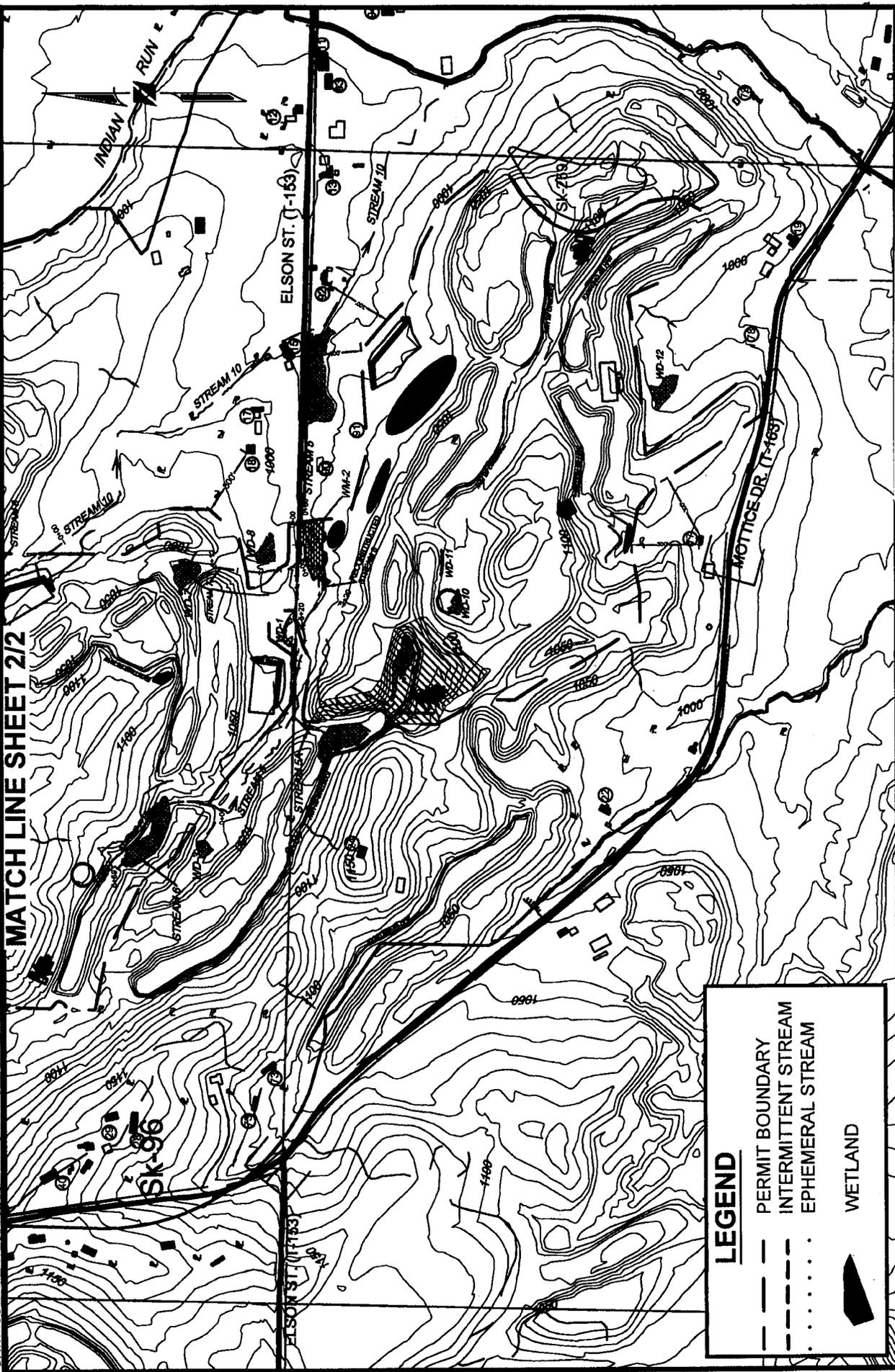
**FIGURE 3. RECLAMATION AND PROPOSED WILSON MINE SITE**

Buckeye Industrial Mining Company  
 2006-00484 - UNTribe Indian Run  
 Stark County, Ohio  
 Plan view - Reclamation - Northern part of site  
 Sheet 4 of 14

DATE: MAY 2007

SCALE: 1"=600'

MATCH LINE SHEET 2/2



**LEGEND**

- PERMIT BOUNDARY
- - - INTERMITTENT STREAM
- ..... EPHEMERAL STREAM
- WETLAND

DATE: MAY 2007

SCALE: 1"=600'

**FIGURE 3. RECLAMATION AND M PROPOSED WILSON MINE SITE,**

Buckeye Industrial Mining Company  
 2006-00484 – UN/Trib Indian Run  
 Stark County, Ohio  
 Plan view – Reclamation – Southern part of site  
 Sheet 5 of 14

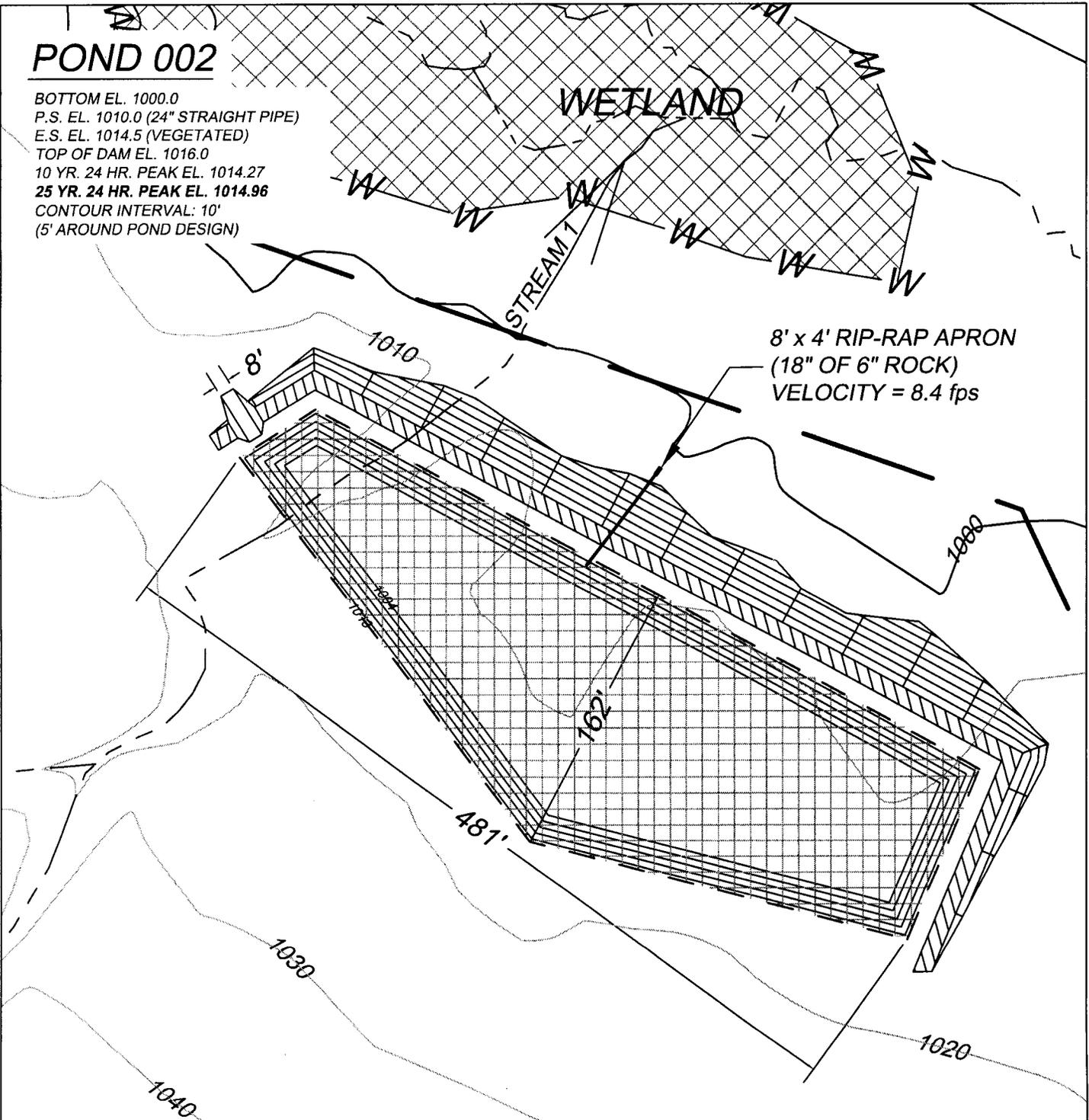
# POND 002

BOTTOM EL. 1000.0  
 P.S. EL. 1010.0 (24" STRAIGHT PIPE)  
 E.S. EL. 1014.5 (VEGETATED)  
 TOP OF DAM EL. 1016.0  
 10 YR. 24 HR. PEAK EL. 1014.27  
 25 YR. 24 HR. PEAK EL. 1014.96  
 CONTOUR INTERVAL: 10'  
 (5' AROUND POND DESIGN)

WETLAND

STREAM 1

8' x 4' RIP-RAP APRON  
 (18" OF 6" ROCK)  
 VELOCITY = 8.4 fps

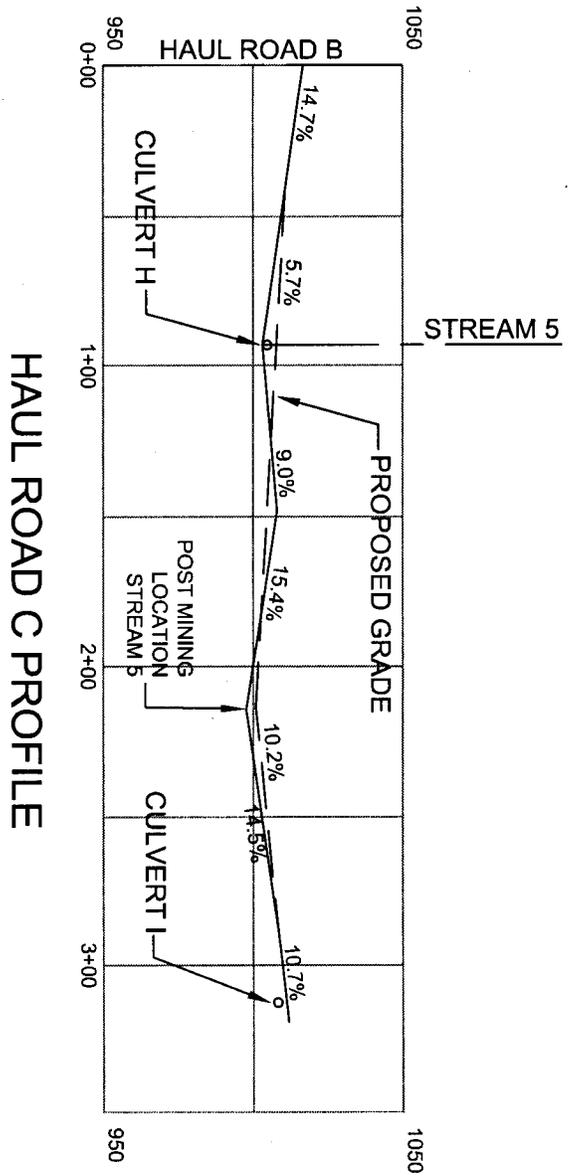
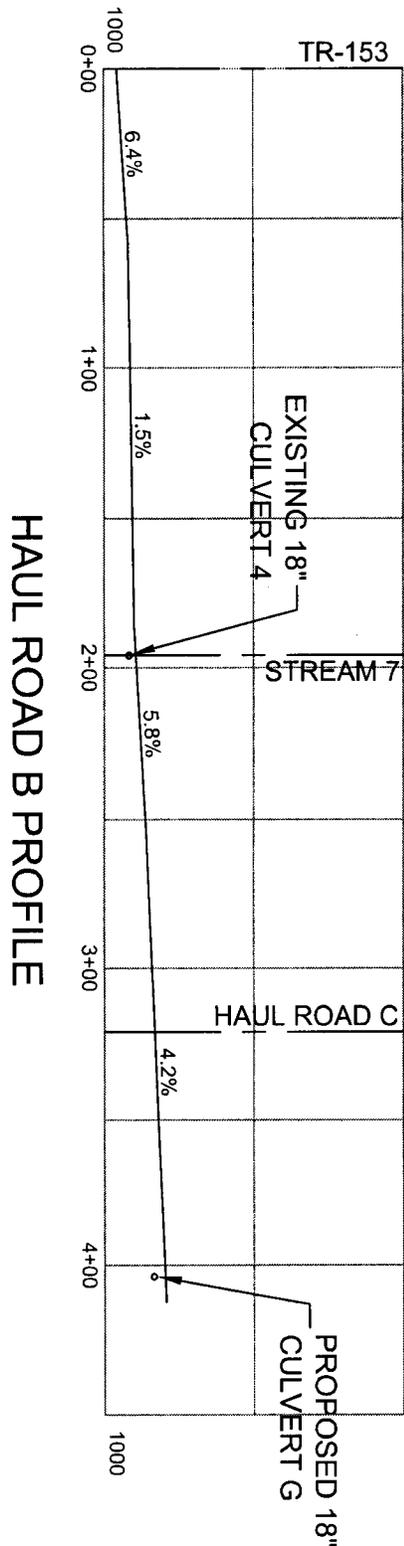


Buckeye Industrial Mining Company  
 2006-00484 – UNTribe Indian Run  
 Stark County, Ohio  
 Plan view - Pond 002  
 Sheet 6 of 14

SHEET TITLE: <b>POND DESIGN</b>	DATE: 8/16/07	SCALE: 1" = 80'
	DRAWN BY: CJW	
PROJECT NAME: <b>WILSON</b>	NOTES:	

COMPANY NAME:  
**BUCKEYE INDUSTRIAL MINING CO.**





SHEET TITLE:  
**HAUL ROADS**

PROJECT NAME:  
**WILSON**

COMPANY NAME:  
**BUCKEYE INDUSTRIAL**

DATE: 8/16/07

DRAWN BY: CJW

NOTES:

SCALE: 1" = 60'

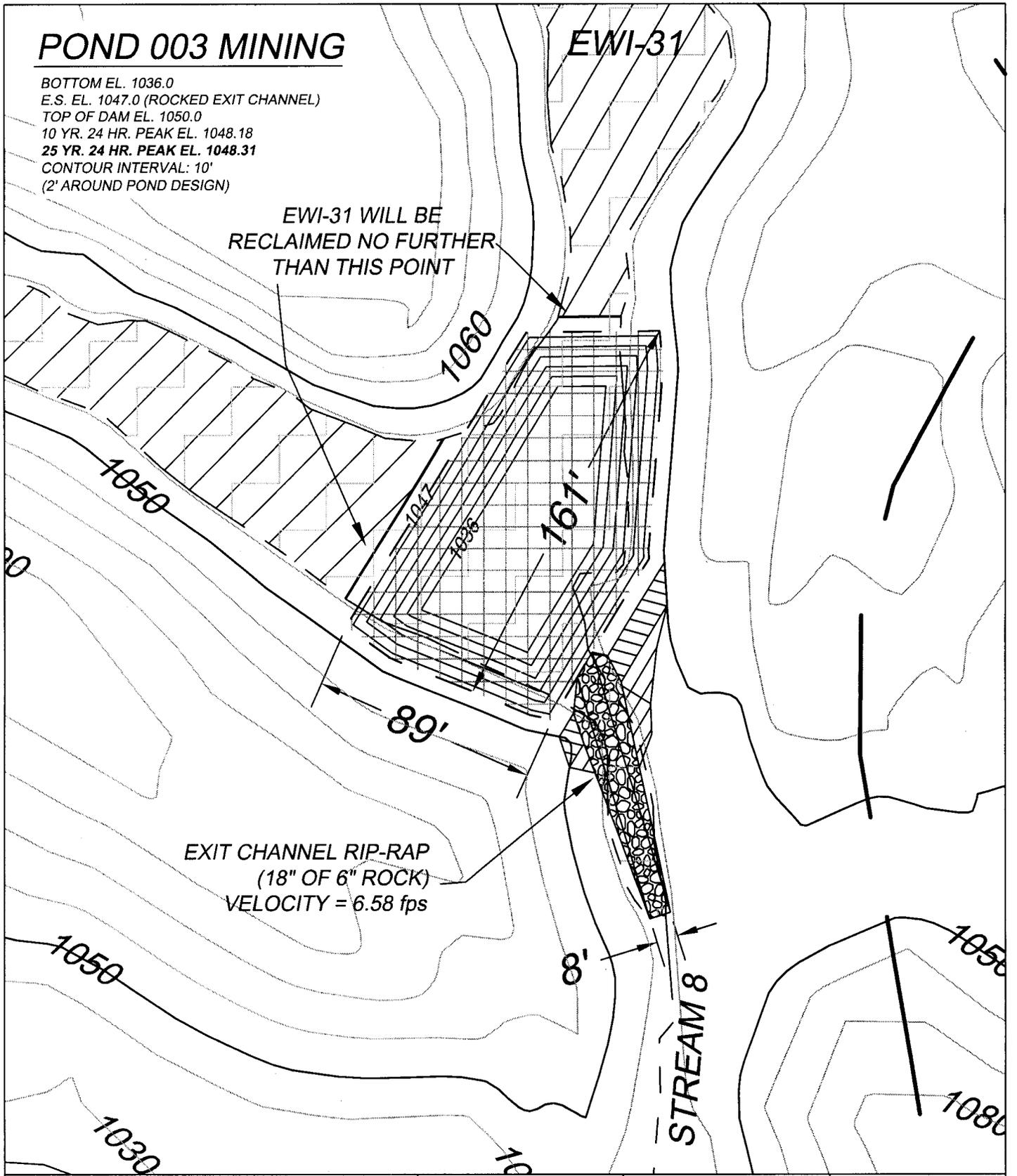


Buckeye Industrial Mining Company  
2006-00484 – UNTribe Indian Run  
Stark County, Ohio  
Cross-sections of Roads B and C  
Sheet 7 of 14

# POND 003 MINING

BOTTOM EL. 1036.0  
 E.S. EL. 1047.0 (ROCKED EXIT CHANNEL)  
 TOP OF DAM EL. 1050.0  
 10 YR. 24 HR. PEAK EL. 1048.18  
 25 YR. 24 HR. PEAK EL. 1048.31  
 CONTOUR INTERVAL: 10'  
 (2' AROUND POND DESIGN)

EWI-31 WILL BE  
 RECLAIMED NO FURTHER  
 THAN THIS POINT

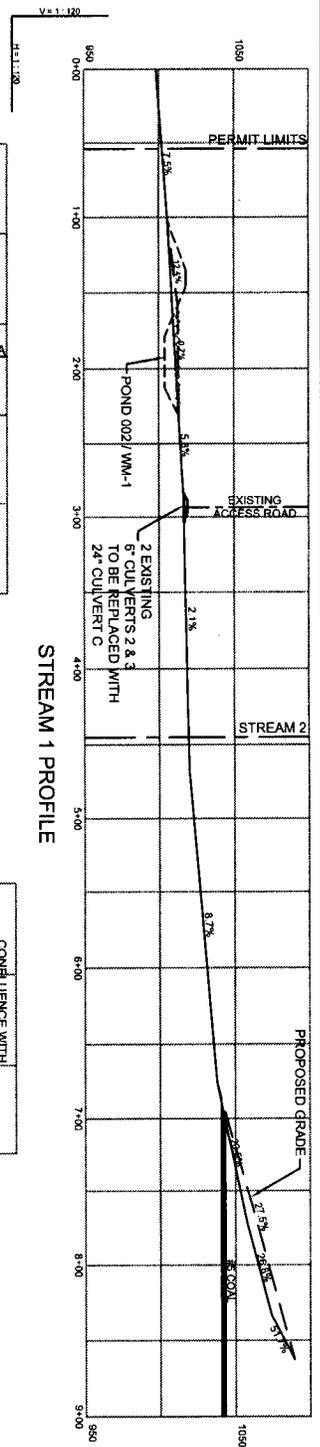
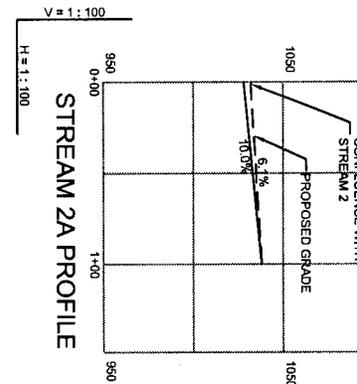
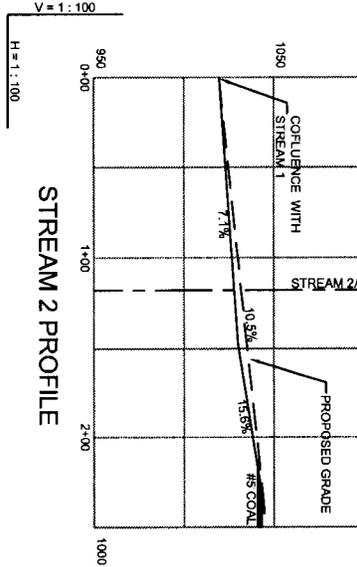
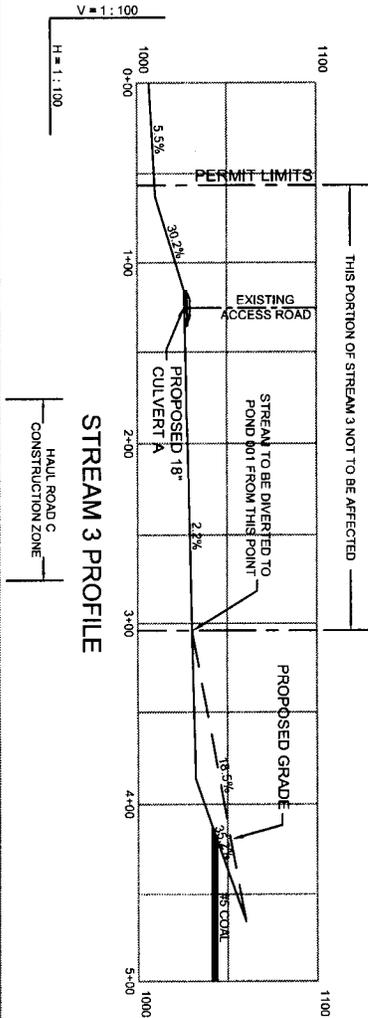
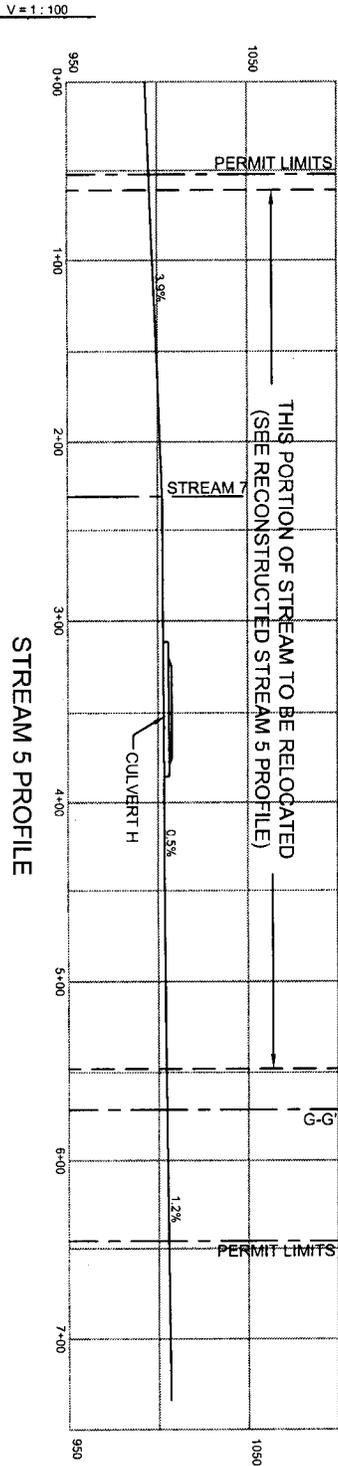


EXIT CHANNEL RIP-RAP  
 (18" OF 6" ROCK)  
 VELOCITY = 6.58 fps

STREAM 8

SHEET TITLE: <b>POND DESIGN</b>	DATE: 8/16/07	SCALE: 1" = 50'
PROJECT NAME: <b>WILSON</b>	DRAWN BY: CJW	
COMPANY NAME: <b>BUCKEYE I</b>	NOTES: Buckeye Industrial Mining Company 2006-00484 – UNTribe Indian Run Stark County, Ohio Plan view – Pond 003 Sheet 8 of 14	





SHEET TITLE:  
**STREAMS 1**

PROJECT NAME:  
**WILSON**

COMPANY NAME:  
**BUCKEYE**

DATE: 8/16/07

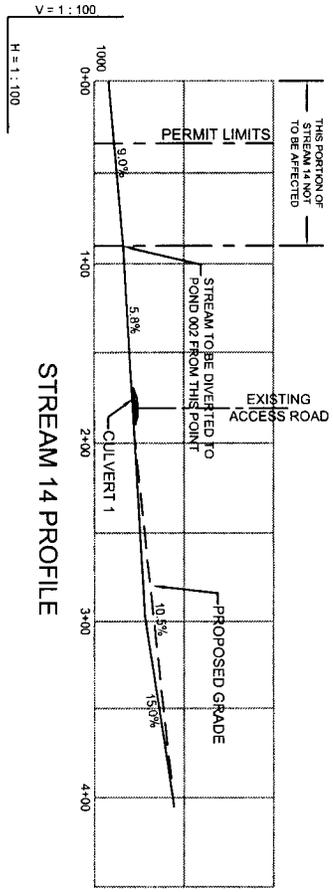
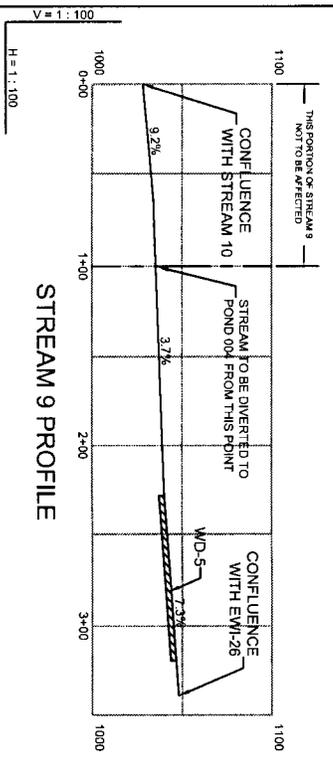
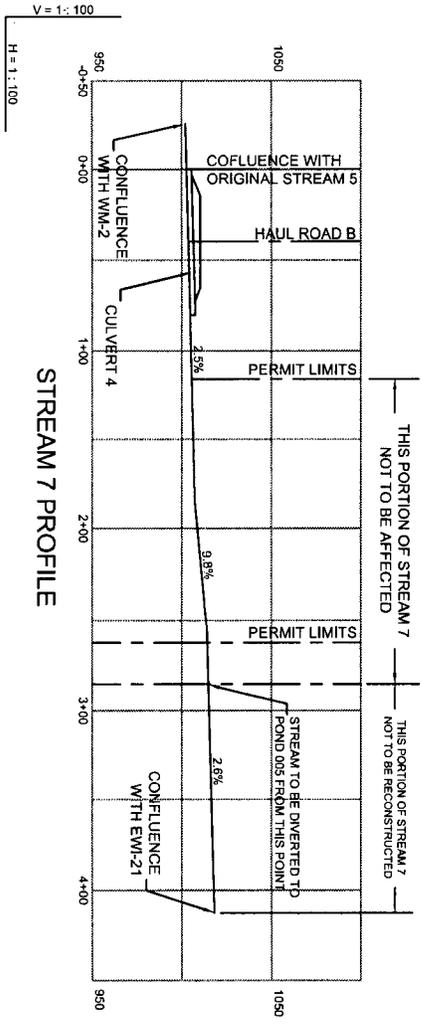
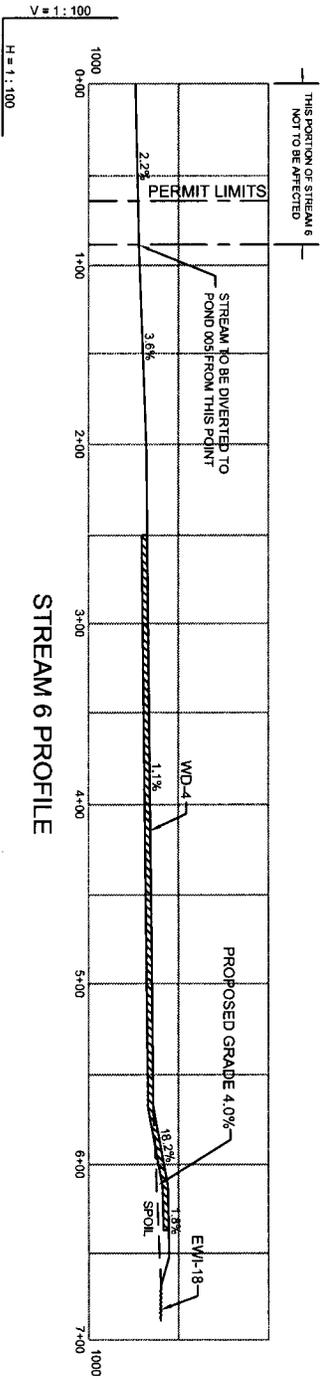
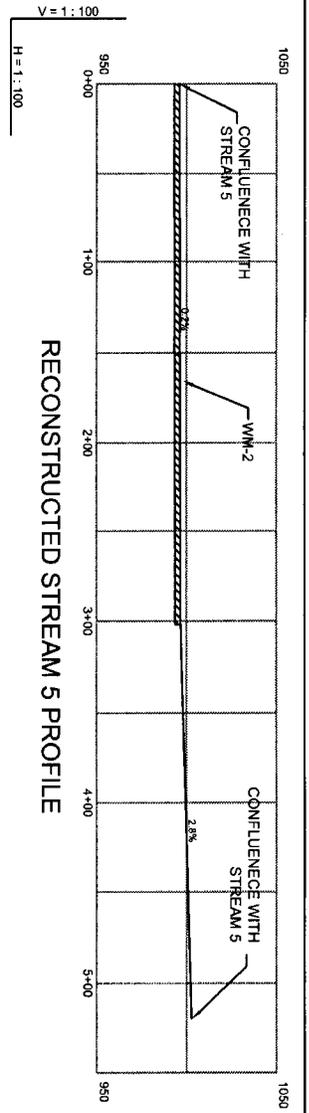
DRAWN BY: CJW

NOTES:

SCALE: AS SHOWN

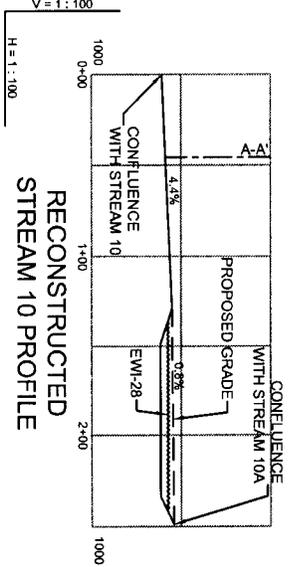
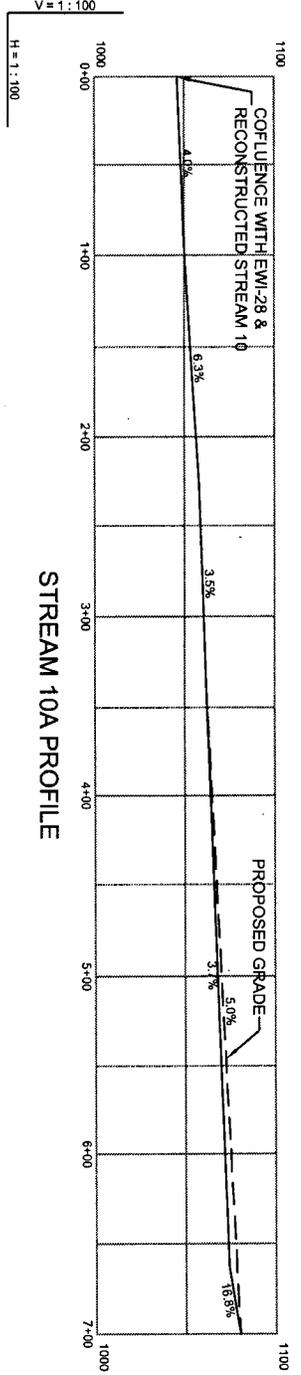
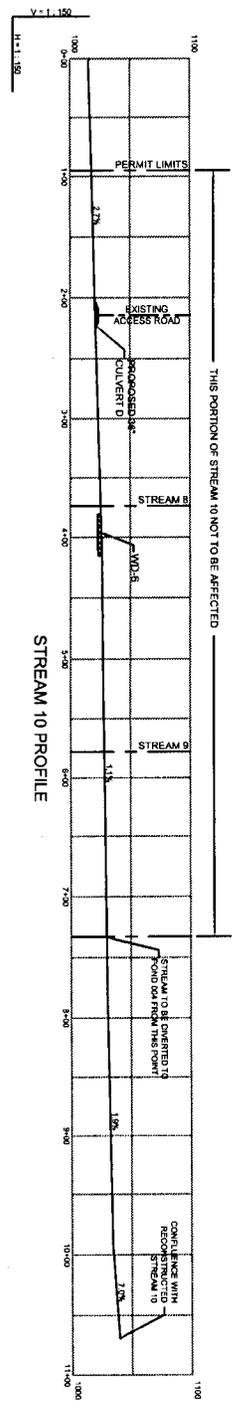
Buckeye Industrial Mining Company  
2006-00484 – UNTribe Indian Run  
Stark County, Ohio  
Cross-sections – Streams 1-5  
Sheet 9 of 14





SHEET TITLE: <b>STREAMS 2</b>	DATE: 8/16/07	SCALE: AS SHOWN	
	PROJECT NAME: <b>WILSON</b>	DRAWN BY: CJW	
COMPANY NAME: <b>BUCKEYE II</b>	NOTES:		

Buckeye Industrial Mining Company  
 2006-00484 – UNTribe Indian Run  
 Stark County, Ohio  
 Cross-sections – Streams 5-9 and 14  
 Sheet 10 of 14

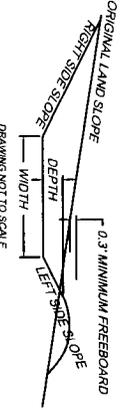


APPENDIX TO PART 3, E(2)  
CULVERT: EXISTING ACCESS ROAD

CULVERT IDENTIFICATION	1	2	3	4
EXISTING (E), PROPOSED (P) OR EXISTING TO BE IMPROVED (EI)	EI	EI	EI	EI
MAX ALLOWABLE FLOW (Q (CFS))	1.53	1.07	1.07	0.43
DESIGN FLOW (Q (CFS))	1.60	2.90	2.90	0.83
CULVERT SLOPE (%)	3.9	2.2	2.2	2.5
HEAD (FT) OVER (E)	6.0	2.0	2.0	2.0
TAIL (FT) UNDER (E)	8	6	6	18
CULVERT SIZE (IN)	20	20	20	18
CULVERT LENGTH (FT)	53	53	53	53
CULVERT TYPE	SS	SS	SS	SS
VELOCITY (FPS)	10.1	5.4	5.4	4.8

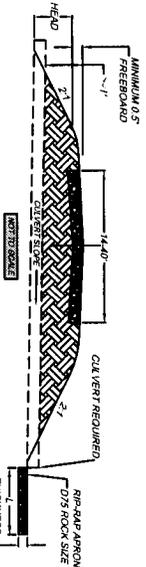
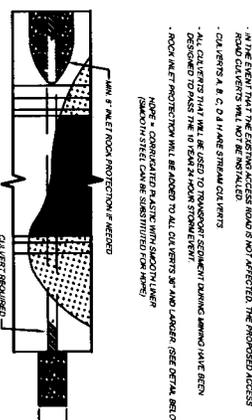
APPENDIX TO PART 3, ITEM H(2)  
STREAM DIVERSION IDENTIFICATION

STREAM DIVERSION IDENTIFICATION	<=3%	>3%
WATERSHED (ACRES)	34.1	24.1
PEAK FLOW (CFS)	111.03	117.03
100 YEAR FLOW STORM EVENT (IN)	3.72	3.72
TRAPEZOIDAL DITCH		
BOTTOM WIDTH (FT)	4.0	6.0
DEPTH (FT)	2.59	1.62
EARTH VEGE/TVD OR ROCKEN	R	R
DESIGN ROCK SIZE (IN)	6.0	6.0
MINIMUM DIVERSION SLOPE (%)	2.0	10.0
VELOCITY (FPS)	6.53	8.75
RIGHT SIDE SLOPE	2:1	3:1
LEFT SIDE SLOPE	2:1	3:1



APPENDIX TO PART 3, E(2) - CULVERT DESIGNS  
PROPOSED HULL ROAD/ACCESS ROAD

CULVERT IDENTIFICATION	A	B	C	D	E	F	G	H	I
EXISTING (E), PROPOSED (P) OR ACCESS ROAD (A/R) IDENTIFICATION	P	P	P	P	P	P	P	P	P
MAX ALLOWABLE FLOW (Q (CFS))	48	48	48	48	48	48	48	48	48
DESIGN FLOW (Q (CFS))	9.0	1.53	1.07	1.07	1.13	1.13	32.2	6.8	6.8
CULVERT SLOPE (%)	3.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
HEAD (FT) OVER (E)	6.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TAIL (FT) UNDER (E)	8	6	6	6	6	6	6	6	6
CULVERT SIZE (IN)	20	20	20	20	20	20	20	20	20
CULVERT LENGTH (FT)	53	53	53	53	53	53	53	53	53
CULVERT TYPE	SS	SS	SS						
VELOCITY (FPS)	10.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
RIGHT SIDE SLOPE	2:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
LEFT SIDE SLOPE	2:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1



SHEET TITLE:  
**STREAMS 3**

PROJECT NAME:  
**WILSON**

COMPANY NAME:  
**BUCKEYE**

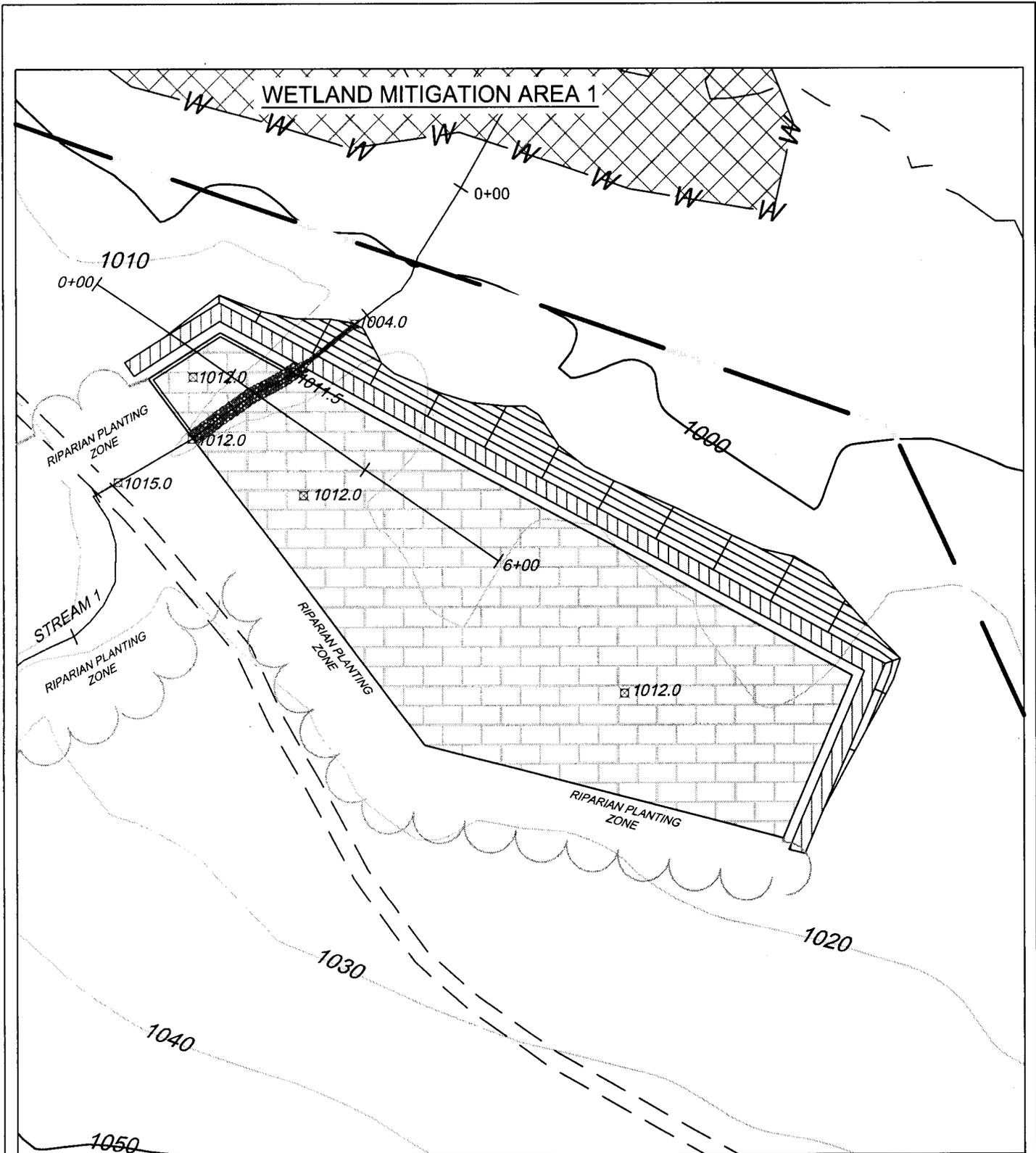
DATE: 8/16/07  
SCALE: AS SHOWN

DRAWN BY: CJW

NOTES:



Buckeye Industrial Mining Company  
2006-00484 - UNTribe Indian Run  
Stark County, Ohio  
Cross-sections - Stream 10  
Sheet 11 of 14



SHEET TITLE:

**WETLAND MITIGATION 1**

DATE: 8/16/07

SCALE: 1" = 80'

PROJECT NAME:

**WILSON**

DRAWN BY: CJW

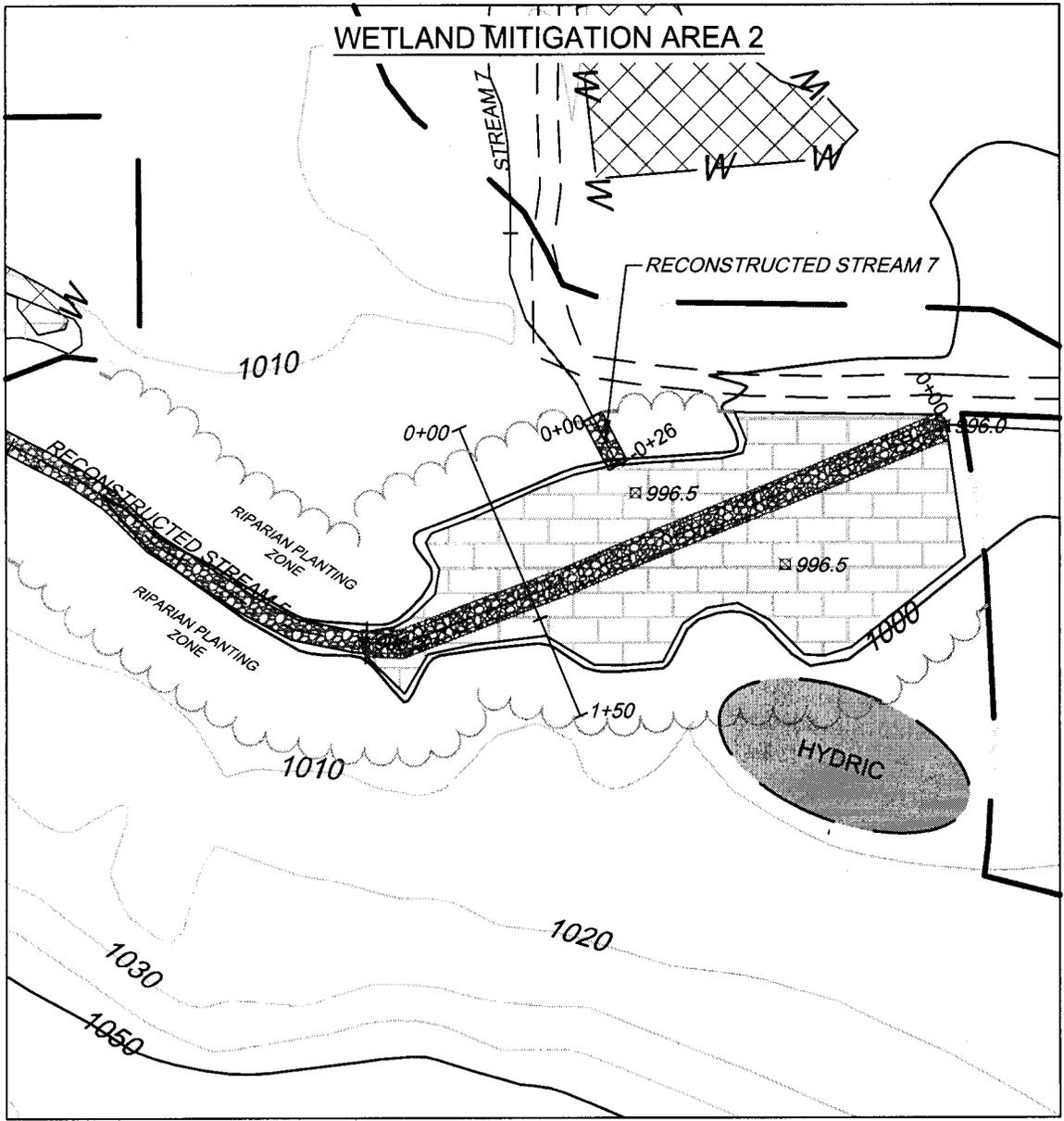
NOTES:

COMPANY NAME:

**BUCKEYE**

Buckeye Industrial Mining Company  
 2006-00484 - UNtrib Indian Run  
 Stark County, Ohio  
 Wetland Mitigation Area 1 - Plan view  
 Sheet 12 of 14





SHEET TITLE:

**WETLAND MITIGATION 2**

DATE: 8/16/07

SCALE: 1" = 80'

DRAWN BY: CJW

PROJECT NAME:

**WILSON**

COMPANY NAME:

**BUCKEY**

Buckeye Industrial Mining Company  
 2006-00484 – UNtrib Indian Run  
 Stark County, Ohio  
 Wetland Mitigation Area 2 – Plan view  
 Sheet 13 of 14



**WETLAND MITIGATION PLAN**

APPROXIMATELY 1.13 ACRES OF WETLAND HABITAT WILL BE IMPACTED BY MINING AND ARE PROPOSED TO BE REPLACED AT A MITIGATION RATIO OF 1.5:1 FOR A TOTAL OF 1.7 ACRES OF WETLANDS.

THE WETLAND MITIGATION PLAN INVOLVES USING THE PROPOSED "TO BE CONSTRUCTED" EMBANKMENT POND 002. FOLLOWING MINING AND RECLAMATION, THIS POND WILL BE MODIFIED AS THE DRAWING INDICATES. THE WETLAND MITIGATION PLAN ALSO INVOLVES THE CONSTRUCTION OF WETLAND MITIGATION AREA 2, THIS WETLAND WILL BE CONSTRUCTED AS THE DRAWING INDICATES.

**MODIFICATIONS WILL INCLUDE THE FOLLOWING**

**WETLAND MITIGATION AREA 1(WM-1):**

\*POND 002 WILL REMAIN FOR A MINIMUM OF TWO YEARS AFTER MINING AND RECLAMATION ACTIVITIES HAVE BEEN COMPLETED TO ENSURE PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED. WETLAND CONSTRUCTION WILL BE COORDINATED WITH THE MODIFICATIONS OF POND 002. THE ORIGINAL PROPOSED PRINCIPLE & EMERGENCY SPILLWAYS WILL BE REMOVED AND A ROCK LINED OPEN CHANNEL SPILLWAY WILL BE CONSTRUCTED.

\*THE BOTTOM ELEVATION OF POND 002 WILL BE MADE TO BE A DIFFERENCE OF NO GREATER THAN ONE FOOT FROM THE PROPOSED OPEN CHANNEL SPILLWAY.

\*THE ACCUMULATED SEDIMENT IN THE POND WILL SERVE AS THE HYDRIC SOIL MEDIUM DURING WETLANDS CONSTRUCTION AND MONITORING.

\*A ROCK STREAM CHANNEL, STREAM 1, WILL FLOW THROUGH WETLAND MITIGATION AREA 1. THIS WILL MINIMIZE THE DEGRADATION OF THE HYDRIC SOILS DURING INCREASED RAINFALL AND PROVIDE SOIL STABILITY AS WATER FLOWS THROUGH THE WETLAND AREA.

\*THIS AREA WILL BE PERIODICALLY FLOODED IN A SIMILAR MANNER TO WHICH EXISTING WETLAND AREAS ARE INUNDATED

\*25' RIPARIAN TREE ZONE; THIS AREA WILL HAVE TREES AND SHRUBS PLANTED AS TO CONTROL SEDIMENT RUNOFF, ADD NATURAL SHADING AND WIND PROTECTION FOR INTERIOR STRUCTURES.

\*THE WETLAND IS TO BE CONSTRUCTED IN THIS LOCATION TO PROVIDE CONNECTIVITY TO STREAM 1 AND STREAM 13.

**WETLAND MITIGATION AREA 2(WM-2):**

\*PRIOR TO MINING, THE HYDRIC SOILS PRESENT IN THE DELINEATED WETLANDS WILL BE REMOVED AND STOCKPILED SEPERATELY FROM THE OTHER REMOVED TOPSOIL. THE REMOVED HYDRIC SOIL WILL BE USED TO RE-SOIL WETLAND MITIGATION AREA 2, TO A MINIMUM SOIL THICKNESS OF 1.5 FEET, FOLLOWING MINING AND RECLAMATION.

WETLAND MITIGATION AREA 2 WILL BE CREATED IN THE VALLEY OF EXISTING STREAM 5 AS SHOWN ON THE PLAN VIEW. THE WETLAND AREA WILL BE CONSTRUCTED TO THE SOUTH OF STREAM 5 AND WILL COMPRISE A TOTAL ACREAGE OF AT LEAST 0.52 ACRES. AFTER FLOODPLAINS ARE GRADED AND HYDRIC TOPSOILS ARE DISTRIBUTED OVER THE DESIGNATED WETLAND MITIGATION AREAS, FINAL GRADING WILL BE COMPLETED.

\*A ROCK STREAM CHANNEL, RECONSTRUCTED STREAM 5, WILL FLOW THROUGH WETLAND MITIGATION AREA 2. THIS WILL MINIMIZE THE DEGRADATION OF THE HYDRIC SOILS DURING INCREASED RAINFALL AND PROVIDE SOIL STABILITY AS WATER FLOWS THROUGH THE WETLAND AREA.

\*THIS AREA WILL BE PERIODICALLY FLOODED IN A SIMILAR MANNER TO WHICH EXISTING WETLAND AREAS ARE INUNDATED

\*100' RIPARIAN TREE ZONE; THIS AREA WILL HAVE TREES AND SHRUBS PLANTED AS TO CONTROL SEDIMENT RUNOFF, ADD NATURAL SHADING AND WIND PROTECTION FOR INTERIOR STRUCTURES.

\*THE WETLAND IS TO BE CONSTRUCTED IN THIS LOCATION TO PROVIDE CONNECTIVITY TO STREAM 5 AND STREAM 7.

THIS PROPOSAL WILL PROVIDE DIVERSE QUALITY WETLAND HABITATS THAT ENHANCE THE RECONSTRUCTED WETLAND AREAS FOR WATERFOWL AND AQUATIC LIFE.

**REVEGETATION PLAN**

THE PLANTING PLAN AS ADDRESSED IN ADDENDUM TO PART 3, ITEM D(6)(b) WILL BE USED FOR THE REPLANTING OF THE BUFFER ZONES AND AROUND THE CONSTRUCTED WETLAND AREAS. THE WETLANDS WILL HAVE A MINIMUM WIDTH OF 25' OF TREE PLANTING AROUND THE PERIMETER OF THE WETLAND MITIGATION AREAS AS SHOWN ON THE PLAN VIEWS. THE MONITORING PERIOD SHOULD ALLOW FOR THE ESTABLISHMENT OF NATURAL WETLAND VEGETATION.

THE REMOVED HYDRIC SOILS GENERALLY CONTAIN A SATISFACTORY SEED BANK TO REVEGETATE THE RECONSTRUCTED WETLANDS. SUPPLEMENTAL SEEDING WITH WETLAND SPECIES WILL MINIMIZE THE POTENTIAL FOR INVASIVE SPECIES ENCROACHMENT AND DOMINANCE.

**WETLAND VEGETATION AND PLANTING PLAN:**

THE FOLLOWING LIST IS COMPRISED OF SUITABLE, NON-INVASIVE WETLAND SPECIES BUCKEYE INDUSTRIAL MINING COMPANY WILL SELECT FROM WHEN PERFORMING THE SUPPLEMENTAL SEEDING OF THE HYDRIC SOILS. AS OF THIS TIME, THE LIST CONTAINS TEN (10) SEPARATE SPECIES OF WHICH THE OPERATOR WILL SELECT A MINIMUM OF FOUR (4) SPECIES FROM THE LIST.

- |                     |                   |
|---------------------|-------------------|
| ACORUS CALAMUS      | SWEET FLAG        |
| LINDERA BENZOIN     | SPICEBUSH         |
| ASCLEPIAS INCARNATE | SWAMP MILKWEED    |
| PELTANDRA VIRGINICA | ARROW ARUM        |
| HELENIUM AUTUMNALE  | SNEEZEWEED        |
| POA PALUSTRIS       | FOWL BLUEGRASS    |
| LEERSIA ORYZOIDES   | RICE CUTGRASS     |
| POA TRIVIALIS       | ROUGH BLUEGRASS   |
| SPARTINA PECTINATA  | PRAIRIE CORDGRASS |
| VERBENA HASTATA     | BLUE VERVAIN      |

NORMAL AGRICULTURAL PRACTICES WILL BE USED (I.E. DISCING, SEEDING WITH A GRAIN DRILL AND/OR HURRICANE SPINNERS). COMMERCIAL SPREADERS WILL DISTRIBUTE LIME AND FERTILIZER. SOIL AMENDMENTS WILL BE ADDED PER THE RESULT OF THE HYDRIC SOIL TEST. SOIL SAMPLES WILL BE TAKEN BY DIGGING INTO HYDRIC SOIL PILES AT SEVERAL LOCATIONS PRIOR TO RESOILING THE WETLAND MITIGATION AREAS.

SUCCESS OF REVEGETATION WILL ADHERE TO ODNr, DIVISION OF MINERAL RESOURCES MANAGEMENT REQUIREMENTS; THE RECONSTRUCTED SCRUB-SHRUB WETLANDS WILL BE MONITORED ANNUALLY FOR VEGETATIVE SUCCESS, ANY AREAS DEEMED UNSATISFACTORY DURING ANNUAL MONITORING WILL BE REVEGETATED PER THE PLANTING PLAN. PERFORMANCE STANDARDS FOR THE MITIGATION AREAS ARE ATTAINING DRAM SCORES EQUAL TO OR GREATER THAN THE PRE-MINING CONDITIONS. IF THE DESIRED PERFORMANCE IS NOT ACHIEVED BY THE END OF THE 5-YEAR ANNUAL MONITORING PERIOD, BUCKEYE INDUSTRIAL MINING COMPANY WILL NEGOTIATE WITH THE CORPS APPROPRIATE ACTIONS TO ACHIEVE THE DESIRED PERFORMANCE.

SHEET TITLE: <b>WETLAND MITIGATION 3</b>	DATE: 8/16/07	
	DRAWN BY: CJW	
PROJECT NAME: <b>WILSON</b>	NOTES:	
COMPANY NAME: <b>BUCKEYE</b>	Buckeye Industrial Mining Company 2006-00484 – UNTriB Indian Run Stark County, Ohio Details – Wetland mitigation areas Sheet 14 of 14	