

8b. Purpose: Describe the purpose, need and intended use of the activity:

The applicant intends to develop and operate a surface coal mine and to reclaim the same when no longer needed. The mining operation requires a permit from the State of Ohio, Department of Natural Resources, Division of Mineral Resources Management (DMRM). This particular site was chosen based on topography, coal elevation and structure, and market area. Oxford has made a considerable investment to acquire surface mining rights and perform exploratory drilling, soil sampling, hydrologic studies, and engineering to delineate waters of the United States, and evaluate potential environmental impacts and mitigation measures. Significant capital investment is planned for the operation. The resultant impact will be an economic stimulus to the area.

Work will begin immediately upon permit issuance. The DMRM permit has a five year life with the opportunity to renew in five year increments. The proposed mining operation is expected to be completed within five years.

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards). (OAC 3745-1-05(B)(2)(a))

Fill material is mainly shale. Dredging is not proposed. Quantity of fill under the three alternatives:

Streams: Non-degradation = 0 cy; Minimal degradation = 112.8 cy; Preferred degradation = 132.4 cy.

Wetlands: Non-degradation = 0 cy; Minimal degradation = 435.6 cy; Preferred degradation = 435.6 cy.

Open Water: Non-degradation = 0 cy; Minimal degradation = 2,517 cy; Preferred degradation = 2,517 cy.

9. Waterbody and location of waterbody or upland where activity exists or is proposed, or location in relation to a stream, lake, wetland, wellhead or water intake (if known). Indicate the distance to, and the name of any receiving stream. If appropriate.

The proposed surface mining activity will affect upland areas, headwater streams, and wetlands associated with DMRM Surface Coal Mine Permit # D-2387-2. Drainage flows via unnamed tributaries to Stillwater Creek, eventually emptying into the Tuscarawas River watershed.

10. To address the requirements of the Antidegradation Rule, your application must include a report evaluating the:

- Preferred Design (your project) and Mitigative Techniques
- Minimal Degradation Alternative(s) (scaled-down version(s) of your project) and Mitigative Techniques
- Non-Degradation Alternative(s) (project resulting in avoidance of all waters of the state)

At a minimum, item a) below must be completed for the Preferred Design, the Minimal Degradation Alternative(s), and the Non-Degradation Alternative(s), followed by completion of item b) for each alternative, and so on, until all items have been discussed for each alternative (see Primer for specific instructions). (Application and review requirements appear at OAC 3745-1-05(B)(2), OAC 3745-1-05(C)(6), OAC 3745-1-05(C)(1) and OAC 3745-1-54).

- 10a) Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water. (OAC 3745-1-05(B)(2)(b))
- 10b) Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation. (OAC 3745-1-05(C)(6)(a, b) and OAC 3745-1-54)

the solid fuel source being recovered so that re-affecting the land in the future through coal mining can be minimized;

The statute requires that the applicant maximize mined resources on a site so there is no need to return at a later date and re mine a reclaimed site. By removing as much coal as is technologically and economically feasible, this standard is met. As stated below, the Non Degradation alternative will impact no waters thereby limiting the area of coal recovery. The statutory requirement cannot be met under the Minimal Alternative either, as it removes approximately 30.5 acres from the permit and reduces the coal removal area by about 11.9 acres, which is contrary to the statutory requirement to maximize recovery of the coal resource. The Preferred Alternative is the only alternative that meets the statutory requirement.

Some of the Jurisdictional Streams and Jurisdictional Wetlands have been avoided or if impact is unavoidable, the mining plan has been designed to minimize adverse environmental impact. For example, Wetlands B, C, D, G, I and Wetland Fringe 2 were originally located within the preliminarily proposed area. By revising this boundary to a higher elevation, these “waters” have been removed, and therefor protected by avoidance. This obviously avoids any direct mining impacts to these features.

CUMULATIVE IMPACT ASSESSMENT

Introduction

Oxford Mining Company, LLC proposes to employ surface mining methods to recover the #9 Meigs Creek and #11 Waynesburg coal seams at D-2387-2. This requires the removing soil and rock overburden above the coal seam, extracting the coal, backfilling, grading, resoiling and revegetating disturbed areas and mitigating unavoidable impacts to waters of the United States. In developing the mining plan consideration was also given to avoiding or minimizing impacts to cultural and natural resources. As such the area of impact will be limited to only those areas for which it is economically feasible to conduct surface coal mining and reclamation operations.

PREFERRED ALTERNATIVE

The Preferred Alternative maximizes coal recovery while only affecting those waters on which impact cannot be practicably avoided or minimized. The area of coal recovery is approximately 133.0 acres yielding an estimated 639,000 tons of coal.

Mining under this alternative will begin in the northeastern portion of the permitted area and continue in a southwesterly direction until the extent of the #11 coal seam has been removed. Then, mining of the #9 coal seam can commence. Access to the mining area will be made from Township Road 260 (Wilson Road) and from existing permit D-2387.

Jurisdictional waters proposed for *impact* under this alternative are:

Stream ID	Flow Regime	Impacted Length (ft)	Proposed Impact
ST-2	intermittent	1,300	MT, ST, PC
ST-5	ephemeral	46	RG
	intermittent	264	ST
ST-40	ephemeral	316	MT, RG, ST

Wetland ID	Designation	Impacted Acreage	Proposed Impact
WTL-E	PEM	0.11	MT, RG
WTL-J	PEM	0.16	MT, RG

Refer to Table 2 for a detailed list of impacts and avoidances.

MINIMAL DEGRADATION ALTERNATIVE

The mining plan under the Minimal Alternative is the same as the Preferred Alternative except that it removes approximately 30.5 ACRES FROM THE SOUTH AND EAST PORTIONS OF the permit area, resulting in approximately 121.1 coal acres and roughly 581,000 tons. Impacts

to Jurisdictional waters under this alternative is the same as the Preferred Alternative EXCEPT THAT IT REMOVES IMPACTS THE INTERMITTENT PORTION OF STREAM 5.

Eliminating this area significantly compromises Oxford's ability to advance its mining operation further to the north.

NON-DEGRADATION ALTERNATIVE

The Non-Degradation Alternative requires total avoidance of Jurisdictional Streams and Jurisdictional Wetlands; as a result, resource recovery is limited and the economic feasibility is marginal at best. Operating under the Non-Degradation Alternative results in only 38.3 coal acres yielding an estimated 184,000 tons. This alternative fails to meet the statutory requirements of Ohio Revised Code, Chapter 1513 Coal Surface Mining, §1513.16.

As with the Preferred and Minimal Alternatives, mining under this alternative will begin in the northeastern portion of the permitted are and advance in a southwesterly direction. Mining activities will terminate north of WTL-F, along the ridge top. Continued mining in a southern or eastern direction is not practical with this alternative due to the "waters" that are located in this general area. Three temporary sediment ponds will be constructed, to collect mine drainage, along the permit boundary to the northwest. Other drainage controls would be constructed when and where needed to satisfy SMCRA requirements, but in all instances, none would affect "waters".

PREFERRED

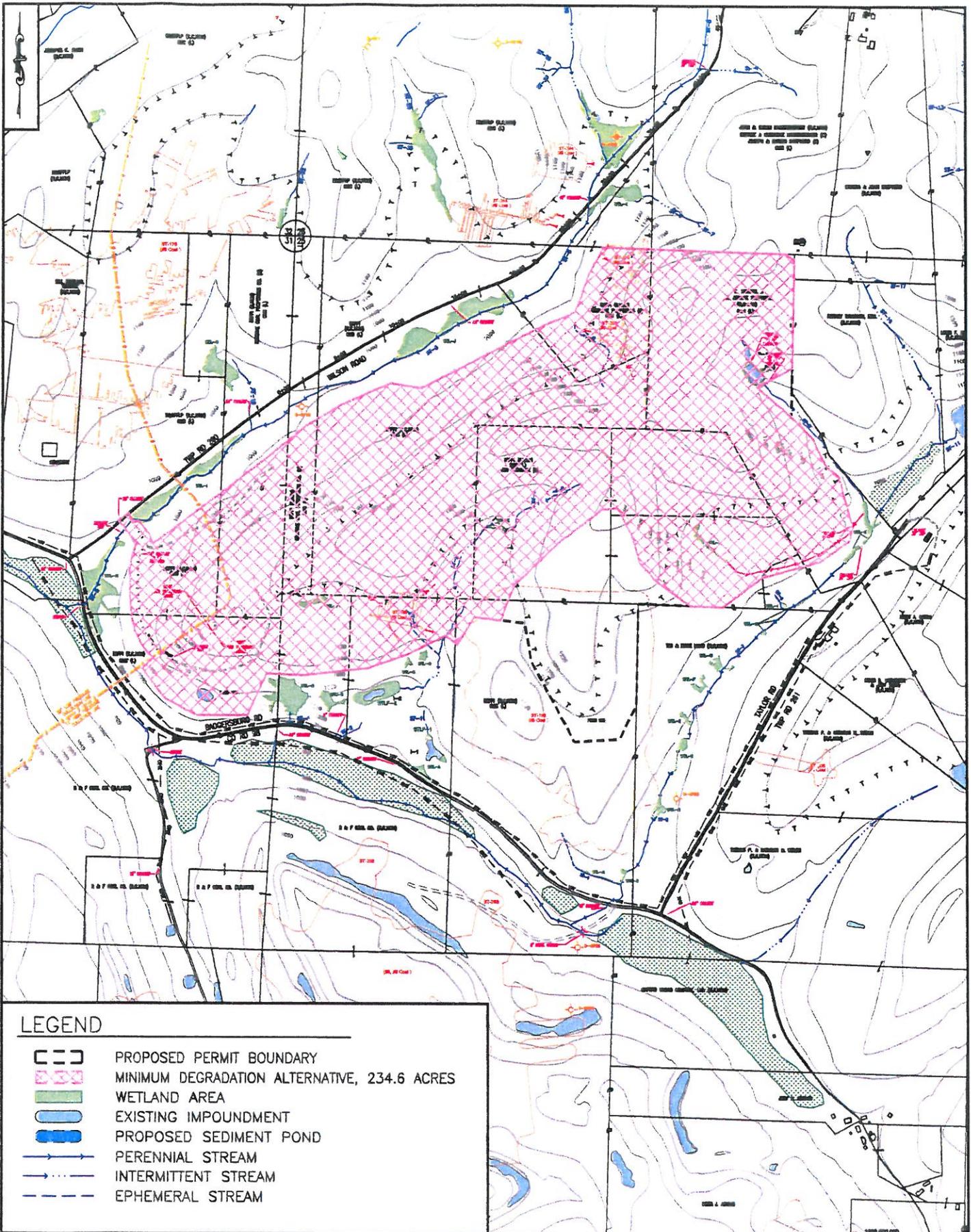
Item	Est. Const. Cost (\$)	Annual O & M (\$)	Cost to Remove
Sediment Ponds			
101	\$10,000	\$1,200	\$20,000
102	\$10,000	\$1,200	\$20,000
103	\$10,000	\$1,200	\$20,000
104	\$10,000	\$1,200	\$20,000
105	\$15,000	\$1,200	\$20,000
106	\$10,000	\$1,200	\$20,000
107	\$10,000	\$1,200	\$20,000
108	\$20,000	\$1,200	\$20,000
109	\$10,000	\$1,200	\$20,000
Diversions	\$50,000	\$5,000	\$25,000
Temp. Erosion Control	\$50,000	\$20,000	\$25,000
Stream Reconstruction			
2	\$52,000	\$3,500	n/a
4	\$2,500	\$1,000	n/a
5	\$10,600	\$1,500	n/a
Wetland Mitigation	\$17,600	\$5,000	n/a
Total	\$287,700	\$46,800	\$230,000

MINIMAL

Item	Est. Const. Cost (\$)	Annual O & M (\$)	Cost to Remove
Sediment Ponds			
101	\$10,000	\$1,200	\$20,000
102	\$10,000	\$1,200	\$20,000
103	\$10,000	\$1,200	\$20,000
104	\$10,000	\$1,200	\$20,000
105	\$15,000	\$1,200	\$20,000
106	\$10,000	\$1,200	\$20,000
107	\$10,000	\$1,200	\$20,000
108	\$20,000	\$1,200	\$20,000
109	n/a	n/a	n/a
Diversions	\$40,000	\$3,500	\$17,500
Temp. Erosion Control	\$40,000	\$15,000	\$20,000
Stream Reconstruction			
2	\$52,000	\$3,500	n/a
4	\$2,500	\$1,000	n/a
5	n/a	n/a	n/a
Wetland Mitigation	\$17,600	\$5,000	n/a
Total	\$247,100	\$37,600	\$197,500

NON-DEGRADATION

Item	Est. Const. Cost (\$)	Annual O & M (\$)	Cost to Remove
Sediment Ponds			
101	n/a	n/a	n/a
102	n/a	n/a	n/a
103	n/a	n/a	n/a
104	n/a	n/a	n/a
105	\$15,000	\$1,200	\$20,000
106	\$10,000	\$1,200	\$20,000
107	\$10,000	\$1,200	\$20,000
108	n/a	n/a	n/a
109	n/a	n/a	n/a
Diversions	\$15,000	\$1,500	\$7,500
Temp. Erosion Control	\$15,000	\$5,000	\$10,000
Stream Reconstruction			
2	n/a	n/a	n/a
4	n/a	n/a	n/a
5	n/a	n/a	n/a
Wetland Mitigation	n/a	n/a	n/a
Total	\$65,000	\$10,100	\$77,500



LEGEND

-  PROPOSED PERMIT BOUNDARY
-  MINIMUM DEGRADATION ALTERNATIVE, 234.6 ACRES
-  WETLAND AREA
-  EXISTING IMPOUNDMENT
-  PROPOSED SEDIMENT POND
-  PERENNIAL STREAM
-  INTERMITTENT STREAM
-  EPHEMERAL STREAM

Figure 3: MINIMAL ALTERNATIVE MAP
 OXFORD MINING COMPANY, LLC
 BELMONT COUNTY, OHIO
 06/04/14

SCALE: 1" = 1000'



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OEPA Stream Impact/Avoidance Summary Table

Applicant: OXFORD COAL COMPANY, LLC
 Date: 6/4/2014

Project Name: D-2387-2 MINE SITE

Corps #: 2013-435-UT, 2013-943-UT

Stream Id/Name	Total stream length on-site	Preferred Impacts		Minimal Impacts			
		Stream Length		Stream Length			
		Impacted	Avoided	Impacted	Avoided		
		Describe proposed types of impacts		Describe proposed types of impacts			
ST-2	1,850	1,300	550	1,300	550	mined thru, sediment transport, temp. pond const.	mined thru, sediment transport, temp. pond const.
ST-5 eph.	46	46	0	46	0	rec. grading	rec. grading
ST-5 int.	264	264	0	0	0	sediment transport	avoided
ST-40	316	316	0	316	0	mined thru, rec. grading, sed. trans.	mined thru, rec. grading, sed. trans.
Total	2,476	1,926	550	1,346	0		

Table 2 OEPA Stream Impact