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**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Rockies Express Pipeline, LLC

: Docket No. CP07-208-000

**COMMENTS
SUBMITTED ON BEHALF OF
THE OHIO POWER SITING BOARD**

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TABLE OF CONTENTS

	Page
Executive Summary	3
Chapter 1 - Introduction	4
Chapter 2 – Description of Proposed Action	5
Chapter 3 – Alternatives.....	10
Big Darby Creek and Deer Creek State Park.....	11
Little Miami River.....	12
Chapter 4 – Environmental Analysis	14
4.1 Geology	14
4.2 Soils	15
4.3 Water Resources.....	16
4.4 Vegetation	22
4.5 Wildlife	23
4.6 Fisheries	24
4.7 Threatened and Endangered Species.....	26
4.8 Land Use and Visual Resources.....	32
Agricultural Resources.....	32
Pipeline Depth.....	33
AIMA Inspection and Enforcement.....	34
Parks and Recreational Areas	34
Boating and Navigation	36
Contact Information	37
Aviation.....	38
4.9 Socioeconomics.....	39

TABLE OF CONTENTS (cont'd)

	Page
4.10 Cultural Resources	39
4.11 Air Quality and Noise	44
4.12 Reliability and Safety	45
4.13 Cumulative Impacts	45
Conclusion.....	48
Proof of Service.....	49

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The Federal Energy Regulatory Commission (FERC) issued a notice on November 23, 2007 inviting comment on the draft Environmental Impact Statement (EIS) prepared by its Staff to analyze the environmental and other impacts to Ohio's 13 affected counties of the proposed Rockies Express East Pipeline Project (REX-East). These comments are submitted by the Ohio Power Siting Board (Board), which has regulatory oversight of construction and initial operation of major utility facilities in Ohio. Board members include the following: Chairman of the Public Utilities Commission of Ohio (who also chairs the Board); Director of Ohio Environmental Protection Agency; Director of Health; Director of Development; Director of Natural Resources; Director of Agriculture; and a public representative appointed by the Governor. These comments, that identify both areas of agreement and of concern regarding the information presented in the draft EIS, are the result of collaboration by Board member agencies and other state agencies. General inquiries regarding these comments should be directed to:

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The Board commends the FERC staff in their preparation of a thorough, well-written and informative draft EIS. This was certainly not an easy task in a case of this magnitude. The Board's comments below should in no way be construed as detracting from the professionalism and capability of the FERC staff in preparing the draft EIS.

The investigation conducted by the FERC staff has resulted in numerous recommended conditions for this project, the majority of which are supported by the Board. In the interest of efficiency, the Board will not comment specifically on each and every recommendation contained within the draft EIS. Failure of the Board to comment on a specific recommendation should be interpreted as an indication that the Board supports, or does not oppose, the specific recommendation.

The Board appreciates this opportunity to submit comments. The Board encourages the FERC to give studied consideration to these comments in the preparation of its final EIS and order in this case.

The following comments are organized according to the chapters that they address in the draft EIS.

Executive Summary

On page ES-3, in the fourth full paragraph, it is stated that "No long-term surface water impacts are anticipated as a result of constructing and operating the Project." Experience in Ohio has shown that this statement is not necessarily accurate, especially when headwaters and other smaller streams are involved. Destruction of existing aquatic habitat and associated riparian areas, along with sedimentation, can cause long-lasting, adverse impacts to these small streams, some of which may be significant enough to prevent attainment of water quality standards. Therefore, the Board recommends that this statement be revised to acknowledge both the potential for long-term water quality impacts to smaller surface water bodies, and to require additional impact minimization and/or restoration measures where possible.

On page ES-4, the second paragraph accurately notes that long-term or permanent impacts to forested wetlands are likely to occur as a result of project clearing activities. However, unlike the proposals for limiting impacts to larger, high quality streams, there is no mention made of using HDD (or other subsurface methods) for installing the pipeline under forested wetlands to help prevent the long-term impacts noted by FERC. The Board strongly urges the use of HDD technology as a way to minimize the anticipated impacts to forested wetlands, and the extent to which REX-East intends to use it should be noted here in this section.

Chapter 1 - Introduction

On page 1-3 of the draft EIS, FERC staff acknowledges that there has been significant growth in natural gas deliveries by Midwest LDC's, and that this growth has led to the need for additional natural gas supplies in the region. This situation certainly holds true for Ohio. With a strong industrial base, and over 8,000 MW of gas-fired electric generation (and more than 1,000 MW additional expected in the near future), the need for additional natural gas supplies in Ohio is significant. For this reason, it is imperative that the interconnections planned for Ohio and delineated in the draft EIS be maintained in the final EIS and required in the final order issued by the FERC.

On page 1-8, the likely need for additional facilities, not under FERC jurisdiction, is discussed. As previously mentioned, the Board has regulatory oversight of construction and initial operation of major utility facilities in Ohio. The final EIS and the final order issued by the FERC should direct the applicant to make all necessary filings and obtain all approvals from the Board for facilities subject to the Board's jurisdiction under Ohio law.

Table 1.5-1 lists various state and local permits that the applicant must obtain prior to construction of the pipeline. The Board requests that the FERC indicate in its final order that nothing in its order is intended to override the applicant's obligation to file for and obtain these permits.

Chapter 2 – Description of Proposed Action

Table 2.1-1 lists all laterals and interconnects planned for REX-East. This includes 6 laterals and 12 interconnections to be constructed in Ohio. As mentioned previously, because of the need for additional gas supply for industrial and electric generation in Ohio mentioned previously, it is imperative that the interconnections planned for Ohio and delineated in the draft EIS are confirmed and required in the final EIS and the final order to be issued by the FERC.

Page 2-3 mentions two compressor stations that would be located in Ohio, one in Butler County and one in Muskingum County. The Board recognizes the need for compressor stations on a pipeline of this length and believes that the locations as described in the draft EIS are sited appropriately. However, it is the Board's understanding that the proposed location for the Hamilton compressor station has very recently been revised. The Board will reserve comment on this revision until such time as it is able to review the new location.

In section 2.2, FERC staff discusses the land requirements of the proposed facility, and recommends several ways in which the impacts associated with these land requirements can be reduced or minimized. FERC staff's recommendations to overlap rights-of-way for construction purposes and eliminate additional temporary right-of-way for temporary topsoil storage will serve to reduce temporary and longer term impacts associated with construction of the pipeline. The Board also endorses the FERC staff's recommendation to center the pipeline in areas where REX-East has otherwise proposed

to place the pipeline within 10 feet from the edge of the right-of-way. This will serve to reduce ongoing impacts to future development of land juxtaposed to the right-of-way.

While suggested elsewhere in the document, the Board believes that it should be explicitly stated, in this section, that potential environmental impacts can be further reduced by requiring REX-East to remain flexible in adjusting right-of-way widths and temporary work spaces wherever possible to avoid small sections of sensitive resources that may extend into the proposed construction area. For example, it is not uncommon for the edges of stream bends or woodlands to fall within the straight-line boundaries of a proposed utility corridor, even though the majority of the resource is avoided by the project alignment. When this happens, it is often a relatively simple matter to make minor shifts in the construction area boundaries or to narrow the boundaries down for a short distance to entirely avoid impacts to the encroaching resource. Flexibility within the defined work areas is important to avoid small areas of overlap with sensitive resources, in order to help minimize adverse impacts on these resources, and should be made a required goal of the overall project.

In a project of this magnitude, there can be considerable environmental impact associated with providing *access* to the right-of-way for equipment and pipe materials. Impacts associated with access can often be as significant as impacts associated with the route itself. This issue is addressed in the draft EIS on page 2-6, where FERC staff recommends that the need for each access road be justified, and the restoration of such roads be described by REX-East prior to the end of the draft EIS comment period. However, the recommendation does not explicitly require REX-East to consult with state agencies

in making access road determinations. This consultation could readily be achieved through coordination with the Board contacts listed on page 2 of these comments. The Board believes that state agency input would be valuable to REX-East in its attempts to minimize adverse impacts associated with access roads, and requests that this consultation be included as a requirement in the final EIS and in any final order issued by FERC in this case.

Pipe storage and contractor yards are described on page 2-7 of the draft EIS. The location description, by township, range and section numbers, does not pinpoint the precise location of the proposed temporary facilities. Based on a review of the facility locations as presented on the REX-East agency website, it appears that there may be significant environmental impacts associated with the use of some of these facilities. One such impact, potential tree clearing, is recognized in the draft EIS, along with a recommendation that REX avoid cutting trees in order to minimize environmental impacts (see section 4.4.1, page 4-58). The Board concurs with this recommendation, but believes that the recommendation should further indicate that REX must utilize standard best management practices in order to minimize all adverse environmental impacts (such as stormwater control, fugitive dust control, etc.) associated with the use of these pipe staging facilities.

In section 2.3 of the draft EIS, FERC staff discusses the various construction procedures that REX-East intends to follow, and provides comments on aspects of standard construction practices that REX-East intends to modify. The Board finds the following recommendations of this section of the draft EIS to be particularly beneficial:

- Limitation of the construction right-of-way to 75 feet in wetland areas;
- Restriction against stringing and constructing the pipe over waterbodies prior to installation;
- Requirement for site specific justification of each additional workspace within 50 feet of a waterbody;
- Requirement to file a material disposal plan for approval;
- Requirement that REX-East develop a hydrostatic testing plan that addresses the potential of fish entrainment and requires documentation of consultation with appropriate state agencies.

The Board believes that retention of the above requirements in the final EIS will help assure that impacts to wetlands, waterbodies and sensitive areas will be minimized. However, the Board has additional concerns on waterbody crossings in general. It has been our longstanding experience in Ohio that open-cut stream crossings, unless restricted to no-flow periods, create more adverse aquatic impacts than do dry-ditch crossings methods. Therefore, we very strongly recommend limiting the proposed project's use of open-cut stream crossings, at least in Ohio, to no-flow periods only.

Further, it is not clear from reading the draft EIS how and where Rockies Express plans to avoid crossing streams, and larger wetlands, with construction equipment (such as by accessing the crossing sites from both sides, rather than crossing with equipment), and where it will be necessary to traverse these sensitive locations with construction equipment. Besides the locations of these unavoidable equipment crossings, it will be important to know and evaluate the type of equipment crossing method to be used (e.g.,

temporary culverts, timber mats, etc.), and the duration of the equipment crossing (*i.e.*, one-pass crossing vs. repeated access across the waterbody). The types of crossings, the amount of disturbance associated with them, and their duration can significantly impact the water resource, so we recommend that these details be identified, evaluated, and approved prior to project certification, if possible, and definitely prior to initiation of construction.

In Section 2.5, FERC staff makes several recommendations regarding the third party environmental monitoring program that will be funded by REX-East. The Board believes that the recommendations should be retained in the final EIS. The Board further observes that the vast majority of the impact of construction of the facility will be local in nature. Thus, local governmental entities and state agencies will be in a position to learn about and observe local construction impacts. The Board, therefore, requests that the recommendations in the final EIS include specific instructions directing open, ongoing communication between third party environmental inspectors and state and local agencies.

In Section 2.6, in the last paragraph on page 2-25, it is noted that generally a 50-foot width of cleared vegetation will be maintained throughout the proposed pipeline right-of-way, with special reduced-clearing right-of-way maintenance for active agricultural areas, Conservation Reserve Program (CRP) areas, and wetlands. The Board believe that locations where horizontal directional drill (HDD) technology will be employed should be discussed in this section as an additional area in which special right-of-way maintenance (specifically, no clearing) must be followed. Because a primary rea-

son for employing HDD technology is to avoid impacting the vegetation along high quality streams and wetlands, subsequent clearing of trees and brush from these areas would essentially defeat the purpose of using HDD in the first place. Therefore, long-term protection of these stream and wetland crossing sites through the maintenance of undisturbed wooded buffer areas (including on-site identification markers and appropriately marked pipeline maintenance maps) is critical to avoiding significant future impacts on high quality water resources from the REX-East project.

Chapter 3 – Alternatives

In section 3.4, FERC staff discusses route alternatives for crossing the Little Miami River, Deer Creek Lake State Park, and Big Darby Creek in Ohio. Based on information from the Ohio Department of Natural Resources (ODNR), alternative pipeline locations that do not cross these state resources are recommended. These recommended alternatives are discussed in greater detail below. Should the FERC choose not to accept the recommended alternative routes as primary routes, they should be maintained in the final EIS, as alternative crossing locations to be used, should the HDD at the planned crossing locations be unsuccessful. The Board further notes that the recommendations not to conduct any construction activities in areas that would be bypassed, should the alternative routes be used, is essential for assuring that adverse environmental impacts are minimized.

Big Darby Creek and Deer Creek State Park

In consultation with ODNR-Division of Natural Areas and Preserves (DNAP), the Board requests that the current Big Darby Creek Alternative Route that *does not cross Big Darby Creek* or Deer Creek State Park be made the preferred route (*see Attachment A, Big Darby Creek Alternate*). The Board notes that it is completely unnecessary to subject Big Darby Creek to the risk of HDD failure. A reasonable and viable alternative that completely removes the risk of HDD failure or frac-out from Big Darby Creek and avoids this sensitive aquatic ecosystem altogether has been proposed as the current Big Darby Creek alternative route. This route is assessed as the “shortest route alternative that would eliminate the need to cross the Creek.” ODNR-DNAP concurs with this assessment.

Further, this HDD project represents the second crossing of Darby Creek within a short period of time and relative proximity (Pickaway County). This presents unnecessary additional risks to the Darby ecosystem that are easily avoidable by implementing the current Big Darby Creek Alternative Route that does not impact Darby Creek at all. Big Darby Creek is a State and National Scenic River with “outstandingly remarkable values for wildlife (fish and mussels).” Crossings of any kind should be avoided, especially when viable and reasonable alternatives exist. Individual species of mussels as well as diverse mussel beds are at risk. We note that the following threatened species of aquatic organisms have been recorded in proximity to the proposed Darby crossing:

Scientific Name	Common Name	State Status	Federal Status
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<i>Epioblasma triquetra</i>	Snuffbox	Endangered	
<i>Lampsilis fasciola</i>	Wavy-rayed Lampmussel		
<i>Epioblasma torulosa rangiana</i>	Northern Riffle Shell	Endangered	Endangered
<i>Truncilla donaciformis</i>	Fawnsfoot	Threatened	
<i>Moxostoma carinatum</i>	River Redhorse	Species of Concern	
<i>Etheostoma Tippecanoe</i>	Tippecanoe Darter	Threatened	
<i>Etheostoma camurum</i>	Bluebreast Darter	Threatened	
<i>Megalonaias nervosa</i>	Washboard	Endangered	

Little Miami River

In consultation with ODNR-DNAP, the Board requests that an alternative that avoids Caesar's Creek State Park and crosses the Little Miami below the reservoir be considered as a preferred route (see Attachment B, Little Miami Alternate Route). This alternative is very similar in routing to the alternative discussed in the draft EIS as the Mowrey Alternative (pages 3-21 through 3-23). This alternative route that crosses the

Little Miami State and National Scenic River south of Caesar's Creek State Park would avoid any impacts to the state park. It would also span a significantly shorter distance than the Little Miami River Alternative Route discussed on pages 3-18 through 3-20 of the draft EIS.¹

The Big Darby Creek and Little Miami River have both been recognized as outstanding aquatic ecosystems with exceptional warm water habitat aquatic use designations. They are example of the most ecologically productive and sensitive freshwater ecosystems in the state of Ohio. Although HDD boring methods are considered less harmful to stream resources when implemented without failure, in the event of failure or frac-out, the receiving streams are subject to serious environmental distress. Fine sediments can have significantly detrimental effects on aquatic organisms, especially threatened and endangered freshwater mussels. Any HDD crossing presents an elevated risk of water quality and habitat degradation as well as a high potential for negative effects on sensitive aquatic populations. Whenever possible, these crossings should be avoided. In the case of Big Darby Creek, a reasonable alternative that avoids the need to cross altogether exists. This is an exceptional opportunity to minimize the potential for degradation of one of Ohio's most significant biological systems.

¹ As discussed later in comments on section 4.10, Cultural Resources, the use of this and other alternate routes would first require a significant amount of additional evaluation, in order to determine the avoidance and mitigation necessary to minimize impacts associated with the alternate routes.

Chapter 4 – Environmental Analysis

4.1 Geology

The draft EIS indicates that over 100 active oil and gas wells are within 500 feet of the pipeline route, 80% of which are located in Ohio. FERC staff recommends the creation of a site specific protection plan for oil and gas wells within the construction work area, and identifies specific details that need to be included in such plans. The Board agrees that this further step will help avoid potential adverse impacts to such wells, and requests that the requirement remain in the final EIS and be incorporated into any final order issued by FERC.

The Rockies Express pipeline is proposed to cross areas exhibiting karst topography and abandoned underground mines. This includes extensive areas of abandoned underground mines in eastern Ohio. Such areas are potentially subject to subsidence, and therefore present a significant threat to the integrity and safe operation of the pipeline. FERC staff makes several recommendations related to minimizing the adverse impacts that could potentially result from such subsidence. The Board agrees that these additional requirements are necessary to help assure that the pipeline can be installed and operated in a safe manner, and requests that they remain in the final EIS and be incorporated into any final order issued by FERC.

4.2 Soils

As pointed out in the draft EIS, there is the potential for the REX-East pipeline to have significant impacts on agricultural soils. These impacts could result from soil compaction during construction and from installation of the pipeline at a depth that would interfere with field drainage systems. FERC staff recommends an Agricultural Wet Weather Contingency Plan as protection against soil compaction, and a minimum pipe burial depth of 5 feet to minimize interference with field drainage systems in “prime farmland.” The draft EIS further describes “prime farmland” in such a way that it appears to essentially apply to all existing agricultural fields. The Board believes that the two conditions described above are essential for assuring that impacts to agricultural soils are minimized, and requests that they remain in the final EIS and be incorporated into any final order issued by FERC.

The Agricultural Impact Mitigation Plan proposed by REX-East mentions that REX-East *may* conduct full right-of-way topsoiling. The Board believes that this action should not be discretionary. Full right-of-way topsoiling should be required in all agricultural right-of-way areas that would experience equipment traffic or other significant disturbance. This requirement will help minimize adverse impacts of compaction and mixing of horizons in agricultural soils.²

² Mitigation of agricultural impacts is further discussed in comments on section 4.8, Land Use and Visual Resources.

On page 4-18 of the draft EIS, the information presented in the second paragraph is not consistent with the prior discussion of prime farmland soils. If the information is accurate as written, then the Board would disagree that such a small acreage of soil would be considered prime farmland soil. This paragraph should be clarified in the final EIS.

4.3 Water Resources

The draft EIS properly considers potential impacts that the pipeline could have on groundwater resources, and makes recommendations that would help to minimize or mitigate adverse impacts. The Board, in general, supports these recommendations. The Board further notes the following general recommendations regarding the crossing of waterbodies in Ohio:

- When at all possible, the pipeline route should avoid traversing a State and National Scenic River by trench and fill or by HDD methods. Any pipe crossing is an elevated pollution risk.
- If a crossing cannot be avoided, HDD is the preferred crossing method. The drill path should be of sufficient depth to minimize the risk of streambed upheaval and frac-out. Every effort should be made to drill through solid bedrock at any feasible depth.
- Entry and exit bore pits should be located above the 100-year floodplain elevation and any associated mounding, diking, or filling should be located above the 100-year floodplain elevation.

- Primary (dike) and secondary (sediment fence or hay bales fortified by sediment fence) containment structures of sufficient capacity to result in a zero discharge of drilling fluids, sediments, and associated pollutants from the bore pits into the streams should be installed prior to any boring activity.
- A “Frac-out Contingency Plan” must be kept on site in order to ensure a rapid response in the event of a frac-out. In-stream containment structures (inflatable dams, etc.) should be included in the plan and be available on-site for rapid in-stream containment.
- Every effort should be made to minimize the removal of trees, shrubs, and other vegetation at the drill site. Upon project completion, any impacted areas should be returned to their original condition and any damaged or destroyed trees or shrubs should be replaced.
- A Unionid Mussel Habitat Survey should be conducted to the extent that has been required of previous HDD crossings in the area. This includes an inventory of existing mussel populations within at least 150 meters upstream and at least 450 meters downstream of the proposed HDD crossing. Additionally, representatives of ODNR Division of Natural Areas and Preserves, ODNR Division of Wildlife, National Parks Service, and U.S. Fish and Wildlife Service should be consulted to evaluate these findings and assess the need for mussel relocation. At minimum, there is precedent by which a utility company has funded mussel propagation at the Columbus Zoo and Aquarium Mussel Conservation Facility as a proactive

approach to preempt any potential impacts to the Darby mussel population associated with the proposed HDD project.

As shown on page 4-28 of the draft EIS, there are more impacted surface water bodies in Ohio than in any other state to be crossed by REX-East. Of the 1,462 surface waters to be crossed, 727 (or nearly 50%) are in Ohio. Potential impacts associated with these crossings include contamination of potable water supplies, drilling fluid releases during HDD crossings, riparian vegetation impacts, impacts to sensitive and scenic rivers, water withdrawal for hydrostatic testing, and wetland vegetation impacts. The draft EIS offers about a dozen recommendations that would help to minimize and mitigate impacts to surface water bodies. Many of these recommendations include requirements for REX-East to contact and/or consult with "applicable agencies." The Board believes that it is the FERC staff's intention that the term "applicable agencies" includes all appropriate state agencies. Based on this understanding, the Board supports these recommendations and requests that the recommendations be clarified to clearly include state agencies. The Board further requests that the recommendations remain in the final EIS and be adopted by any order issued by the FERC.

The first sentence of the last paragraph on page 4-30 states, "The greatest potential impact on surface waters would result from the temporary suspension of sediments during instream construction." While this is generally true, it is also important to note that, particularly for smaller (*e.g.*, headwater) streams, loss of riparian habitat can have just as great an adverse impact as sedimentation, especially if the riparian habitat in question consists of larger trees and shrubs that provide essential shading for water temperature

and evaporation control, as well as energy input (leaf litter, insects, etc.) and stream bank stability. The importance of avoiding or minimizing removal of this riparian habitat for protecting existing water quality values should be discussed in this section, along with a recommendation that REX-East include this consideration in its final construction plans.

The third paragraph from the bottom of page 4-31 contains the following statement: "Further, an inadvertent release of drilling fluids would have no long-term adverse environmental impacts on water quality." Despite HDD's many benefits in reducing impacts to aquatic resources, we disagree with this blanket statement about the lack of long term impacts of frac-outs on water quality. It has been our experience that drilling fluids released into streams often settle quickly to the bottom, where they can fill the interstitial spaces in streams that have rocky substrate and be very difficult to remove. This, in turn, can suffocate the aquatic organisms living in the substrate, along with seriously disrupting the aquatic food chain. For some streams, especially smaller ones and/or those with low flow regimes, this could produce long-term, significant adverse impacts, so the Board suggests revising the language in the draft EIS accordingly.

On pages 4-32 and 4-33, REX-East's plans for minimizing construction impacts on surface waters are listed in bullet form. The first bullet point refers to "limiting clearing of vegetation between extra work areas and the edge of the waterbody to preserve riparian vegetation"; this is an important point that can be further emphasized by requiring that the standard right-of-way and construction easement widths within a certain distance of all waterbody crossings (*e.g.*, within 50 feet), as shown on the construction drawings (engineering plans), be narrowed by 25 to 50 feet at all crossing sites. This will

help minimize riparian clearing and highlight the critical nature of these crossing locations.

The tenth bullet point refers to "limiting post-construction maintenance of vegetated buffer strips adjacent to streams"; as noted previously, long-term protection of riparian buffer areas (and forested wetlands) is critical to maintaining water quality. To that end, the Board suggests adding language to the bullet point requiring on-site markers for identifying "no-clearing" zones, along with appropriately marked pipeline maintenance maps.

The last paragraph in section 4.3.4 states that "Rockies Express would cross non-sensitive, dry intermittent waterbodies using conventional upland construction methods." The Board disagrees with this proposal, to the extent that it would permit wider construction easements, and thus greater riparian and stream bank disturbance, than would the more restrictive construction easement widths proposed for work in wetland areas. The Board supports the more restrictive easement widths and construction methods for all waterbody crossings.

The last paragraph in section 4.3.4 also states that "If intermittent waterbodies are flowing at the time of construction, Rockies Express states it would install the pipeline using the open-cut method in accordance with its Procedures." As noted previously, the Board believes that open-cut stream crossings, unless restricted to no-flow periods, creates more adverse aquatic impacts than do dry crossings. Therefore, the Board continues to strongly recommend limiting the proposed project's use of open-cut stream crossings to no-flow periods only.

The first sentence at the top of page 4-36 states that "Rockies Express proposes to cross Paint Creek (OH) and Big Walnut Creek (IN) by the open-cut construction method." Again, the Board objects to the use of the open-cut stream crossing method, except during no-flow periods.

As noted previously, the Board is very concerned about the long-term adverse impacts of the proposed project on forested wetlands. Page 4-42 notes that the proposed project would affect 29.2 acres of forested wetlands, while pp. 4-45 through 4-46 mention that some, but not all, sensitive or significant wetlands will be crossed using HDD. Because we believe that use of HDD is an important tool in helping protect high quality wetlands from long-term construction impacts, and because no explanation was given for why only some of the identified sensitive wetlands would be crossed using HDD, we recommend that HDD be used for crossing all forested and other high quality wetlands.

Page 4-44 discusses the possibility of blasting for pipe installation in wetland areas with shallow bedrock. Blasting in such areas is problematic, because the presence of the intact shallow bedrock may be the primary reason for the existence of the wetland in question. If not already completed, we would recommend the evaluation of appropriate methods to seal any fractures in the bedrock following blasting, to help prevent possible draining of the wetlands.

The first bullet item on page 4-48 references ". . . additional temporary work-spaces, and contractor yards/pipe yards located within forested wetlands." Given the significant concerns that exist about long-term impacts to forested wetlands, we recommend

prohibiting any project-related use of such wetlands except for actual trenching and pipe-laying in wetlands where HDD is not possible or appropriate.

4.4 Vegetation

As discussed in the draft EIS, construction of the REX-East pipeline will impact over 14,000 acres of vegetated land, with 5,400 acres (approximately 38%) of that land in Ohio. Forest fragmentation associated with pipeline construction and operation is a significant concern in Ohio. The draft EIS recognizes this concern, and discusses ways in which the impact of forest fragmentation has been reduced (such as through co-location with existing pipelines in forested areas). FERC staff has further recommended several conditions that would help minimize adverse impacts on upland forests, such as the requirement for development of a forest mitigation plan in consultation with FWS, COE, and appropriate state agencies, and the requirement of prohibitions on clearing over HDD locations. The Board supports these recommended conditions and requests that they remain in the final EIS and be adopted by any order issued by the FERC. The Board further requests that consultation with state agencies in regards to minimizing impacts to forested areas be continued throughout implementation of the forest mitigation plan.

The last bulleted item at the bottom of page 4-56 recommends that "For all HDDs, Rockies Express not clear any trees between the workspace for the drill site and the workspace for the exit site. Minor brush clearing, less than 3-foot wide, using hand tools is allowed to facilities [sic, "facilitate"] the use of the HDD tracking system." However, the following sentence (top of page 4-57) states that "During operation, the use of the

REX-East Plan would allow for maintenance mowing along the permanent 50-foot-wide right-of-way every three years. . . ." This second statement appears to defeat the intent of preserving the trees during HDD work. Therefore, we recommend that the bullet point at the bottom of page 4-56 be applied to both construction and future maintenance/operation of the pipeline, and that it be amended to include on-site identification markers for "no-clearing" zones and appropriately marked pipeline maintenance maps.

The last paragraph on page 4-58 notes the importance of wooded riparian corridors and the impacts that may occur there following clearing and pipe installation work. However, no mention is made of HDD and how it could be used to avoid these riparian impacts in the first place. This should be clarified, either by recommending the use of HDD to cross these wooded riparian corridors, or by providing an explanation of why HDD is not appropriate at these locations. Although this section of the draft EIS discusses a specific Indiana program, the importance of maintaining wooded riparian corridors applies to Ohio as well.

4.5 Wildlife

The draft EIS appropriately discusses and characterizes general anticipated adverse impacts of the REX-East pipeline on wildlife in the project area. Further, the draft EIS discusses special concerns for migratory birds and sensitive wildlife areas. FERC staff has proposed several conditions which would help to minimize these adverse impacts. Required consultation with appropriate state and federal agencies prior to construction is an important aspect of successful implementation of these recommendations.

The Board supports the FERC staff's recommendations and requests that they remain in the final EIS and be adopted by any order issued by the FERC. The Board further requests that consultation with state agencies in regards to minimizing impacts to wildlife and sensitive wildlife areas be continued throughout construction and restoration of the pipeline.

Throughout this section, the importance of interior forest habitats to various bird species and other wildlife is frequently noted, along with the adverse impact that can occur when these forest habitats are fragmented, such as by pipeline construction. Routing the pipeline around these intact forest areas is one method to prevent fragmentation; co-location of the pipeline with other utilities in a single corridor is another way to help reduce fragmentation impacts. When neither of these approaches can be used, drilling under the forested areas (*e.g.*, HDD) is another method that should be considered to prevent forest fragmentation, and we recommend that it be specifically included in this section as a possible method to reduce or avoid significant impacts to important forest habitats.

4.6 Fisheries

Potential adverse impacts on fishery resources is discussed in the draft EIS. Some impacts to fisheries resources will be reduced because of the seasonal construction restrictions included in the REX-East construction procedures. Specific seasonal restrictions requested by Indiana and Illinois are discussed in the draft EIS, and the draft EIS recognizes that adherence to their proposed timing restrictions would reduce impacts to

fisheries. The Board notes that no in-water work should occur in Ohio from April 15 to June 30 in the streams planned to be crossed by the currently proposed REX-East pipeline route. Should future route revisions make it necessary to cross streams currently not referenced, or cross referenced streams in different locations, it is possible that more exclusive date restrictions could apply. The Board requests that the final EIS recognize these restrictions requested by Ohio, and that they be adopted by any order issued by the FERC.

The first sentence of the fifth paragraph on page 4-76 states that "Rockies Express proposes to use the open-cut method for most of the waterbodies that would be crossed by the Project." The remainder of the paragraph goes on to describe the various adverse impacts that can result from this crossing technique. As noted previously, the Board opposes the use of the open-cut waterbody crossing method, except during periods of no flow. Therefore, we recommend that the bullet item on page 4-81 be changed to require that Rockies Express use a dry-ditch technique to cross any waterbody, except those with no flow, regardless of stream size or special designation.

The draft EIS specifically recognizes that the REX-East pipeline will be crossing many streams in Ohio that are designated fisheries of special concern. FERC staff has proposed that dry crossing techniques be used for such streams, and that if wet crossing would be used that approval from appropriate state agencies must be obtained and documented. The Board supports the FERC staff's recommendation and requests that it remain in the final EIS and be adopted by any order issued by the FERC. However, as noted above, the Board believes that this restriction should apply to all streams, not just

those designated as fisheries of special concern. The Board further requests that consultation with state agencies in regards to minimizing impacts to fisheries of special concern be continued throughout construction and restoration of the pipeline.

4.7 Threatened and Endangered Species

The draft EIS identifies 10 federally listed species that could potentially be affected by the construction of the REX-East pipeline. Based upon the REX-East construction plans and FERC staff recommended conditions, the draft EIS concludes that one federally listed species (*Myotis sodalis*, or Indiana bat) is likely to be adversely affected, and the potential impact on one other federally listed species (*Trifolium stoloniferum*, or running buffalo clover) could not yet be determined. The FERC staff recommendations regarding these species are generally reasonable and should remain in the final EIS and be adopted by any order issued by the FERC. However, the Board notes that we have previously recommended that the use of HDD technology should be considered for forested areas and forested wetland crossings as an effective way to minimize adverse impacts, which would include impacts to forested areas known to support Indiana bats. Therefore, the Board recommends that the first bullet point on page 4-90 should be revised to include the following statement: "For forested areas, Rockies Express should evaluate the use of, and implement wherever possible, HDD technology as a method to minimize crossing impacts in any forested areas known to support Indiana bats."

The draft EIS identifies 15 state-listed species that could potentially be affected by the construction of the REX-East pipeline. Of these, 12 species exist in Ohio. In general,

the conditions recommended by FERC staff in the draft EIS will be helpful in minimizing potential adverse impact on these species, and the Board supports the recommendations and requests that they remain in the final EIS and be adopted by any order issued by the FERC. However, the Board has several additional observations below that it believes should be included in the final EIS and recommended conditions of the FERC certificate.

The second paragraph of the discussion of the eastern massasauga (*Sistrurus catenatus catenatus*, page 4-93) notes that landscape fragmentation and open landscape that will result from project construction might deter massasaugas from using the area, or make them more vulnerable to predation. To help minimize these impacts, temporary cover, such as brush piles or anchored metal sheets, should be provided in areas of potential massasauga habitat after construction, in order to increase the likelihood of their returning to the disturbed area and avoiding predation.

The ODNR Division of Wildlife (DOW) has reviewed the “Report of Assessment of Potential Habitat for the Eastern Massasauga and Eastern Hellbender in Ohio” prepared by Gregory Lipps, LLC and dated November 2007. Determinations of potentially suitable habitat for the eastern massasauga could not be made at two sites due to access restrictions. Therefore the DOW recommends these two sites be visited by Gregory Lipps when access is granted. If Mr. Lipps determines that these sites are not suitable eastern massasauga habitat, the DOW will make the determination that the project is not likely to impact the eastern massasauga. Therefore, as indicated in the draft EIS, the applicant is continuing its consultation with the ODNR-DOW regarding this species.

The Board further notes that the fourth paragraph in the eastern massasauga section references possible follow-up massasauga habitat survey work in the spring and summer of 2008. Because this is also the time when Rockies Express hopes to begin pipeline construction, the bullet point at the end of the section should be amended to specifically prohibit any pipeline work in any areas of potential massasauga habitat until all required survey work has been completed.

The bullet point at the end of eastern hellbender section (page 4-105) recommends the possible use of dry crossing methods for waterbodies that contain eastern hellbenders, due to the animal's vulnerability to increased turbidity. Although the Board concurs with this recommendation, it reemphasizes its preference that all waterbody crossings, except those with no flow, be restricted to dry crossing methods, thereby avoiding the possibility of increased turbidity in hellbender habitat.

Regardless of what mussel, fish, and other aquatic species are present, to reduce impacts to aquatic species and their habitat, the DOW recommends no in-water work from April 15 to June 30 in streams designated by the Ohio EPA as Class III primary headwater streams, or in streams with a drainage area greater than 20 square miles that are designated as exceptional warmwater habitat, coldwater habitat, warmwater habit, or in streams where threatened or endangered species occur. If the applicant finds it necessary to perform in-water work during the restricted period, the DOW recommends the applicant submit a letter to the Division of Wildlife requesting a specific waiver. The DOW must consider waiver requests on a case-by-case basis.

Page 4-106 of the draft EIS indicates “Ohio FWS has stated that Rockies Express should avoid construction activities in waterbodies containing freshwater mussel beds between April 15 and June 15.” If “Ohio FWS” is referring to the Ohio Department of Natural Resources, Division of Wildlife, this statement is not correct. The DOW indicated that if there is a history of mussels being found in the area of a proposed stream crossing, we recommend the stream be avoided or horizontal directional drilling be used to avoid the potential taking of mussels. This applies to both common and listed mussel species. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area.

Because there is a history of mussels in the area of proposed stream crossings, the applicant conducted a mussel survey on 70 of the 87 waterbodies planned for surveys. After reviewing the mussel survey report, the DOW has the following comments:

- The consultant indicates “Of the 87 waterbodies planned for surveys, 17 were not surveyed due to lack of permission to access necessary land tracks.” The DOW recommends these stream crossings be surveyed for freshwater mussels once permission for access is granted. If access is not granted, the DOW recommends these crossings be omitted from the project design.
- Figure 65 of the mussel survey report shows the results of unionids collected at WBD-OH-596-CC, Wills Creek, Guernsey County, Ohio on June 25, 2007. This figure indicates that weathered dead unionids and no unionids were found at the sampled transects. However, the narrative indicates live mussels were found at

this site and Table 2 indicates that at least one live fat mucket (*Lampsilis siliquoidea*) was found at this site. The DOW recommends this be clarified.

- The report indicates three sites had live mussels present, two sites had, at best, fresh dead mussels, and four sites had, at best, weathered dead mussels. These nine sites contained 13 mussel species. The report indicates the live mussels found constituted four species and the fresh dead mussels constituted two species. However, the report does not indicate the number of individual mussels of each species found at each site. The DOW recommends that the report specify, at a minimum, the number of individuals of each species of live mussels found at each of the two sites where live mussels occurred. This is necessary for the DOW to determine whether we recommend these crossings be avoided, whether horizontal directional drilling is recommended, or if mussel relocation is necessary.

Due to the need for the items above to be clarified and reviewed, it is necessary for the applicant to continue its consultation with ODNR-DOW regarding common and listed freshwater mussels.

The osprey can be found in Butler, Fayette, Guernsey, and Pickaway Counties. Because riparian corridor, forest, or wetland habitat will be impacted by the proposed project, construction in these habitat types must not occur in these counties during the osprey's nesting period of May 1 to July 31. If this habitat is not located near the project area in these counties, the project is not likely to impact this species.

The trumpeter swan can be found in Muskingum County. Because wetland habitat will be impacted by the proposed project, construction in this habitat type must not occur

in this county during the trumpeter swan's nesting period of May 1 to August 1. If wetland habitat is not located near the project area in this county, the project is not likely to impact this species.

The northern harrier can be found in Muskingum, Greene, and Noble Counties. Because wetland habitat will be impacted by the proposed project, construction in this habitat type must not occur in these counties during the northern harrier's nesting period of May 15 to August 1. If wetland habitat is not located near the project area in these counties, the project is not likely to impact this species.

Prior to in-water blasting in Ohio, the applicant must obtain permission from the Chief of the Ohio Department of Natural Resources, Division of Wildlife.

There are records in the area of the pipeline for the eastern box turtle (*Terrapene carolina*), state species of concern, Sloan's crayfish (*Orconectes sloanii*), state threatened species, eastern sand darter (*Ammocrypta pellucida*), state species of concern, river redhorse (*Moxostoma carinatum*), state species of concern, least bittern (*Ixobrychus exilis*), state threatened species, spotted turtle (*Clemmys guttata*), state threatened species, Kirtland's snake (*Clonophis kirtlandii*), state threatened species, upland sandpiper (*Bartramia longicauda*), state threatened species, tongue-tied minnow (*Exoglossum laurae*), state threatened species, bluebreast darter (*Etheostoma caeruleum*), state threatened species, Tippecanoe darter (*Etheostoma tippecanoe*), state threatened species, false map turtle (*Graptemys pseudogeographica*), state species of concern, and the Virginia rail (*Rallus limicola*), state species of concern. Due to the status of these species, the dates of the records, and the type of work involved, the Ohio Department of Natural

Resources, Division of Wildlife (DOW) believes this project is not likely to impact these species.

The ODNR Division of Natural Areas and Preserves, Natural Heritage Database, contains records of rare species within the proposed project. A species listing and associated maps which display the locations of the records are included as Attachment C.

4.8 Land Use and Visual Resources

Agricultural Resources

In previous correspondence to the FERC, dated June 25, 2007, the Ohio Department of Natural Resources – Division of Soil and Water Conservation (ODNR-DSWC) identified several items of concern regarding the proposed Agricultural Impact Mitigation Agreement (AIMA) submitted by REX to FERC that were requested to be addressed.

After receiving comments from ODNR-DSWC and similar agencies and organizations in Indiana, Illinois, and Missouri, REX submitted a modified version of the AIMA to FERC. ODNR-DSWC reviewed this version of the AIMA that was submitted to FERC on September 27, 2007. While some changes were incorporated into the document, five of six areas highlighted in the ODNR-DSWC June 25 correspondence to FERC were not adequately addressed in the modified AIMA. In an effort to resolve these concerns, ODNR-DSWC met with REX representatives on October 25, 2007. Although several items were addressed as a result of this meeting, two very significant items remain unresolved. These items are summarized below.

Pipeline Depth

Depth of cover continues to be of significant concern for agricultural resources across our state. It is essential that a minimum cover depth of five feet, measured from the ground surface to the top of the buried pipeline, be required. A cover depth of six to seven feet is preferred and should be considered. While REX-East representatives have informed (October 25, 2007 meeting) ODNR-DSWC that burying the pipeline to a five-foot depth would be cost prohibitive, any increased cost of construction is minimal when viewed in light of the long-term cost and impact of a reduced depth of cover to Ohio's current and future drainage infrastructure.

The four feet of cover depth being suggested by REX-East presents a very significant challenge for Ohio landowners. In Ohio, subsurface drainage is typically installed in the three to five foot range. The pipeline's 42-inch diameter could block future subsurface drain lines from crossing the pipeline. It will not be feasible to place lines underneath the 42-inch REX-East pipeline and achieve a proper outlet nor will it be feasible to place lines above the pipeline and achieve proper cover to prevent the subsurface drain lines from being crushed. The additional depth being requested is vital to the future of agriculture in areas adjacent to the pipeline, with impacts in some cases extending several miles and affecting thousands of acres. As mentioned above, this item was discussed in detail at the October 25 meeting, but it was not resolved. ODNR considers it imperative that the 5' of depth be granted on all agricultural lands.

AIMA Inspection and Enforcement

As proposed, AIMA enforcement requires one agricultural inspector per installation spread. In Ohio, there are three and a half spreads covering 220 miles. ODNR-DSWC is concerned that with several construction crews per spread, covering approximately 70 miles with one agricultural inspector is not sufficient to adequately inspect and implement the AIMA during the installation process. To address this problem, ODNR-DSWC discussed this matter with REX representatives on October 25 and suggested additional agricultural inspectors be acquired for the construction phase of the project. As an alternative for hiring additional inspectors, ODNR-DSWC suggested that some SWCDs might be willing to contract with REX to provide for this general oversight of the AIMA. ODNR considers it imperative that REX commit additional agricultural inspectors and/or SWCD oversight to this project.

Parks and Recreational Areas

In Table 4.8.5-1 (page 4-129), the proposed crossing of Paint Creek is listed as open-cut. As noted previously, we believe open-cut crossings should be avoided, and dry-ditch crossing methods should be used instead. This comment also holds true for any other small stream crossings that may be included in the table as part of the other conventional crossing methods.

In the discussion of the Little Miami River, which begins on page 4-139, the draft EIS states that Rockies Express has agreed not to conduct normal maintenance (mowing) on its permanent right-of-way between the entrance and exit points of the drill. The

Board strongly supports this restriction. However, we have not been able to find similar language in the draft EIS document about other HDD installations. To the extent that it has not been stated in the draft EIS, the Board urges that this restriction on permanent right-of-way maintenance be applied to all HDD installation locations, and especially to those installations that cross sensitive features.

For both the Little Miami River (page 4-140) and Big Darby Creek (4-141), the draft EIS recommends that Rockies Express file site-specific crossing and restoration plans with FERC, including HDD frac-out and failure contingency plans, to be developed in consultation with ODNR and the NPS. The Board strongly supports the development of such plans, should an HDD of these areas be accepted, and urges that this recommendation be retained in the final EIS and in any final order issued by FERC. However, the Board recommends that these plans be developed in consultation with Ohio EPA (section 401 water quality certification) and the Board (HDD experience in Ohio). Additionally, while perhaps not necessarily as comprehensive as the prior plans, the Board recommends that similar plans be developed for the other HDD crossing locations.

On page 4-143 of the draft EIS, there is a brief section about “Painted Creek.” The proper designation of this creek is “Paint Creek.” This stream is a tributary to Paint Creek Lake, a prominent feature of Ohio’s Paint Creek State Park, a few miles south of Greenfield, Ohio. As noted previously, the open-cut crossing method identified for Paint Creek needs to be limited to a dry crossing.

The pipeline is proposed to cross through a portion of the Little Miami Bike Trail. Both the proposed route and the alternative route of the pipeline would cross busy staging

areas of the bike path. The ODNR Division of Parks and Recreation would prefer the construction take place during the winter months, so the fewest number of park visitors would be affected. The Division also prefers horizontal boring so the trail will not be disturbed. The Division would also like to avoid complete closure of the bike path. If a brief closure is necessary, a safe trail reroute must be provided.³

The Division requests that, for any affected parks, all construction operations should take place during the non-camping season, necessary safety precautions must be put in place, disturbed areas must be restored to the condition prior to construction, and that Best Management Practices must be utilized. The Division of Parks & Recreation takes the public's safety very seriously; therefore please take all necessary precautions to ensure the public is safe.

Because the Division of Parks and Recreation's managed lands and/or waters will be utilized for this proposed project, a real estate agreement will need to be created for each park affected by the proposed project. The agreement process should be started well in advance of the project start date.⁴ The Division's specific comments and requests, including land use requirements, will be incorporated in the Real Estate Agreements.

Boating and Navigation

The ODNR, Division of Watercraft requests that all the waters affected in the state of Ohio remain open for safe navigation during and after pipeline construction. The

³ The local contact for the Little Miami Bike Trail is Assistant Park Manager Alan Ferguson, at (513) 897-3055.

⁴ The Division of Parks and Recreation's Real Estate Manger is Kim Caris, at (614) 265-6514.

Division of Watercraft is actively involved in the removal/prevention of low head dams and other structures that impede navigation in the state. Therefore, no permanent structures associated with the pipeline should remain in the waters of Ohio that would impede and/or create a hazard for navigation. If such structures are required, mitigation techniques should be employed to reduce negative impacts.

Contact Information

The Board notes that many parks and recreational areas in Ohio may be impacted by installation of the REX pipeline. It is imperative that open and ongoing communication between FERC staff, REX, and Ohio agencies be maintained throughout this process. The following contact information is provided in order to facilitate this communication.

The proposed route is near the Governor Bebb Park. The Butler County Metroparks should be contacted regarding possible impacts to the park. They can be reached at (513) 867-5835. The proposed route passes through Raven Rocks. Richard and Mary Sidwell should be contacted regarding possible impacts to Raven Rocks. They can be reached at (740) 926-1547. The proposed route is also near Seneca Lake. The Muskingum Watershed Conservancy should be contacted regarding possible impacts to this area. They can be reached at (877) 363-8500. The proposed route is near Caesar Creek Gorge State Nature Preserve. Shannon Hoffer, Southwest District Preserve Manager, should be contacted regarding possible impacts to the preserve. He can be reached at (513) 934-0751. The proposed route is also near the Stages Pond State Nature Pre-

serve. Ron Demmy, Central District Preserve Manager, should be contacted regarding possible impacts to the preserve. He can be reached at (740) 420-3374.

The proposed route crosses the Big Darby Creek State Scenic River. Hector Santiago should be contacted regarding possible impacts to Big Darby Creek. He can be reached at (614) 265-6422. The pipeline may be crossing through Deer Creek State Park; the local contact is Regional Park Manager Jerry Boone who can be reached at (740) 869-3124. Please contact Regional Park Manager Boone with any questions and/or concerns. The proposed route also crosses the Little Miami State and National Scenic River. John Wolary should be contacted regarding possible impacts to this river. He can be reached at (513) 934-0751. Please contact Brian Mitch at (614) 265-6378 or Vicki Deisner at (614) 265-6873 for contact information not covered above or for other questions regarding state parks and recreational areas.

Aviation

The Board notes that the REX-East pipeline as proposed would be installed within one-tenth of a mile from the runway at the Fairfield County Airport, north of Lancaster, Ohio. Although this land use is not discussed in this section of the draft EIS, it is an important consideration for the construction of the pipeline. The Board believes that the height of the construction equipment to be used for installation of the pipeline would fall within the 100:1 slope restrictions that exist within 20,000 feet of the airport runway. Therefore, the Board notes that it will be necessary for REX-East to make appropriate filings with the Federal Aviation Administration and the Ohio Department of Transporta-

tion Office of Aviation prior to commencing construction within the vicinity of this airport. The Board requests that this filing requirement be included in the final EIS and in any final order issued by the FERC in this case.

4.9 Socioeconomics

The draft EIS recommends, on page 4-159, that REX-East consult with state and local transportation authorities regarding road closures and detours prior to the end of the draft EIS comment period. The Board recognizes that traffic coordination is an extremely important aspect of pipeline construction projects, which are likely to impact local roadways, and supports this recommendation. However, the Board further recommends that this consultation be on-going in nature, in order to alert local authorities of actual construction schedules and provide the opportunity for local authorities to provide additional input as local conditions may require.

4.10 Cultural Resources

In preparation of comments on the draft EIS, the Board has coordinated with other state agencies. These comments on the cultural resource section of the draft EIS were prepared in coordination with the Ohio Historic Preservation Office (OHPO), and are submitted in accordance with provisions of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 [36 C.F.R. 800]).

These comments are offered as part of consultation pursuant to Section 106 of the National Historic Preservation Act and are presented as part of an ongoing consultation

process. It is the OHPO's recollection that FERC is completing its responsibilities under Section 106 of the National Historic Preservation Act separate from, although parallel to, its responsibilities under the National Environmental Policy Act. That is, it is the OHPO's understanding that FERC is not following regulations at 36 C.F.R. Part 800.8 to integrate NHPA and NEPA reviews. If this understanding is correct, it is expected that FERC will consult directly with the OHPO and it is the OHPO's opinion that providing copies of draft and final Environmental Impact Statements will not be sufficient to conclude Section 106 consultation.

The OHPO has received a good deal of information that is directly applicable to efforts to identify historic properties within the Area of Potential Effects, to consider the potential of this undertaking to affect historic properties, and to assist the OHPO in consultation to take into account the effects of this undertaking on historic properties. The information received has been detailed, specific, and high quality. The OHPO's first and foremost comment on the draft EIS is to recognize the considerable efforts taken by the FERC to ensure that the information we have received and continue to receive meets professional standards.

The OHPO has a number of concerns that require direct consultation with FERC and require specific findings to be presented by FERC. It is recognized that in many cases FERC may rely on documentation compiled by the applicant (REX East) or by consultants, but, pursuant to regulations at 36 C.F.R. 800, FERC remains responsible for findings and under many circumstances must present findings. For the complex findings that will most likely come from the recommendations in the draft EIS, it is OHPO's

expectation that FERC will present these. Furthermore, preliminary information from Ohio suggests that the findings will likely include consultation to resolve the potential for the undertaking to have an adverse effect on historic properties. This consultation generally will take the form of a Memorandum of Agreement pursuant to regulations at 36 C.F.R. Part 800.6. We strongly encourage the FERC to proceed with consultation as though one or more Memoranda of Agreement will be required for this undertaking.

Under regulations at 36 C.F.R. Section 800.3(f), please clarify the consulting parties specific to the Ohio section. There are landowners listed in the draft EIS whose comments and recommendations concerning cultural resources are being considered by FERC but OHPO is not aware of. There is at least one landowner who has asked to be a consulting party, and OHPO has recommended to FERC that he should be a consulting party, and has provided comments and recommendations that aren't included in the draft EIS. It isn't clear to OHPO who the consulting parties are or how the consulting parties will be included in the consultation process or how the consulting parties will be provided sufficient information so that they can understand the basis for FERC decisions.

For the most part, it appears that the cultural resource recommendations made in the draft EIS are preliminary. It appears to us that this is a preliminary EIS from a cultural resource perspective. A draft EIS should provide sufficient details to allow direct comments that then form the basis for the final EIS. As it stands, it appears that the final EIS will contain recommendations that are either not specific or have not been previously presented. It isn't clear to the OHPO how to provide comment on final recommendations which will not be seen until after they have been set in stone.

The primary recommendation for cultural resources is to complete the surveys. This is further qualified that REX must obtain OHPO comments from the completed surveys prior to the authorization to begin construction. The language here is so vague and so out of step with the regulations that it is hard for the OHPO not to disagree. We have serious reservations concerning this recommendation. The regulations do not require the applicant to complete surveys. The regulations require the federal agency to take into account the effects of the undertaking. It is not for the state historic preservation office to unilaterally provide clearance. Therefore, the OHPO requests that the following questions be answered in the final EIS. How will the OHPO know that the surveys are complete or that sufficient survey information is available for the FERC to fulfill its responsibilities to take into account the effects of the undertaking on historic properties (in Ohio)? The Ohio Historic Preservation Office does not determine eligibility. How will the OHPO and other consulting parties (in Ohio) know what historic properties have been identified (in Ohio)? How will OHPO and other consulting parties know where there will be effects to historic properties and where these effects may be adverse?

Especially in complex undertakings with many identified properties and many different kinds of effects to be considered, it increasingly places the OHPO in an untenable position to expect unilateral determinations of eligibility and effect.

The draft EIS states the intended goal of avoidance. In many cases with these kinds of undertakings we agree that avoidance is a good strategy. However, the wording here and throughout the draft EIS concerning avoidance is vague. The OHPO expects that for each property that we have established through consultation meets National

Register eligibility criteria or for each property where we have agreed in consultation warrants further research to more fully consider its National Register eligibility that the FERC provide specific measures stipulating how the property will be avoided. For example, in some cases it may be appropriate to stipulate that the contractor will place snow fencing along the ROW during construction, or, in some cases it may be appropriate to stipulate that a professional archaeologist will monitor the construction along a specific section, or, in some cases it may be appropriate to stipulate that the contractor will restore the construction zone to pre-existing conditions and receive approval of the Environmental Inspector. In some cases, the avoidance at a property may be carried out under a FERC finding of No Adverse Effect. The FERC needs to make clear its findings as a part of the avoidance measures that it is requiring.

The draft EIS discusses several considered reroutes and alternative route sections for Ohio. These discussions are helpful. For the most part, there is no comparable information on alternative route sections that would allow meaningful comparisons. In many cases, the compilation of some survey information along proposed alternate routes will allow this level of comparison. It isn't the intent here to comment on all of these alternative route sections or reroutes; however, brief comments are warranted on the proposed alternate route that extends to the south of Caesar Creek Lake. A check of OHPO records shows that there are many known cultural resources in the general vicinity of the proposed southern route including at least one National Register listed property that is quite close to the southern route. If the southern route is carefully and systematically surveyed to identify historic properties and evaluated to consider effects and it can be

shown that the specific corridor for this southern reroute successfully avoids adverse effects, then the OHPO would not object. Based on available information, the OHPO believes that the evaluation of this proposed southern route will require the compilation of a good deal of additional information.

In summary, there is much to be considered in concluding consultation for this undertaking. There is much that the FERC needs to clarify and present in order for the Ohio Historic Preservation Office to concur with FERC findings. At this time, the OHPO's primary concerns are for FERC to clarify consulting parties and to provide specificity of treatment measures where a strategy of avoidance is employed. Especially where avoidance is proposed, we recommend further consultation to make sure that we are in agreement on the terms of this commitment.⁵

4.11 Air Quality and Noise

As discussed in the draft EIS, the primary sources of air pollution and noise would be the activities associated with construction of the pipeline and the operation of the compressor stations. The draft EIS also makes several recommendations related to air pollution and noise issues that the Board supports. However, as noted previously, the Board has not yet had the opportunity to review the only recently revised Hamilton compressor station location. Because noise is a critical component in the appropriate siting of

⁵ Any questions concerning cultural resource comments should be addressed to David Snyder, Archaeology Reviews Manager, at (614) 298-2000.

a compressor station, the Board will reserve comment on this revised compressor station location until such time as it is able to review the new location.

4.12 Reliability and Safety

Safe operation and maintenance of the REX-East natural gas pipeline, if constructed, is of primary importance. The draft EIS properly notes that the federal Department of Transportation has been required to administer a national regulatory program to ensure the safe operation of natural gas pipelines. The draft EIS further notes that the REX-East pipeline and above ground facilities must be designed, constructed, operated, and maintained in accordance with the DOT Minimum Federal Safety Standards in 49 C.F.R. Part 192. Assurance of compliance with these safety regulations is achieved through inspection and monitoring conducted by the Department of Transportation or its partners at appropriate state agencies. The Board believes that adherence to all required safety standards will assure that the natural gas pipeline and associated equipment will be operated in a safe and reliable fashion, thus minimizing the possibility of failure in the gas supply system.

4.13 Cumulative Impacts

On pages 4-211 and 4-214, the partially-constructed Dresden Energy Facility is listed as having a completion/operation date of 2007. Because construction was not resumed during 2007, the 2007 completion date is no longer applicable. The Board does not currently have an estimated date of completion, but believes that it will not be before

2009. Further, the Board notes that the second footnote at the bottom of page 4-214 incorrectly states that, "The Dresden Energy Electric Facility is also commonly referred to as American Electric Power (AEP) Muskingum River Power Plant." AEP's Muskingum River Power Plant is actually located well to the south on the river at the border of Morgan and Washington counties. The Board is not aware of the Dresden Energy facility being renamed since its purchase by AEP.

At the bottom of Page 4-219 to the top of page 4-220, the draft EIS states that the Rockies Express project plans to cross the tributaries of Big Darby Creek using the open-cut method, potentially resulting in cumulative impacts on water quality. However, this is in conflict with earlier, preferable, statements in the draft EIS (page 4-142), where the FERC staff recommends that Rockies Express file a site-specific plan for the crossing of each tributary of Big Darby Creek that includes a dry-crossing method.

Included in this section of the draft EIS is discussion about cumulative impacts to surface water resources (pages 4-219 and 4-220) due to construction of this and other projects that would include sedimentation caused by in-stream construction. Historically, sedimentation has been a very significant cause of water quality impairment in Ohio. Open-cut waterbody crossings will only exacerbate this situation by putting greater quantities of sediment in suspension and transporting them downstream. This further emphasizes the need for prohibiting open-cut waterbody crossings in Ohio except during no-flow conditions.

The draft EIS accurately depicts the historical loss of wetlands in the Midwest (pages 4-220 through 4-223), noting that natural resource agencies have determined all

remaining wetlands in the four-state area (MO, IL, IN, OH) to be important for conservation purposes. The draft EIS notes the long-term and permanent impacts of the pipeline project on highly valuable forested wetlands, contributing to likely cumulative wetland impacts as a result of project implementation. Therefore, as noted previously, the Board strongly encourages the use of HDD installation whenever feasible for all forested wetland crossings, with a restriction on clearing during future right-of-way maintenance that would preserve the wetland trees and shrubs, as an important method of protecting remaining forested wetland sites.

Assuming that the amount of construction disturbance through wetlands where HDD is not used (*i.e.*, non-forested, lower quality wetlands) is minimized, surface soil is segregated and replaced, soil compaction is avoided, wetland micro-topography and surface water flow is maintained, pipeline trenches are plugged to prevent sub-surface dewatering of wetlands, proper site restoration and monitoring is carried out, adjacent buffer areas are not disturbed, and future right-of-way maintenance work is minimal, the Rockies Express pipeline corridor could serve to help provide long-term protection for some of the remaining Midwest wetlands.

Long-term loss of forested areas due to pipeline clearing work and the resulting forest fragmentation are identified in the draft EIS (pages 4-223 through 4-225) as important elements in potential cumulative impacts for a variety of bird and other wildlife species. As noted in previous comments above, the Board requests that selective use of HDD for boring under critical forest areas should be considered as a method for minimizing loss of woodlands and the resulting adverse impacts.

In discussion of cumulative impacts on fisheries and mussels (pages 4-228 through 4-229 and 4-231 through 4-232), sedimentation was noted in the draft EIS for its potential cumulative impact on both fish and mussel species. Once again, the Board notes the critical importance of not allowing open-cut crossings of any flowing waterbody as an effective method for reducing sedimentation impacts on aquatic species.

Conclusion

The REX-East project will significantly impact the state of Ohio. Thirteen Ohio counties will be burdened with the pipeline, compressor stations, and other related equipment if FERC issues a certificate and the pipeline is constructed. The Ohio Power Siting Board applauds the thoroughness and comprehensiveness of FERC Staff efforts, both in their preparation of the draft EIS and in their open and ongoing communication with member agencies of the Board. We again appreciate this opportunity to comment and urge the FERC to give careful and studied consideration to these comments.

Respectfully Submitted,

Marc Dann
Attorney General

/s/ William L. Wright

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**Attorney for the
Ohio Power Siting Board**

Proof of Service

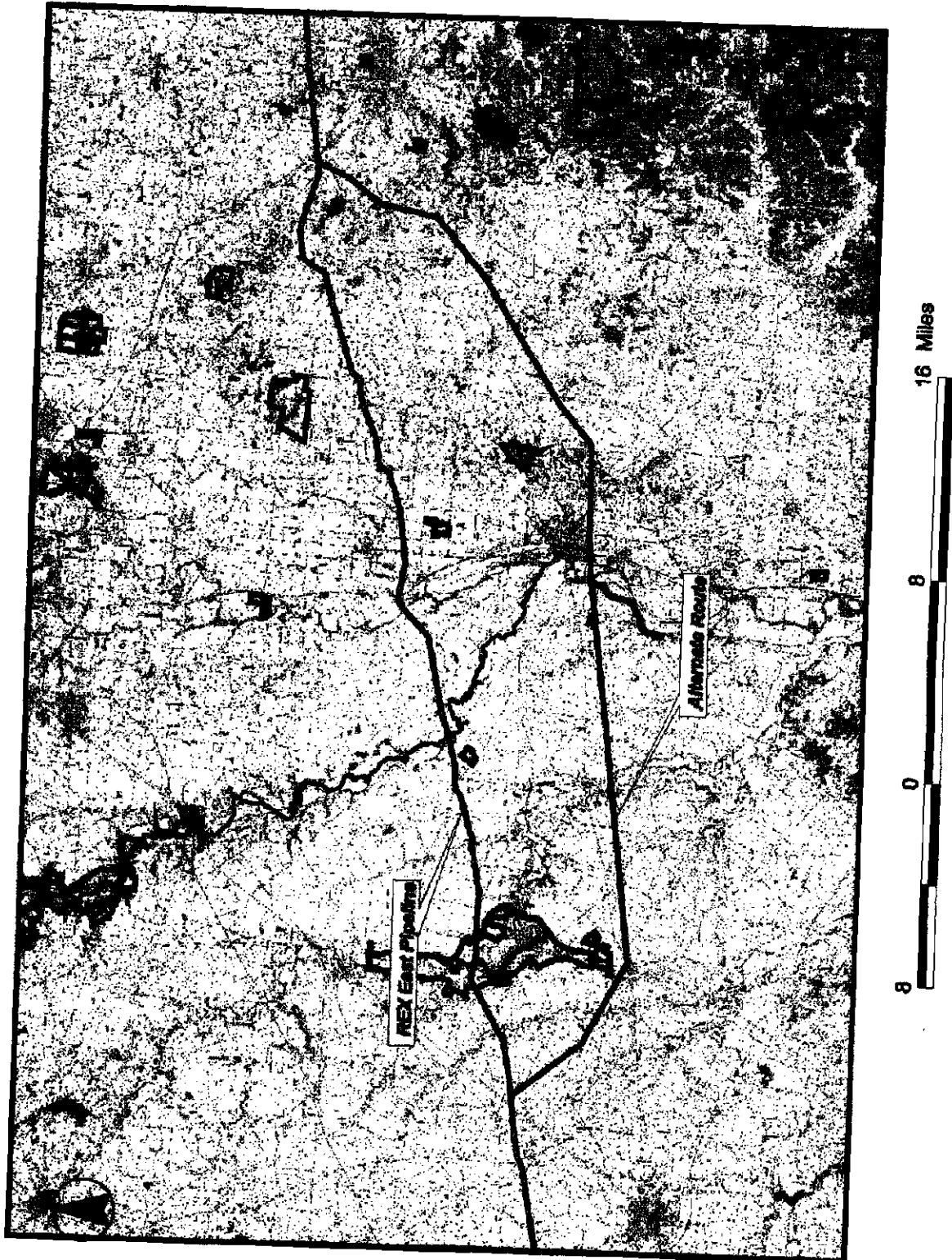
I hereby certify that the foregoing have been served in accordance with 18 C.F.R. Sec. 385.2010 upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ William L. Wright

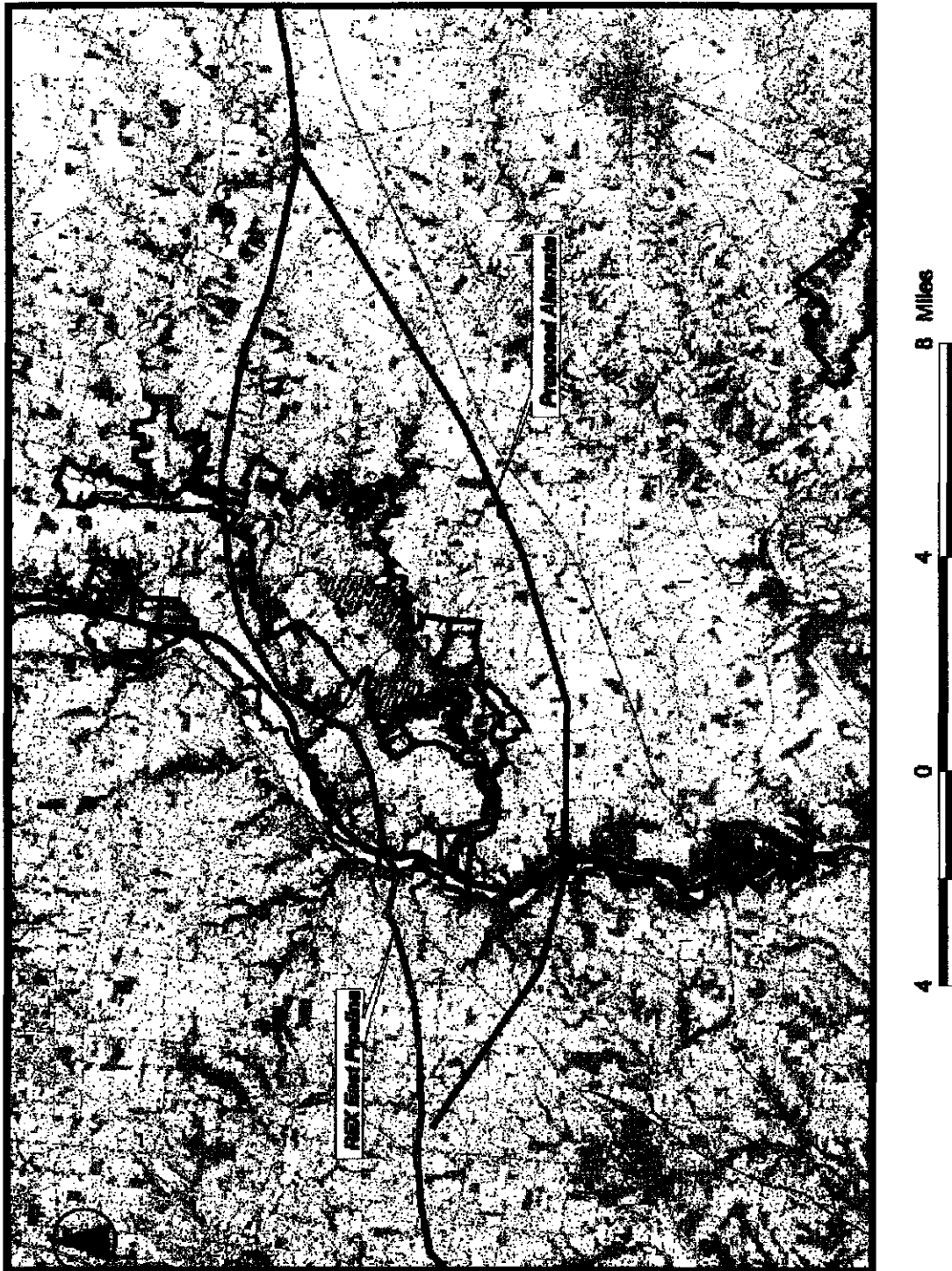
William L. Wright
Assistant Attorney General

Dated at Columbus, Ohio this January 14, 2008.

Big Darby Creek Alternate



Little Miami Alternate Route



ATTACHMENT C

07-0258 Rockies Express East DEIS – Rare Species List and Maps

07-0258 Rockies Express East DEIS

	<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Last Observed</u>
1	<i>Ammocrypta pellucida</i>	Eastern Sand Darter	SC		1983-07
2	<i>Ammocrypta pellucida</i>	Eastern Sand Darter	SC		1988-09-22
3	<i>Ammocrypta pellucida</i>	Eastern Sand Darter	SC		1960-10
4	<i>Arabis hirsuta</i> var. <i>adpressipilis</i>	Southern Hairy Rock Cress	P		1953-05-29
5	<i>Aster drummondii</i>	Drummond's Aster	T		1993-09
6	<i>Bartramia longicauda</i>	Upland Sandpiper	T		1982-06-26
7	<i>Clemmys guttata</i>	Spotted Turtle	T		1995 (NO DATE)
8	<i>Clemmys guttata</i>	Spotted Turtle	T		1985 (NO DATE)
10	<i>Clonophis kirtlandii</i>	Kirtland's Snake	T		1995 (NO DATE)
9	<i>Clonophis kirtlandii</i>	Kirtland's Snake	T		1995 (NO DATE)
11	<i>Corallorhiza wisteriana</i>	Spring Coral-root	P		2001-05-09
12	<i>Corallorhiza wisteriana</i>	Spring Coral-root	P		2001-05-09
13	<i>Cystopteris tennesseensis</i>	Tennessee Bladder Fern	P		1982-09
14	<i>Cystopteris tennesseensis</i>	Tennessee Bladder Fern	P		1983-08
15	<i>Elliptio crassidens</i>	Elephant-ear	E		1982-10-01
16	<i>Elliptio crassidens</i>	Elephant-ear	E		1961-03-29
17	<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E	FE	1961-10-04
18	<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E	FE	1958-08-07
19	<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E	FE	1990-11-04
20	<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E	FE	1962-03-28
21	<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E	FE	1983-08-17
22	<i>Epioblasma triquetra</i>	Snuffbox	E		1990-09-08
23	<i>Epioblasma triquetra</i>	Snuffbox	E		1990-08
24	<i>Epioblasma triquetra</i>	Snuffbox	E		1990-09-02

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	<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Last Observed</u>
25	<i>Epiblasma triquetra</i>	Snuffbox	E		1962-03-28
26	<i>Epiblasma triquetra</i>	Snuffbox	E		1996-08-11
27	Erratic				1984
28	<i>Etheostoma camurum</i>	Bluebreast Darler	T		1992-10-14
29	<i>Etheostoma camurum</i>	Bluebreast Darler	T		1985-09-13
30	<i>Etheostoma camurum</i>	Bluebreast Darler	T		1963-09
31	<i>Etheostoma camurum</i>	Bluebreast Darler	T		1988-08-03
32	<i>Etheostoma maculatum</i>	Spotted Darler	E		1997-09-30
33	<i>Etheostoma tippecanoe</i>	Tippecanoe Darler	T		1988-08-03
34	<i>Etheostoma tippecanoe</i>	Tippecanoe Darler	T		1993-05-28
35	<i>Etheostoma tippecanoe</i>	Tippecanoe Darler	T		1997-10-06
36	<i>Etheostoma tippecanoe</i>	Tippecanoe Darler	T		1985-09-13
37	<i>Exoglossum laurae</i>	Tonguetied Minnow	T		1975-08-27
38	<i>Felis rufus</i>	Bobcat	E		2002-12-24
39	Floodplain forest				1987-08-21
40	Fossil deposit				1972
41	Fossil deposit				1987-07
42	<i>Fusconeia maculata maculata</i>	Long-solid	E		1961-10-04
43	<i>Gentianopsis procera</i>	Small Fringed Gentian	P		1962-09-24
44	<i>Gomphus externus</i>	Plains Clubtail	E		1992-10-05
45	<i>Graptemys pseudogeographica</i>	False Map Turtle	SC		1964-06-18
46	Great Blue Heron Rookery				1985-02
47	Hemlock-hardwood forest				1983-09-08
48	<i>Hiodon alosoides</i>	Goldeye	E		1959-09
49	<i>Hiodon alosoides</i>	Goldeye	E		1997-08-11
50	<i>Ichthyomyzon fossor</i>	Northern Brook Lamprey	E		1970-05-11

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	<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Last Observed</u>
51	<i>Ictalurus furcatus</i>	Blue Catfish	SC		1987-08-27
52	<i>Ixobrychus exilis</i>	Least Bittern	T		1987-07-10
53	<i>Ixobrychus exilis</i>	Least Bittern	T		1987-07-10
54	<i>Juncus diffusissimus</i>	Diffuse Rush	E		1983-08-30
55	<i>Ladona deplanata</i>	Blue corporal	E		1992-05-19
56	<i>Lampsilis fasciola</i>	Wavy-rayed Lampmussel	SC		1986-08-11
57	<i>Lampsilis ovata</i>	Pocketbook	E		1959-09-10
58	<i>Lampsilis ovata</i>	Pocketbook	E		1961-10-04
59	<i>Lanius ludovicianus</i>	Loggerhead Shrike	E		1987-06
60	<i>Lanius ludovicianus</i>	Loggerhead Shrike	E		1987-06
61	<i>Ligumia recta</i>	Black Sandshell	T		1990-11-02
62	Maple-ash-oak swamp				1988-07-13
63	<i>Megalania nervosa</i>	Washboard	E		1986-08-25
64	<i>Megalania nervosa</i>	Washboard	E		1996-10-12
65	<i>Megalania nervosa</i>	Washboard	E		2002-08-19
66	<i>Menyanthes trifoliata</i>	Buckbean	T		1980-05-13
67	<i>Moxostoma carinatum</i>	River Redhorse	SC		1985-08-19
68	<i>Moxostoma carinatum</i>	River Redhorse	SC		1988-08-12
69	<i>Moxostoma carinatum</i>	River Redhorse	SC		1962-08-23
70	Mussel Bed				1990-09
71	Mussel Bed				1990-09
72	Mussel Bed				1990-09
73	Mussel Bed				1990-10
74	Mussel Bed				1990-08
75	Mussel Bed				1990-09
76	Mussel Bed				1990-10

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	<u>Scientific Name</u>	<u>Common Name</u>	<u>State Status</u>	<u>Federal Status</u>	<u>Last Observed</u>
77	Mussel Bed				1990-09
78	Mussel Bed				1990-09
79	Mussel Bed				1990-11-02
80	Mussel Bed				1990-09
81	Mussel Bed				1990-09
82	Non-calcareous cliff community				1983-09-08
83	Non-calcareous cliff community				1983-08-30
84	Noturus eleutherus	Mountain Madtom	E		1986-09-11
85	Noturus stigmosus	Northern Madtom	E		1984-11
86	Noturus stigmosus	Northern Madtom	E		1992-08-25
87	Noturus trautmani	Scioto Madtom	E	FE	1957-11-17
88	Oak-maple forest				1980-06
89	Obliquaria reflexa	Threehorn Wartyback	T		1980-07-18
90	Orconectes sloanii	Sloan's Crayfish	T		1961-10
91	Oxalis montana	White Wood-sorrel	E		2003-06-24
92	Pleurobema clava	Clubshell	E	FE	1994-06-18
93	Pleurobema clava	Clubshell	E	FE	1961-07
94	Pleurobema clava	Clubshell	E	FE	1972-12-31
95	Pleurobema cordatum	Ohio Pigtoe	E		2002-08-02
96	Pleurobema sintoxia	Round Pigtoe	SC		1990-09
97	Pleurobema sintoxia	Round Pigtoe	SC		1990-11-2
98	Pleurobema sintoxia	Round Pigtoe	SC		1983-08
99	Polyodon spathula	Paddlefish	T		1990-07
100	Quadrula cylindrica cylindrica	Rabbitsfoot	E		1961-10-03
101	Quadrula cylindrica cylindrica	Rabbitsfoot	E		1961-10-04
102	Quadrula cylindrica cylindrica	Rabbitsfoot	E		1983-08

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103	<i>Rallus limicola</i>	Virginia Rail	SC		1983-04-23
104	<i>Rallus limicola</i>	Virginia Rail	SC		1983-04-23
105	<i>Ramalina intermedia</i>	Rock Ramalina	E		2005-09-18
106	<i>Sagittaria montevidensis</i>	Southern Wapato	P		1990-08-16
107	<i>Salix caroliniana</i>	Carolina Willow	P		1990-08
108	<i>Salix caroliniana</i>	Carolina Willow	P		1953-05-29
109	<i>Salix caroliniana</i>	Carolina Willow	P		1990-08
110	<i>Silene nivea</i>	Snowy Campion	E		1981-06-28
111	<i>Simpsonaias ambigua</i>	Salamander Mussel	SC		1975-04
112	<i>Sistrurus catenatus</i>	Eastern Massasauga	E		1975-09-28
113	<i>Sistrurus catenatus</i>	Eastern Massasauga	E		1975-09-28
114	<i>Sistrurus catenatus</i>	Eastern Massasauga	E		1995-06-13
115	<i>Sphenopholis obtusata</i> var. <i>obtusata</i>	Prairie Wedge Grass	T		1980-06-05
116	Stream gorge				1987-07
117	Stream gorge				1972
118	Stream gorge				1983-08
119	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		2005-08-19
120	<i>Toxolasma lividus</i>	Purple Lilliput	E		1973-10
121	<i>Triphora trianthophora</i>	Three-birds Orchid	P		1997-08-23
122	<i>Triphora trianthophora</i>	Three-birds Orchid	P		2001-08-14
123	<i>Truncilla donaciformis</i>	Fawnsfoot	T		1990-08
124	<i>Truncilla donaciformis</i>	Fawnsfoot	T		1990-09-08
125	<i>Truncilla donaciformis</i>	Fawnsfoot	T		1962-07
126	<i>Truncilla donaciformis</i>	Fawnsfoot	T		1980-07-17
127	<i>Truncilla donaciformis</i>	Fawnsfoot	T		1990-09-03
128	<i>Truncilla donaciformis</i>	Fawnsfoot	T		1990-10-31

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129	<i>Truncilla truncata</i>	Deertoe	SC		1964-01-30
130	<i>Truncilla truncata</i>	Deertoe	SC		1990-09
131	<i>Truncilla truncata</i>	Deertoe	SC		1986-08
132	<i>Villosa labialis</i>	Rayed Bean	E		1973-01-27
133	<i>Zigadenus elegans</i>	White Wand-lily	P		1962-07 (NO DATA)

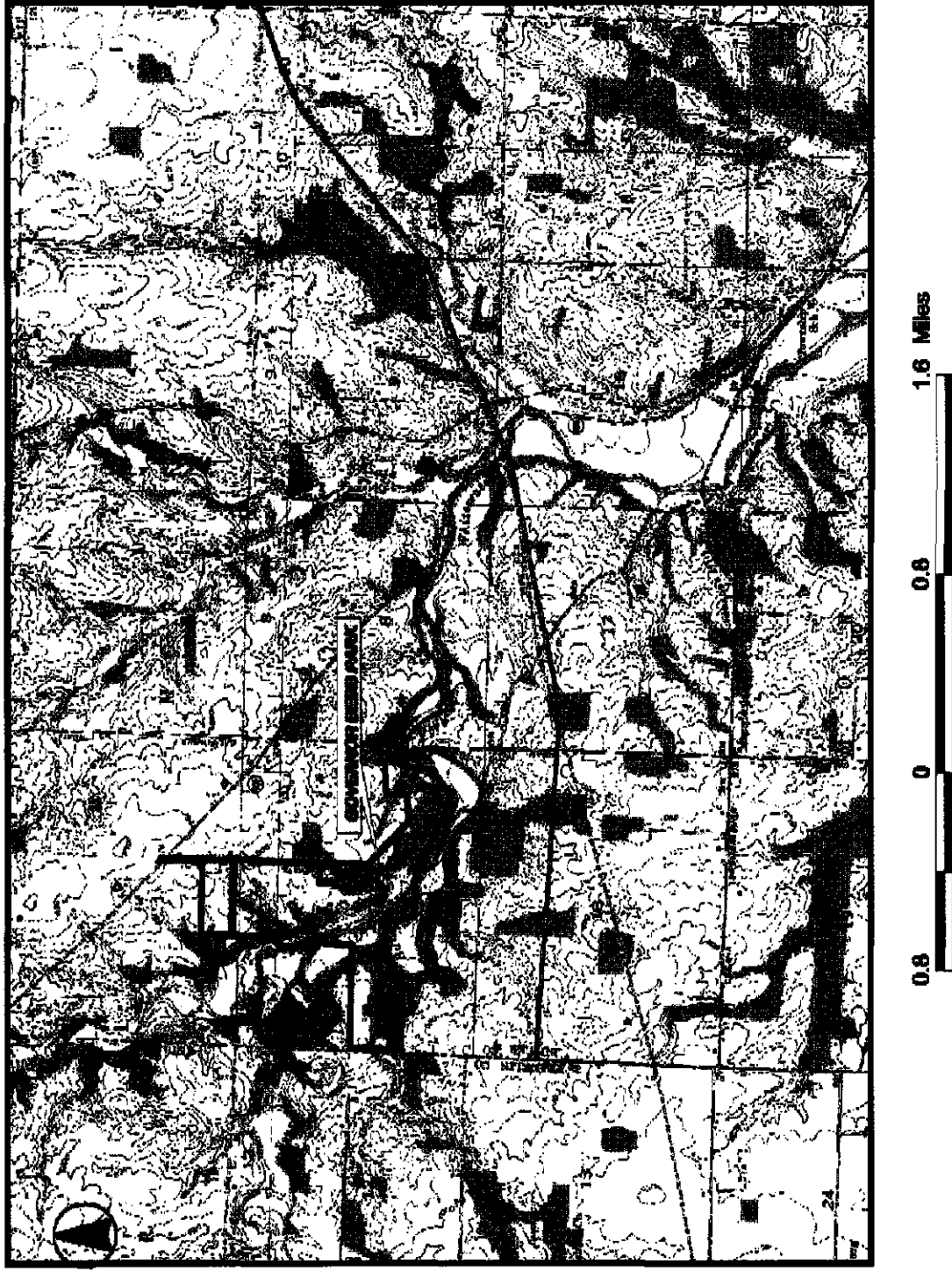
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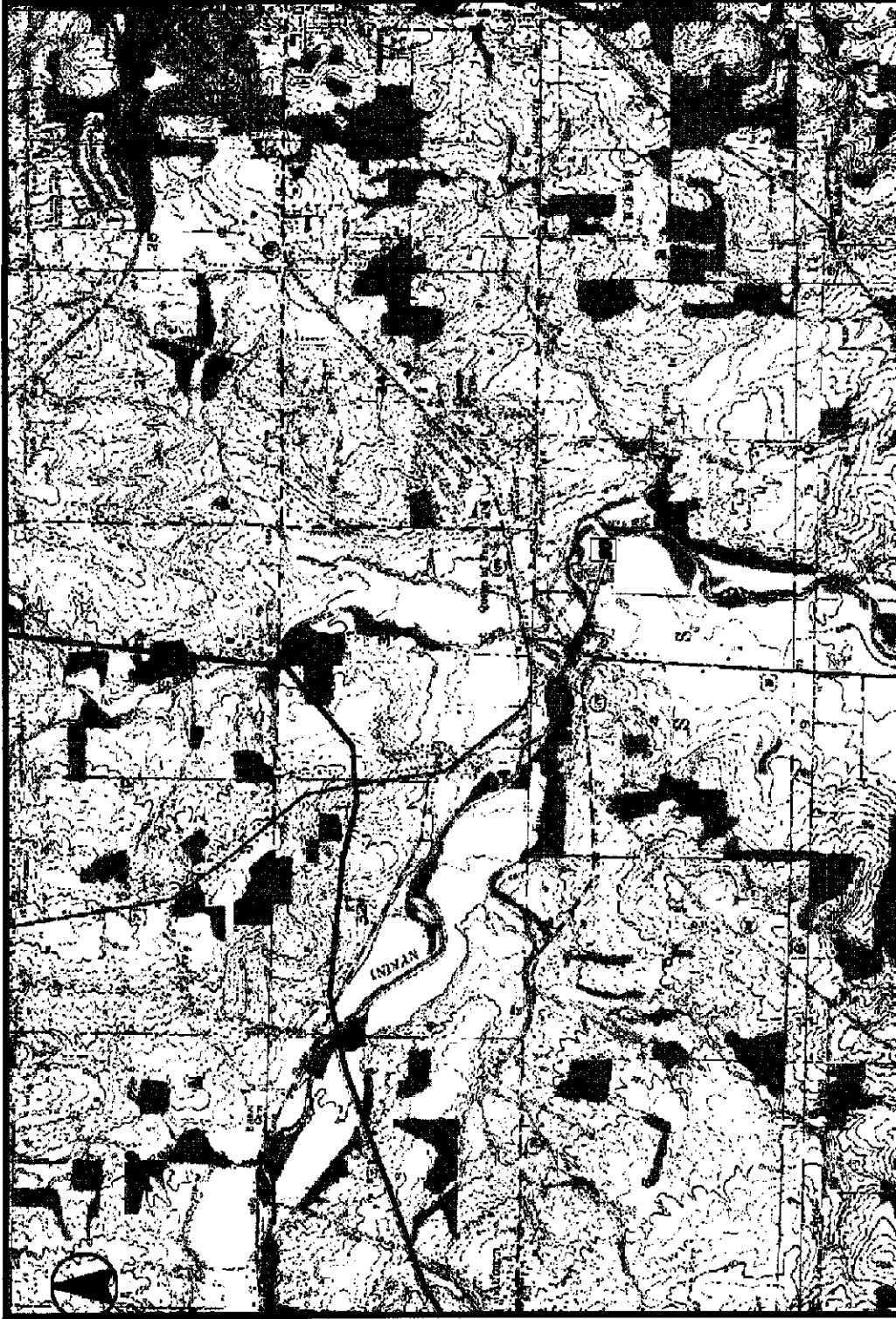
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Page 6 of 6

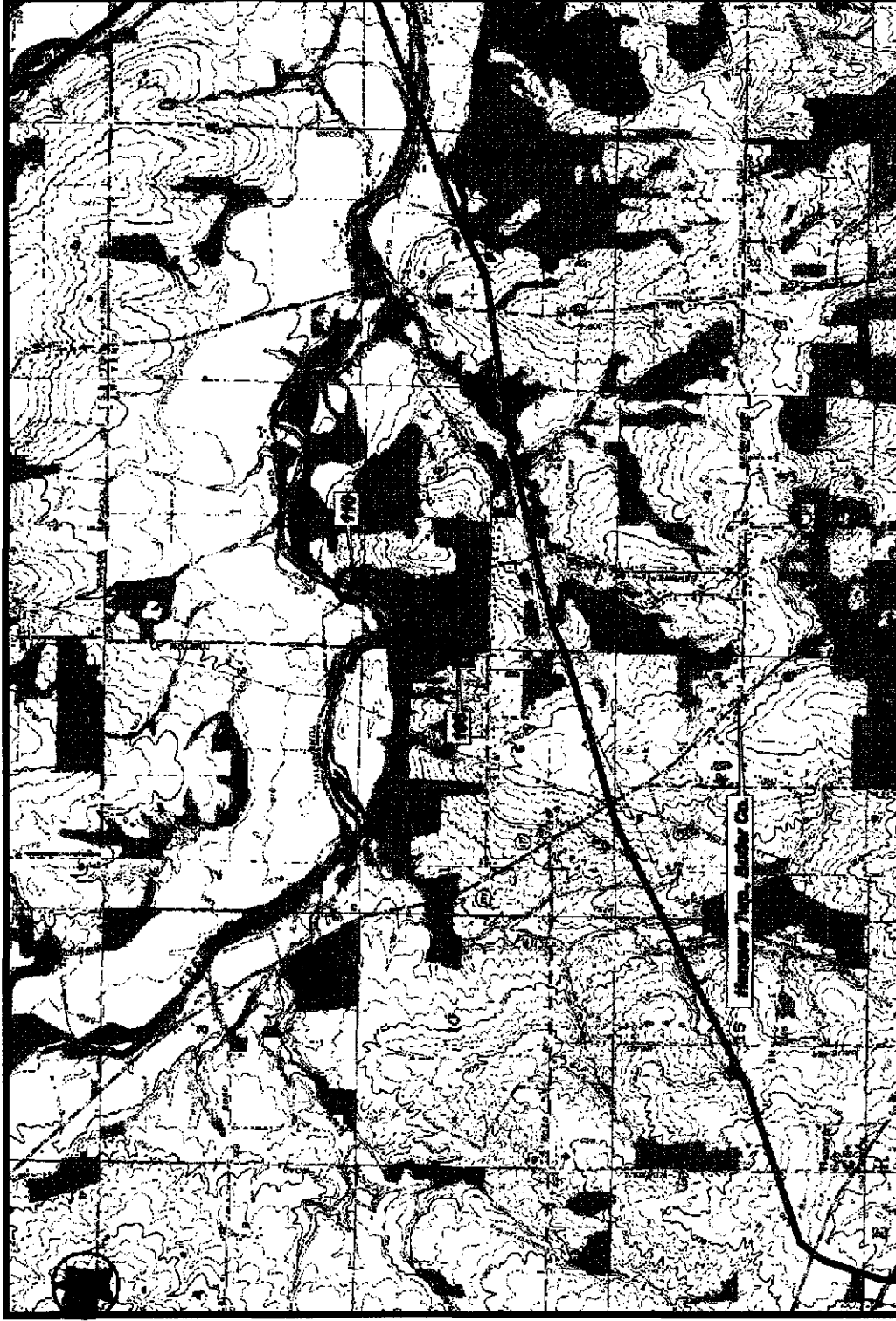
07-0258 Rockies Express East DEIS map1



07-0258 Rockies Express East DEIS map2



07-0258 Rockies Express East DEIS map3



0.8 0 0.8 1.6 Miles

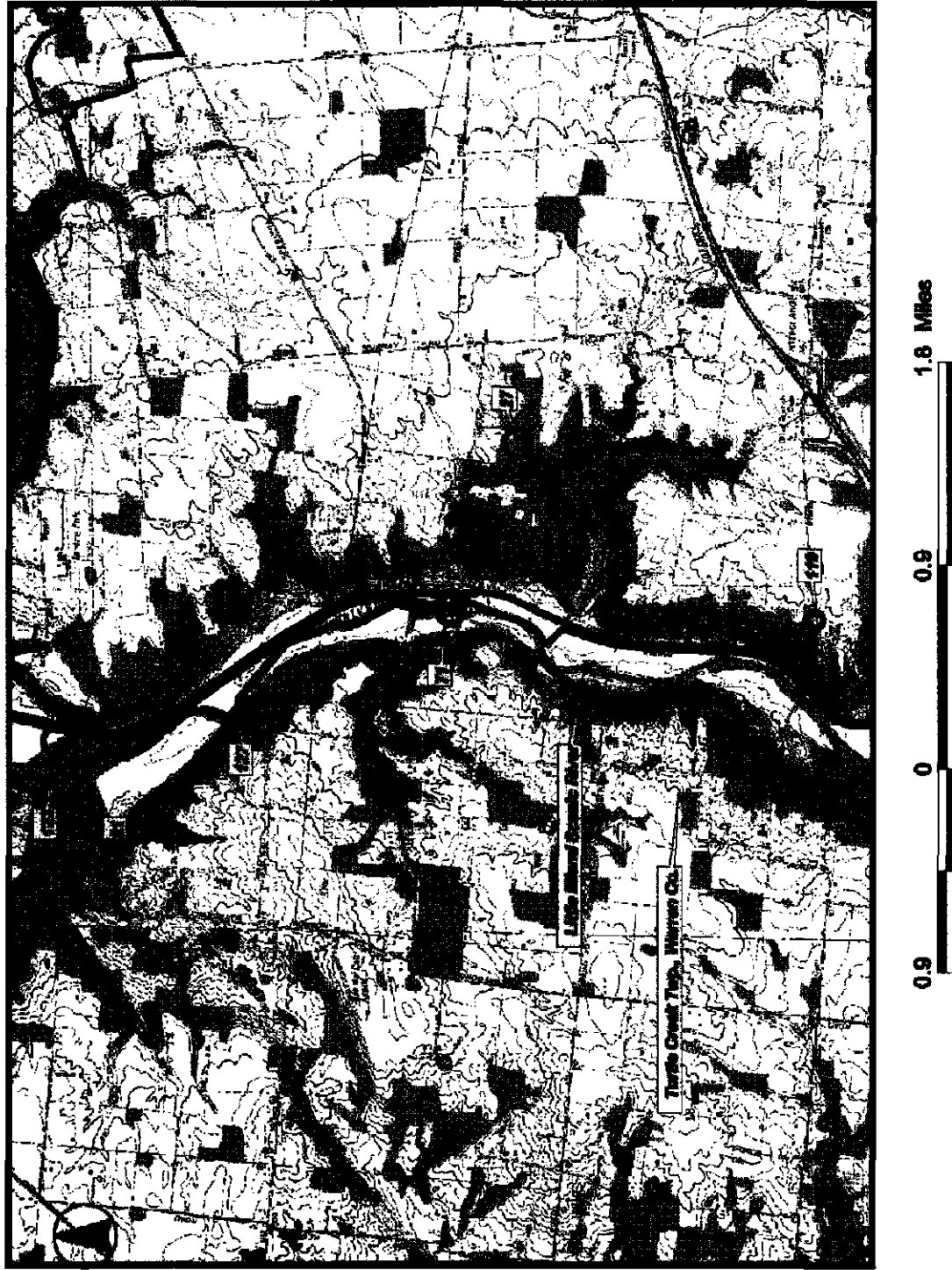
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07-0258 Rockies Express East DEIS map5

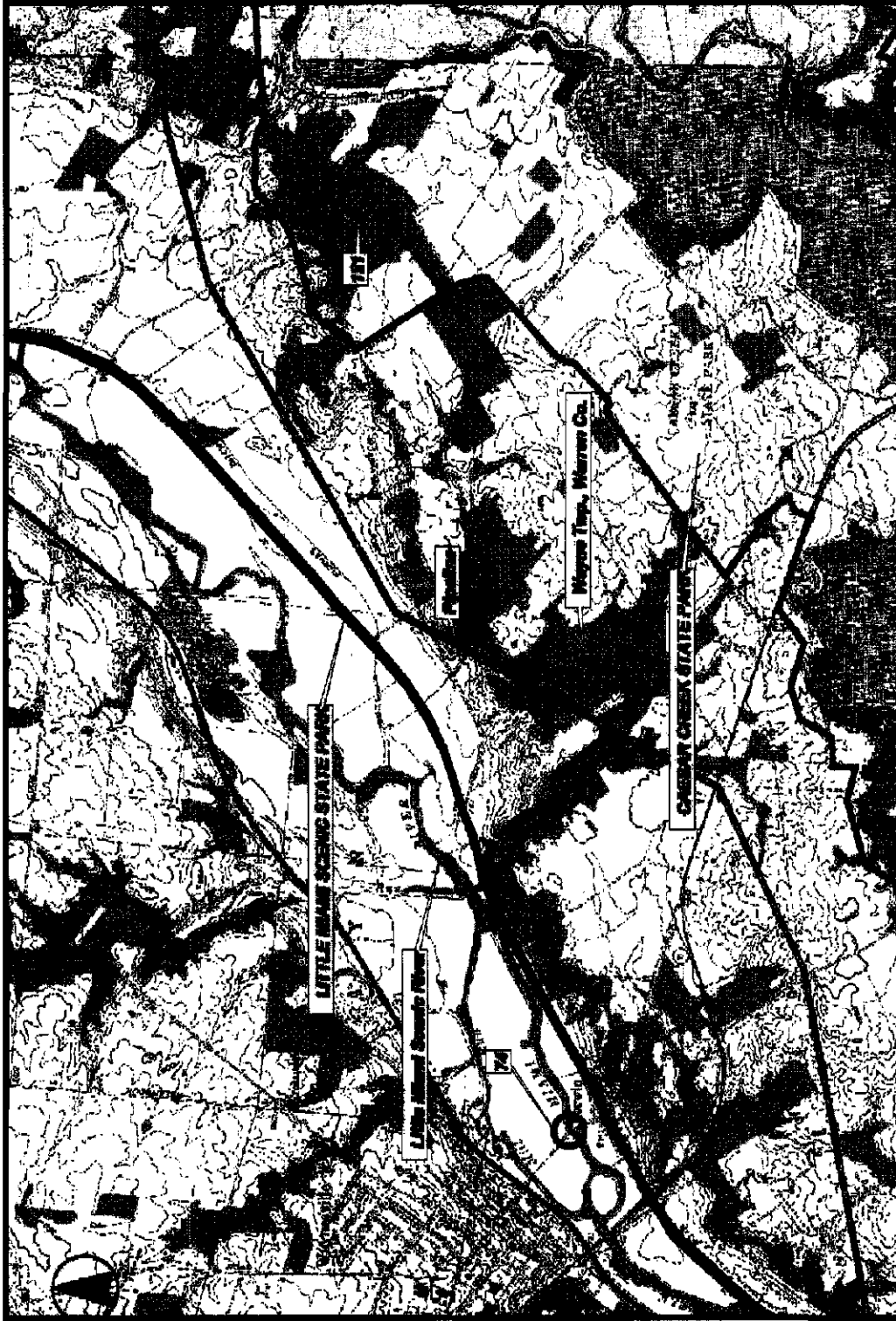


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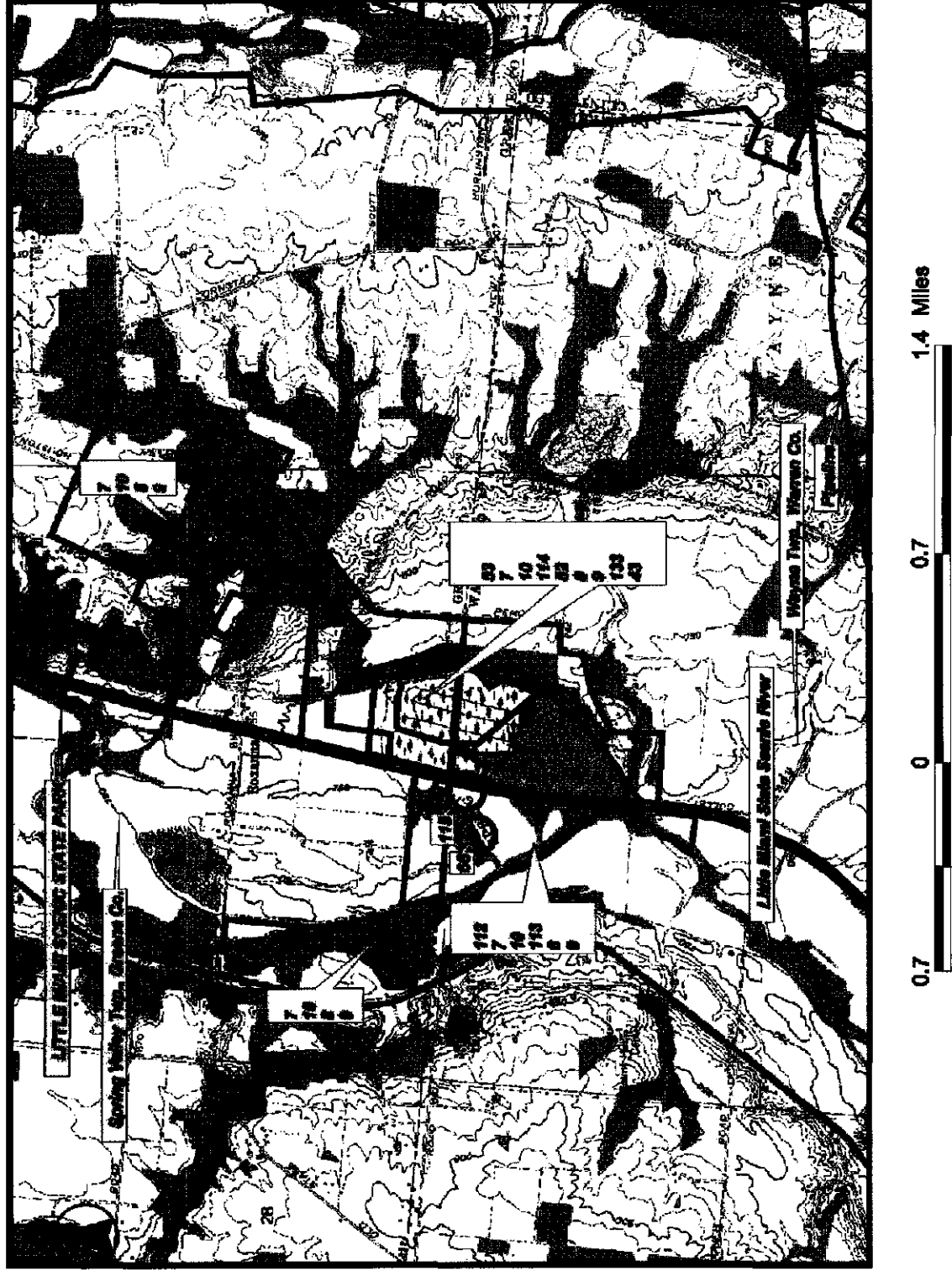




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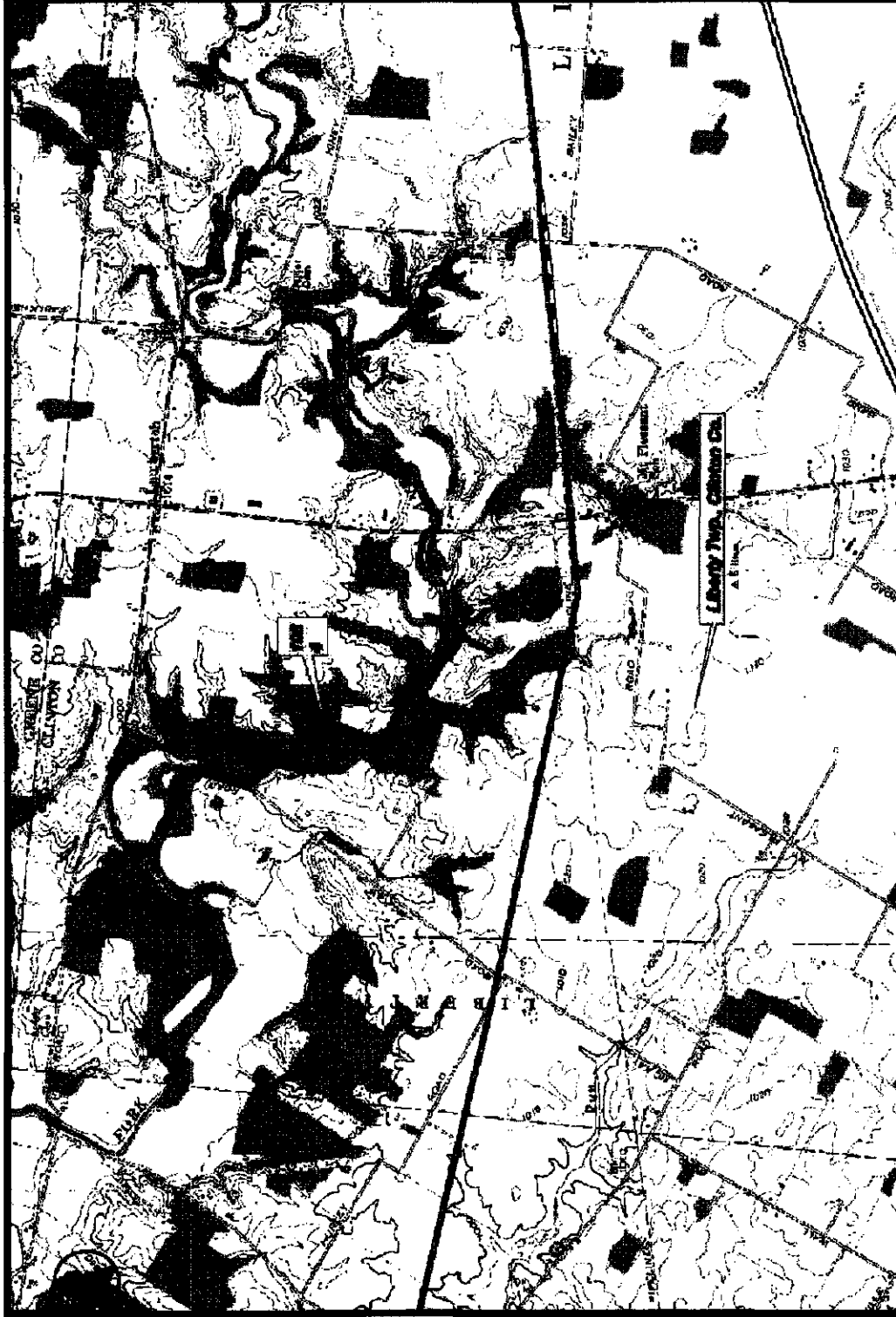
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07-0253 Rockles Express East DEIS map10

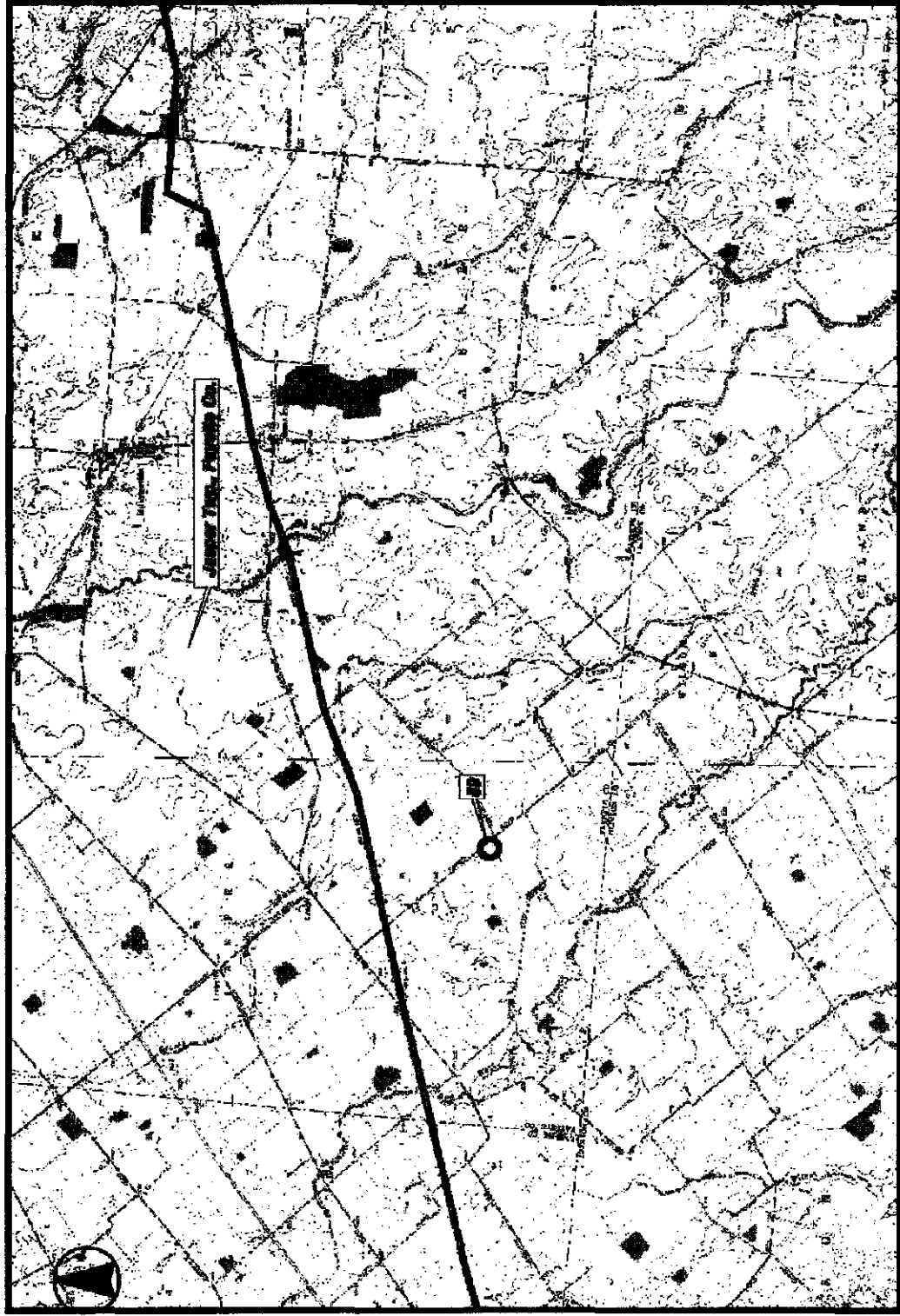


07-0258 Rockies Express East DEIS map11



0.7 0 0.7 1.4 Miles

07-0258 Rockies Express East DEIS map12

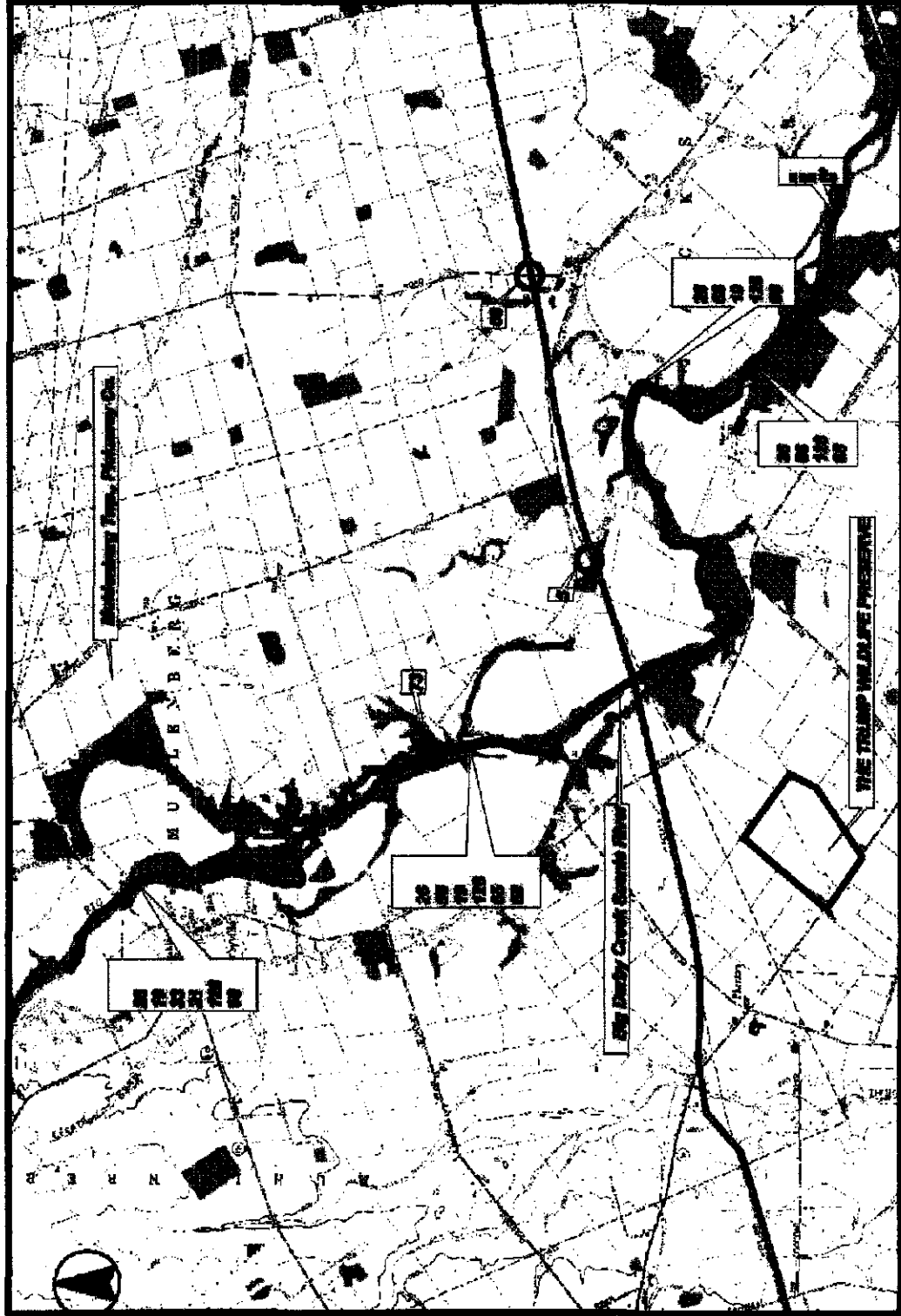


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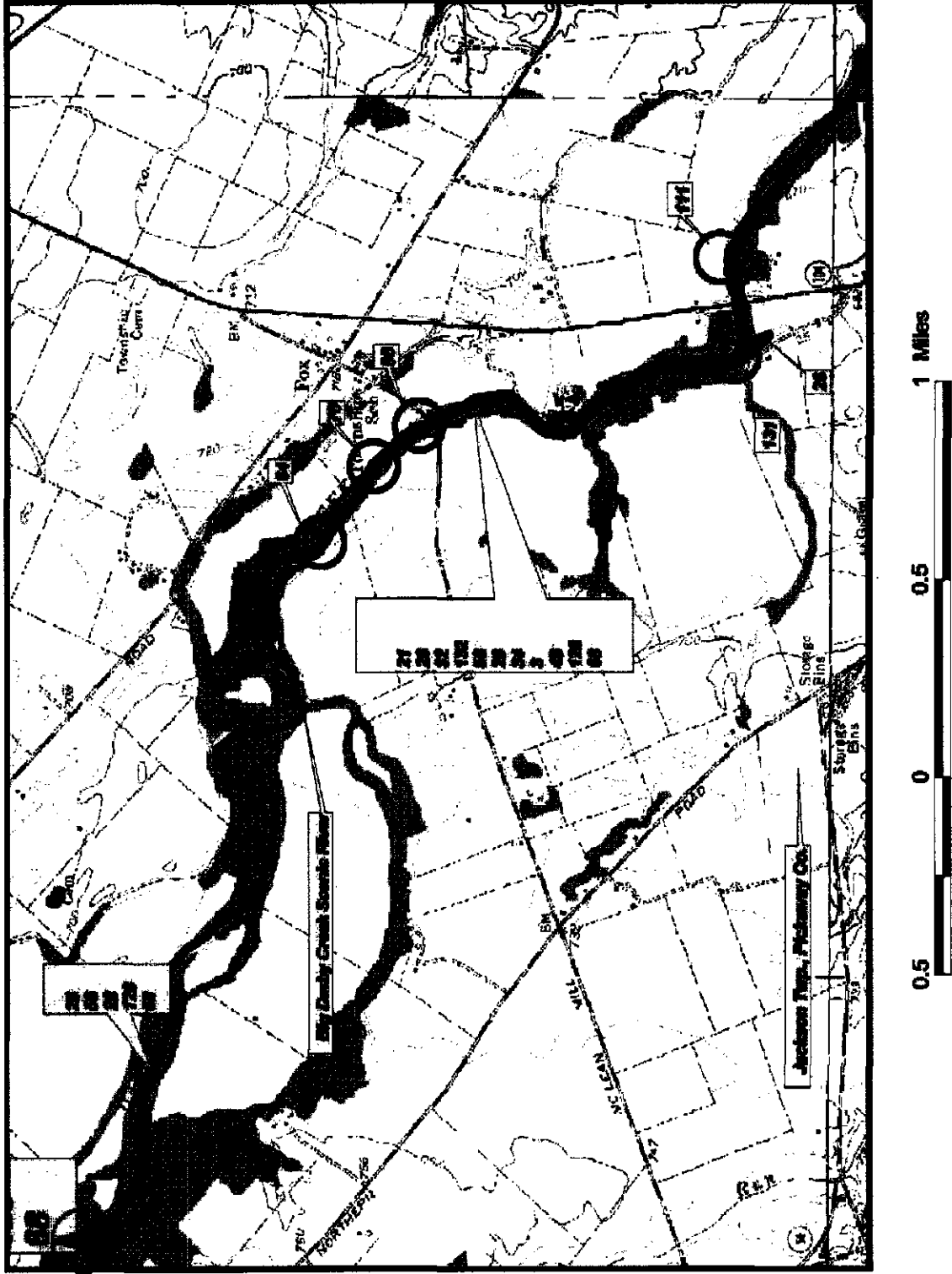


3 0 3 6 Miles

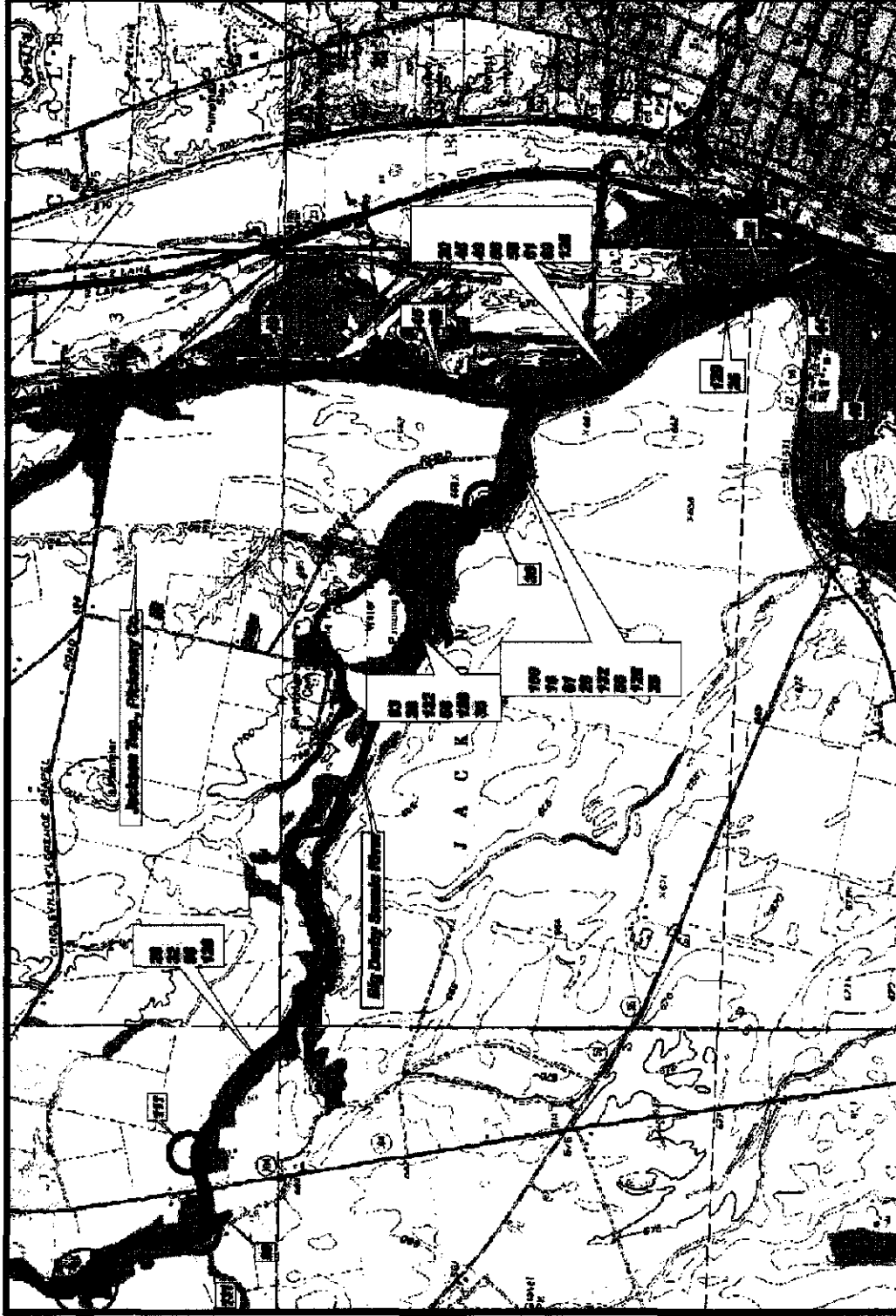
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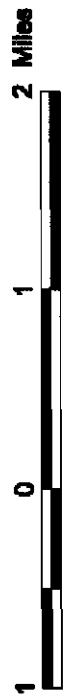
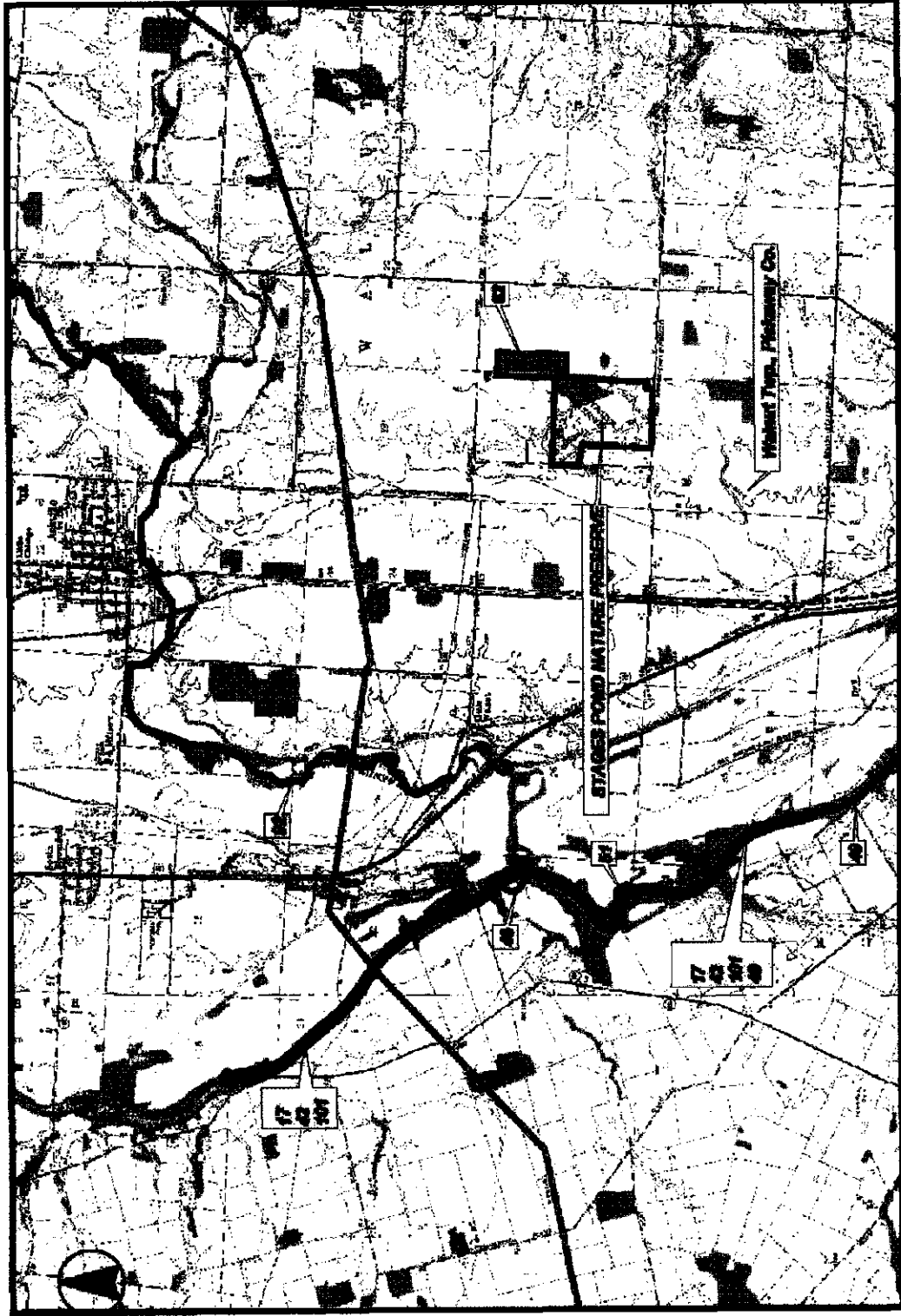
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07-0258 Rockies Express East DEIS map16



07-0258 Rockies Express East DEIS map 17



07-0258 Rockies Express East DEIS map18



07-0258 Rockies Express East DEIS map19



07-0258 Rockies Express East DEIS map20

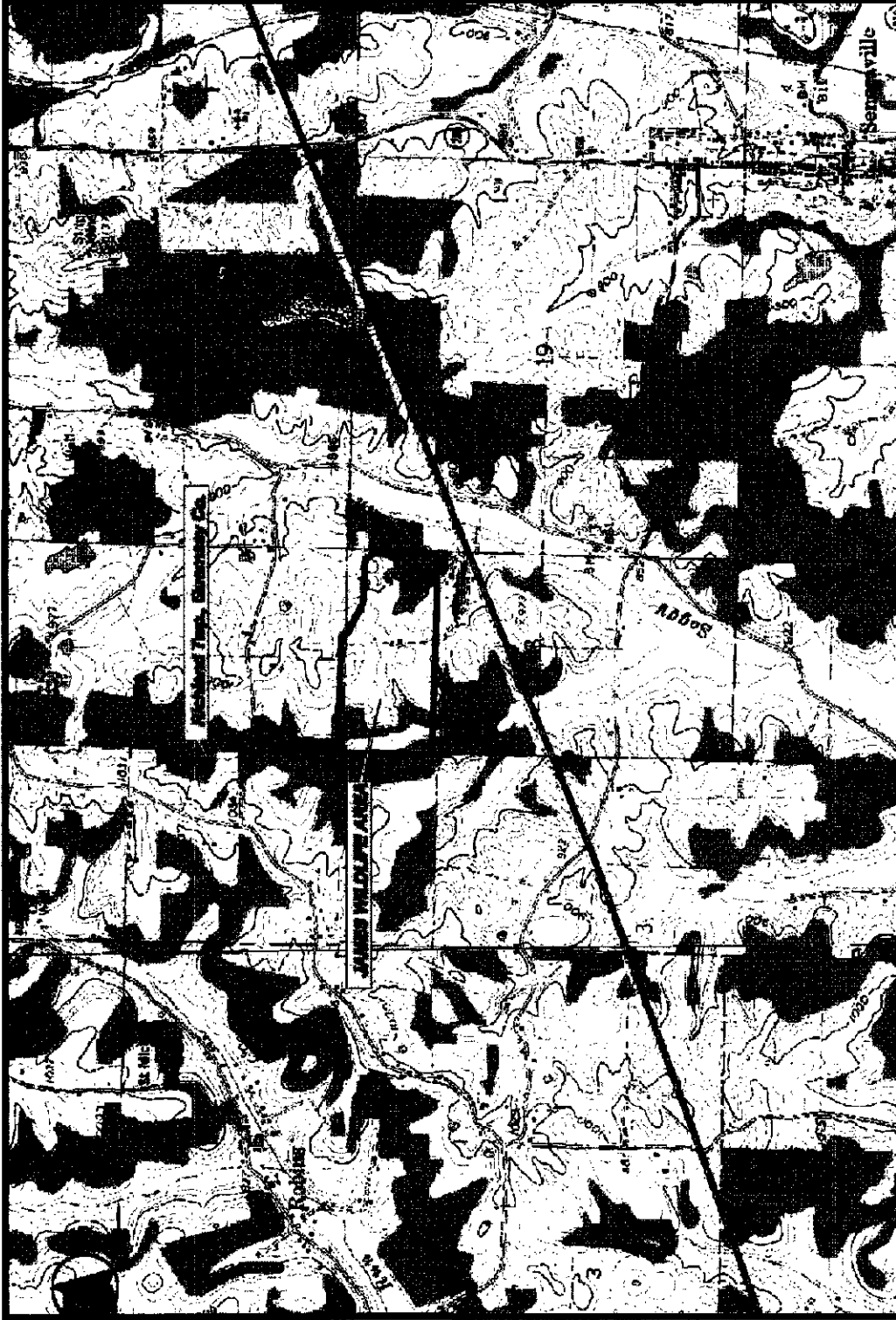


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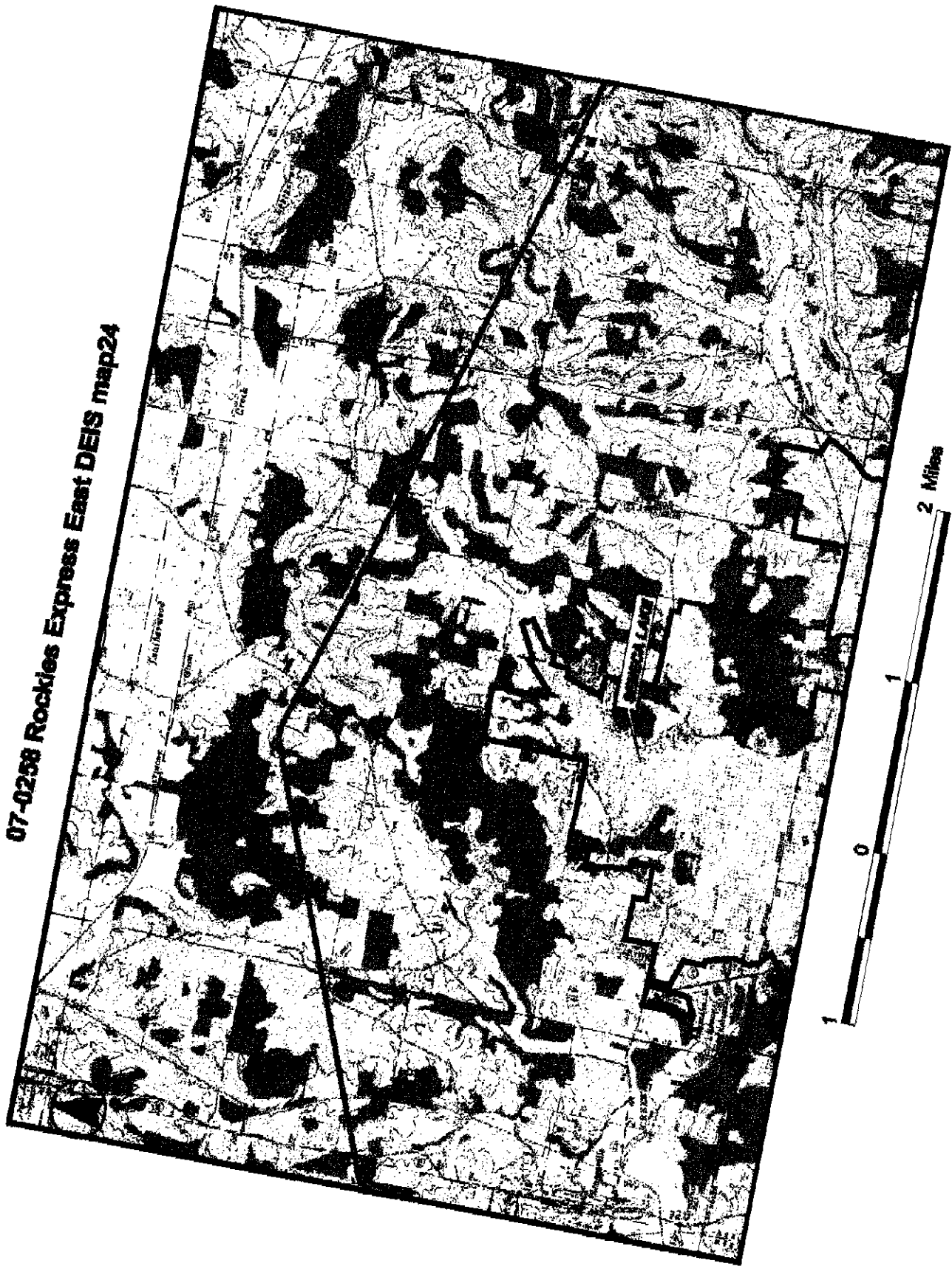


07-0258 Rockles Express East DEIS map23



0.5 0 0.5 1 Miles

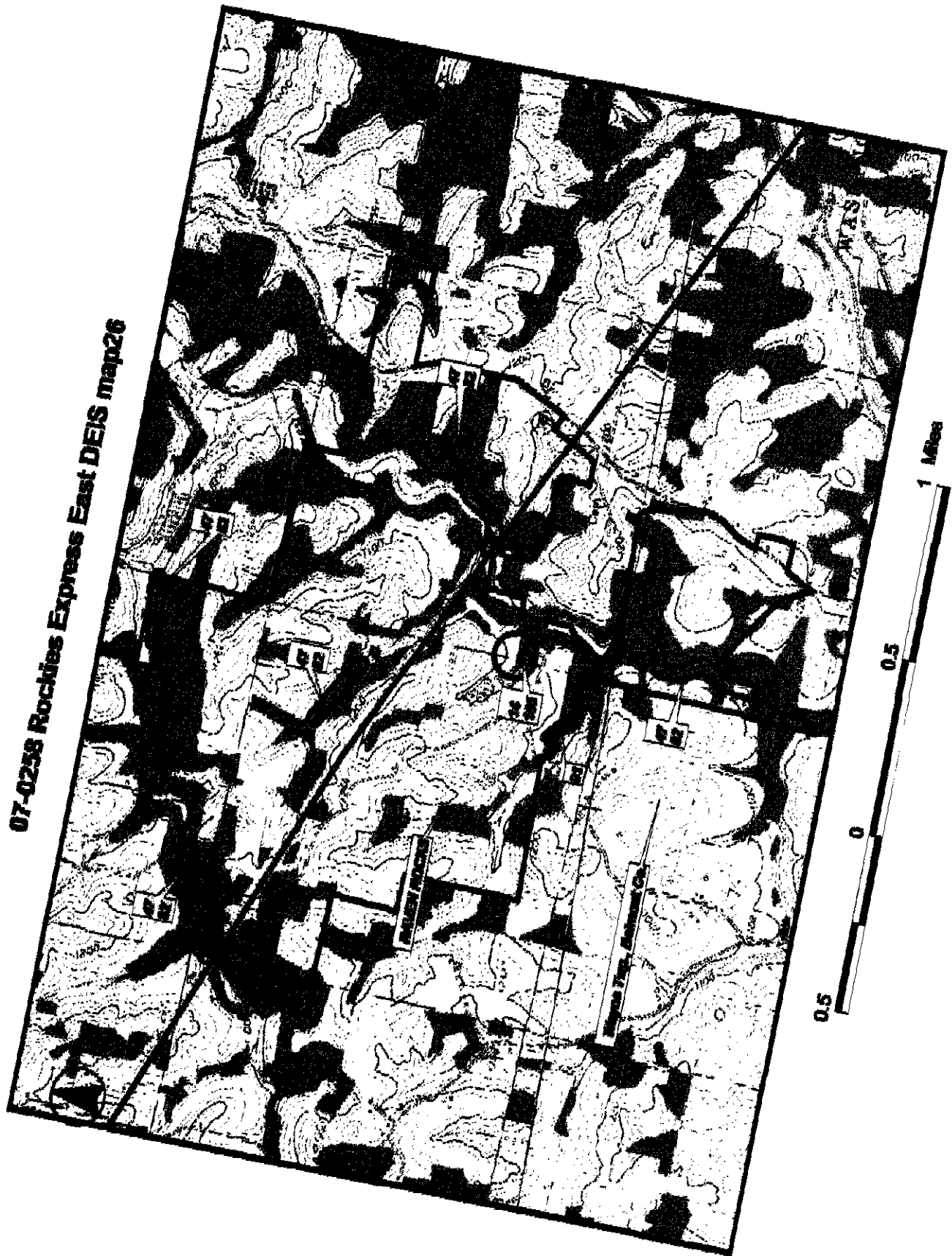
07-0258 Rockies Express East DEIS map24



07-0258 Rockies Express East DEIS map25



07-0258 Rockies Express East DEIS map26



07-0258 Rockdes Express East DEIS map27

