Illinois
Department of
Natural Resources
One Natural Resources Way • Springfield, Illinois 62702-1271
http://dnr.state.il.us
Rod R. Blagojevich, Governor

October 1, 2003

Corey Wilcox
Staff Scientist
CH2M HILL, Inc.
135 South 84th Street
Milwaukee, Wisconsin 53214

RE: *ANR WestLeg Looping Pipeline Project*
Nippersink Creek Tributary - McHenry County, Illinois
Threatened and Endangered Species Issues - Incidental Take Authorization

Dear Mr. Wilcox:

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) the CH2M HILL/ANR Pipeline authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) in McHenry County, Illinois is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction of a new 30-inch diameter underground natural gas pipeline across a tributary of Nippersink Creek in McHenry County, Illinois.

Please have an authorized CH2M HILL/ANR Pipeline Official(s) sign the last page of both copies of the Authorization and Implementing Agreement and return **both** copies to my the attention. Upon receipt, I will have the agreements signed and return one (1) fully executed copy to you for your official records. This authorization shall be effective once signed by the Department.

Thank you for your cooperation and assistance during the incidental take preparation and review process. Please do not hesitate to contact our office at (217)785-8774 with any questions or comments you may have regarding this authorization agreement.

Sincerely,

Joseph A. Kath
Endangered Species Project Manager
IDNR-Office of Resource Conservation

Enclosures

Printed on recycled and recyclable stock

Illinois
Department of
Natural Resources
One Natural Resources Way • Springfield, Illinois 62702-1271
http://dnr.state.il.us
Rod R. Blagojevich, Governor

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) CH2M HILL's (ANR Pipeline: WestLeg Pipeline Project) authorization for the incidental take of the State threatened slippershell mussel (*Alasmidonta viridis*) at stream crossing(s) along the pipeline route (as described/shown in the conservation plan received by the Department on July 1, 2003) in McHenry County, Illinois is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction of a new 30-inch diameter underground natural gas pipeline across a tributary of Nippersink Creek in McHenry County, Illinois.

Procedural History

CH2M HILL, Inc., acting as environmental consultant for ANR Pipeline - an El Paso Company (ANR) prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and CH2M HILL's request for authorization for incidental take of slippershell mussels were received by the Illinois Department of Natural Resources (Department) on July 1, 2003. Public notice of CH2M HILL's request for authorization of incidental take of slippershell mussels was published in the Edwardsville Intelligencer (Official State newspaper) and the Woodstock Independent (McHenry County) on July 30, 2003, as well as on August 12, and August 19, 2003. Public comments on CH2M HILL's conservation plan were accepted by the Department until September 18, 2003. No comments were received by the public during the period of July 30 through September 18, 2003.

Compliance with the Endangered Species Protection Act

The Illinois Endangered Species Protection Act includes six criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criteria are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

> The stated and apparent purpose of this proposed action is to construct a new 30-inch diameter underground natural gas pipeline (ANR Pipeline-an El Paso Company) to transport natural gas to the Calpine Riverside Energy Center. The ANR pipeline route will cross a tributary of Nippersink Creek in McHenry County, Illinois. This tributary potentially contains habitat for freshwater mussels, including State listed species. In the course of these construction activities, CH2M HILL will relocate all observed mussels (listed or non-listed species) disturbed by construction, hence a technical "taking" of these species. Such taking is not the purpose of the activities proposed by CH2M HILL/ANR Pipeline, but is incidental to the carrying out of a lawful activity.

Printed on recycled and recyclable stock

2. The parties to the conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking.

The conservation plan prepared by CH2M HILL and received by the Department on July 1, 2003 stated that freshwater mussel surveys, and subsequent relocations, would be conducted prior to any pipeline construction and prior to October 15, 2003 while water temperatures are at or above 50 degrees Fahrenheit. All mussels observed (listed or non-listed species) are to be relocated in order to minimize impacts. Mussel surveys will be conducted using standard survey techniques including searching by feel to methodically cover the area to be disturbed by the project (viewing boxes, wading in shallow water, SCUBA in deeper water-if applicable). All mussels found will be identified to species. Mussels will be relocated into areas of suitable habitat, in the same stream, preferably upstream of the construction site. Specifically, the transplant site will be close to the collection area and have similar to better water quality and substrate. CH2M HILL states that a "qualified biologist will be on site during surveys to oversee/administer the mussel survey protocol" outlined in their conservation plan. CH2M HILL will provide the Department with a report detailing the results of all mussel surveys and relocation efforts within 60 days of completing all surveys/relocations. In summary, mussel surveys and related relocations will occur only after Department authorization and prior to any construction activities.

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

In an official correspondence to the Department dated June 26, 2003, CH2M HILL, on behalf of ANR Pipeline, verified that adequate funding exists to support and implement all (mitigation) activities described in the official Conservation Plan. The ANR WestLeg Pipeline project is regulated, and ultimately authorized, by the Federal Energy Regulatory Commission (FERC). Under FERC rules, any and all natural resource commitments made by CH2M HILL (on behalf of ANR Pipeline) are binding and must be adhered to. Failure to meet such commitments allows FERC to deny and/or revoke authorization.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species or threatened species in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

Slippershells have been found in at least 36 locations in 11 counties in Illinois since 1990. Thirty-four (34) of those 36 locations have been confirmed since 1997. With the precautions and mitigation measures that will be instituted as part of this project, potential losses of slippershells will be minimized and will not reduce the likelihood of survival or recovery of the species in Illinois.

Construction and operation of the ANR WestLeg Pipeline project in McHenry County, Illinois will not reduce the likelihood of the survival of state-listed threatened or endangered mussels in Illinois. It should be noted that the freshwater mussel fauna of the Fox River and its tributaries in Illinois and Wisconsin were surveyed by Department staff during the summers of 1997-2001. A total of 3,585 live individuals comprised of 23 species were collected from 96 sampling stations.

Of this total, 60 spike mussels and 31 slippershell mussels were collected. Nippersink Creek and the North branch of Nippersink Creek are arguably among the best mussel streams in the Fox River basin in terms of species richness and abundance (IDNR/INHS-Schanzle, et. al, 2003).

The slippershell is listed as threatened in Illinois because its range and abundance have declined in recent decades. It is possible that additional individuals of the slippershell are present in the project area. Any that are overlooked during the relocation effort could be at risk of injury or death as a result of construction activities. The relocation of all mussels encountered will make it unlikely that a significant number of individuals will be exposed to threats related to the pipeline crossing project.

As stated in the April 1996 Technical Report (working draft) titled - "Measures to minimize harm to *Lampsilis higginsi* [federally endangered Higgins Eye mussel] caused by passage of commercial navigation vessels in the upper Mississippi River" [prepared by the U.S. Army Corps of Engineers-Waterways Experiment Station]: Relocation is one of several methods that can be used to protect freshwater mussels. Relocation can be used to recolonize areas where previous populations were extirpated, to remove mussels from proposed construction sites, to boost numbers of endangered species, or to protect against high densities of the zebra mussel *(Dreissena polymorpha)*. The survival of relocated mussels is closely linked to habitat quality.

Relocation sites should have the same conditions of substratum type and stability, and water velocity as the original habitat. Research from the federally endangered Higgins Eye mussel *(Lampsilis higginsi)* recovery team, under the guidance of the United States Fish and Wildlife Service, has determined that minimal mortality (<12%) and high recovery rate (>88%) were shown when aerial exposure of mussels was less than four (4) hours and when relocations were conducted in spring or autumn when air (12-18 C) and water temperature (15-23 C) were moderate.

CH2M HILL/ANR Pipeline has proposed a dry construction method for the crossing of the Nippersink Creek tributary. The dry crossing method will ensure that waterbody flow be maintained at all times. Continuous flow will be maintained by either fluming the waterbody or pumping the flow from upstream to downstream. If a flume is used, excavation equipment will work around the flume pipe during excavation. The pipe will be threaded under the flume pipe and the ditch will be backfilled while waterbody flows are maintained. If topographic conditions do not permit the pipe to be threaded under the flume, then the flow may be temporarily pumped while the flume is pulled to lower in the pipe. Flume pipes will be permanently removed as part of restoration. If the dam and pump method is used, all discharges will be directed through energy dissipaters. If the time between any phase of the work becomes extensive, or if it is determined that the pumps cannot handle the flow within the water bodies, the pumps will be disconnected and flumes will be installed to maintain the flow.

Following construction, all banks and shorelines will be properly restored and stabilized. A corridor centered on the pipeline(s) will be routinely maintained in a herbaceous state, up to 10 feet wide along the tributary.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and a CH2M HILL/ANR Pipeline signature(s) on this authorization indicates their commitment to performing those measures.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application:

Public notice of CH2M HILL's request for authorization of incidental take of slippershell mussels was published in the Edwardsville Intelligencer (Official State newspaper) and the Woodstock Independent (McHenry County) on July 30, 2003, as well as on August 12, and August 19, 2003. Public comments on CH2M HILL's conservation plan were accepted by the Department until September 18, 2003. No comments were received by the public during the period of July 30 through September 18, 2003.

Authorization

It is the determination of the Department that the measures to be implemented by CH2M HILL/ANR Pipeline at the Nippersink Creek tributary site would adequately minimize and mitigate for the anticipated taking (relocation) of a small number of slippershell mussels due to the construction of a new 30-inch diameter underground natural gas pipeline. Further, it is our opinion that the take (relocation) authorized herein would not diminish the likelihood of the survival of the slippershell mussel in the wild within the State of Illinois, the biotic community of which the species is a part or the habitat essential to the species' existence in Illinois.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], this authorization is issued subject to the following additional terms and conditions:

1. This authorization is effective upon signature by the Department and shall remain in effect for a period of five (5) years after completion of the pipeline project across the Nippersink Creek tributary (McHenry County, Illinois), unless terminated as pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. Freshwater mussel surveys shall be conducted prior to any pipeline construction activities in the area(s) of direct impact, as well as the immediate downstream reaches (100 feet downstream). All mussels observed (listed or non-listed species) are to be relocated in order to minimize impacts. Mussel surveys will be conducted using standard survey techniques including searching by feel to methodically cover the area to be disturbed by the project (viewing boxes, wading in shallow water, SCUBA in deeper water-if applicable). All mussels found will be identified to species. Mussels shall be relocated into areas of suitable habitat, in the same stream, preferably

upstream of the construction site. Specifically, the transplant site will be close to the collection area and have similar to better water quality and substrate. CH2M HILL shall provide the Department with a report detailing the results of all mussel surveys and relocation efforts within 60 days of completing all surveys/relocations.

3. **If, and only if,** slippershell *(Alasmidonta virdis)* mussels and/or any other Federal or State endangered or threatened mussels are removed and relocated at the Nippersink Creek tributary pipeline crossing, CH2M HILL/ANR Pipeline, either solely and/or through a qualified environmental consultant(s), shall perform (or cause to be performed) surveys of the Nippersink Creek tributary crossing (75 foot wide workspace). The purpose of these surveys is to determine if these listed species have recolonized areas directly impacted by the pipeline crossing. These surveys shall be conducted at the following intervals:

Two (2) years after completion of the Nippersink Creek tributary crossing, and at five (5) years after completion of the Nippersink Creek tributary crossing. CH2M HILL/ANR Pipeline, either solely or through its environmental consultant, shall provide a copy of these survey reports to the Department within 60 days of survey completion. For example, if the pipeline crossing of the Nippersink Creek tributary is completed in 2003, these surveys shall be conducted in 2005 and 2008. Freshwater mussels located within the 75 foot wide workspace shall be identified to species and enumerated and the length of each mussel shall be measured to the nearest millimeter. Handling of mussels shall be in compliance with any and all conditions and/or protocols included in the state and/or federal authorizations for this work. A report on the species, numbers and sizes of mussels found shall be provided to the Department within 60 days of the completion of each survey. Each report shall also include a qualitative evaluation of the habitat for freshwater mussels being provided within the 75 foot wide workspace and the manner in which that habitat has changed since the previous survey.

4. All mussels encountered within the State of Illinois during this project shall be subject to the general U.S. Fish and Wildlife Service handling protocol for determining presence/absence of species as found in "Section H" of the attached Federal Fish and Wildlife document.

5. The effective period of this authorization may be altered by mutual agreement between CH2M HILL/ANR Pipeline and the Department.

6. This authorization may be revoked pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80] if the Department finds that CH2M HILL/ANR Pipeline has failed to comply with any of these terms and conditions or has been responsible for the relocation of slippershell mussels beyond that which is incidental to the construction of a new 30-inch diameter underground natural gas pipeline crossing a tributary of Nippersink Creek in McHenry County, Illinois.

7. The CH2M HILL/ANR Pipeline Official identified below is authorized to execute this agreement. Execution by CH2M HILL's/ANR Pipeline's Official(s) indicates acceptance of all terms and conditions described in this agreement.

For the IL. Department of Natural Resources

Brian D. Anderson, Director
Office of Resource Conservation

11-6-03
Date Signed

For CH2M HILL/ANR Pipeline

Farrah C Lowe
Signature

Farrah C. Lowe, Senior Environmental Scientist
Please print name and official title

03 November 03
Date Signed