



March 22, 2007

Mr. Dave DeCaro  
Entrix  
10 Corporate Circle, Ste. 300  
New Castle, De 19720

RE: PLUS review – PLUS 2007-02-07; Eastern Shore Natural Gas 2009 Expansion

Dear Mr. DeCaro:

Thank you for meeting with State agency planners on March 7, 2007 to discuss the proposed plans for the 2009 natural gas expansion project to be located in several areas of Sussex County.

The Eastern Shore Natural Gas Company (ESNG) plans to install 76.5 miles pipeline during the period from November 2008 through November 2009. In Delaware, that installation would consist of three segments:

- 1) 3.5 miles of 10-inch line along Delaware Route 18 from the Maryland Line toward Bridgeville;
- 2) 10.5 miles of 10-inch line along US Route 13 from a point south of Bridgeville to a point south of Laurel; and
- 3) 11.8 miles of 6-inch line along US Route 113 from the Maryland Line to a point north of Millsboro.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property.

We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

The following are a complete list of comments received by State agencies:

**Office of State Planning Coordination – Contact: Bryan Hall 739-3090**

The Office of State Planning and Coordination extends its thanks to the applicant for allowing the opportunity to comment on the proposed improvements to their natural gas transmission system. The proposal is one that this office recognizes as a needed improvement to address the growing demand for this product and a necessary improvement to address overall customer service to the region. This office has no objection to the proposal; however, it encourages the applicant to work with the various state, county and local jurisdictions to address their varying concerns and requirements. If the applicant has any additional questions or requires additional assistance from this office, please call.

**Division of Historical and Cultural Affairs – Contact: Alice Guerrant 739-5685**

This project requires a federal permit from the Federal Energy Regulatory Commission, and will be reviewed in the DHCA office under Sec. 106 of the National Historic Preservation Act of 1966, as amended. The DHCA is already in consultation with ESNG concerning this project.

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

- 1) ESNG has already contacted the DeIDOT Utilities Engineer, and will be applying to the South District office for permits as needed. DeIDOT appreciates their cooperation in that regard.
- 2) The proposed expansion has the potential to affect three DeIDOT capital projects, which are listed below. For each of these projects, DeIDOT asks that ESNG coordinate with the project managers to ensure that the respective projects are developed efficiently and with minimum disruption to the public.
  - a) US Route 113 North-South Study – Monroe C. Hite, III, (302) 760-2120
  - b) Laurel Intersection Improvements #22-124-04 (Intersections of US Route 13/ Sussex Road 462, US Route 13/ Delaware Route 24, US

Route 13/ Sussex Road 466, and US Route 13/ US Route 9) – Thomas Banez, (302) 760-2363

- c) Seaford Intersection Improvements #24-124-01 (Intersections of US Route 13/ Delaware Route 20, US Route 13/ Sussex Road 535, US Route 13/ Delaware Route 20, and US Route 13/ Sussex Road 534) – Sonya LaGrand, (302) 760-2340.

**The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071**

**Wetlands**

Since this project will cross numerous wetlands and streams, some impacts are likely. All stream and ditch crossings will need to be reviewed by the Wetlands Section to determine the type of authorization needed as well as the methodology to be used in the crossings. Eastern Shore Natural Gas should send the Wetlands Section a preliminary map and discussion of the method of crossings and a request for this determination.

In addition, individual 404 permits and certain Nationwide Permits from the U.S. Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting.

**Water Resource Protection Areas**

The Water Supply Section has reviewed the above referenced PLUS project and determined that it does fall partially within both wellhead protection areas and excellent ground-water recharge areas. Water Supply Section does not consider natural gas to be a likely contaminant source to ground water.

**Drainage**

The conceptual pipeline alignment traversed the following tax ditch organizations.

Segment 4:

- Brights Branch Tax Ditch
- Bucks Branch Tax Ditch
- Bridgeville Branch Tax Ditch

Segment 5:

- Priestly Tax Ditch
- Middleford Tax Ditch
- Nanticoke Acres Tax Ditch
- Mt. Zion Tax Ditch

Segment 6:

- Pepper Creek Tax Ditch
- Herring Branch Tax Ditch
- Puncheon Tax Ditch
- Sandy Branch Tax Ditch

Please contact the Drainage Program when a detailed alignment is available. The individual tax ditches within these organizations have established rights-of-way. With a more definitive alignment, the Drainage Program will be able to give details of which individual tax ditches within the tax ditch organizations will be affected.

For questions or clarifications, please contact Jim Sullivan at 739-9921.

### **Rare Species**

Please see attached letter from the Division of Fish and Wildlife

### **Underground Storage Tanks**

There are no LUST site(s) located near the proposed project. However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel with nitrile rubber gaskets in the contaminated areas.

**State Fire Marshal's Office – Contact: Duane Fox 856-5298**

The DE State Fire Marshal's Office has the responsibility to review all commercial and residential subdivisions for compliance with the DE State Fire Prevention Regulations. This Agency's approvals are based on the DE State Fire Prevention Regulations only.

*The DE State Fire Marshal's Office has no objection to this project.*

Prior to formal submittal for erecting any associated building or structure or placement of any bulk fuel storage, preliminary meetings with fire protection specialists are encouraged. Please call for appointment. Applications and brochures can be downloaded from our website: [www.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

This document is information only and does not constitute any type of approval from the Delaware State Fire Marshal's Office.

**Department of Agriculture - Contact: Scott Blaier 698-4500**

The Delaware Department of Agriculture has no objections to the proposed application for extending natural gas pipelines.

They would ask that all construction activities associated with pipe line installation have the least possible impact on agricultural activities. They especially ask the applicant to guard against damaging any crops located near or within the utility right of way.

In addition, the Department has over 100 ground-water monitoring wells in the state, many located within road right-of-ways. Therefore, as a precaution, the Department of Agriculture has sent the coordinates of those wells to Mr. David DeCaro of Entrix Environmental Consultants with the approximate location of the wells. If you believe you will impact one of these wells during construction, they ask that you contact Mrs. Laura Mensch (Hydrologist) of our office to positively locate the well in the field before construction (302) 698-4573. The well locations can also be viewed on the Department's interactive GIS website using the "Pesticides Map Profile".

<http://66.173.241.168/dda/index.html>

The Department of Agriculture also advises you to contact the Delaware Geological Survey (DGS) at (302) 831-3579, and the United States Geological Survey (USGS) at (302) 734-2506, as they also have a number of monitoring wells located throughout the state.

They also provided Mr. DeCaro with a link to download the locations all of the properties located in our Agricultural Lands Preservation Program.

<http://66.173.241.168/dda/downloads.html>

If you need temporary access or a utility easement on one of these properties, please contact the Department's Planning Section at (302) 698-4530. Please allow as much lead time as possible for the Department to review the plans, as approval may involve consideration during one of the Agricultural Lands Preservation Foundation's monthly meetings.

**Public Service Commission - Contact: Andrea Maucher 739-4247**

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

**Sussex County – Contact: Richard Kautz 855-7878**

No comment about the project. The site is to be entirely within the DeIDOT right of way and does not directly impact County services or properties.

The Sussex County Engineer Comments:

The proposed installation of natural gas lines along Route 13 in the towns of Dagsboro and Frankford could impact existing sanitary sewer lines operated by Sussex County. Contact Mr. Brad Hawkes, Director, Utility Construction Division, Sussex County Engineering Department at (302) 855-7717 for additional information.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP  
Director

CC: Sussex County

March 1, 2007

*(Request received February 2, 2007)*

David De Caro

ENTRIX, Inc.

10 Corporate Circle, Suite 300

New Castle, DE 19720

*RE: Eastern Shore Natural Gas linear corridor project in Sussex County, DE*

Dear Mr. De Caro:

Thank you for contacting the Natural Heritage and Endangered Species program about information on rare, threatened and endangered species, unique natural communities, and other significant natural resources as they relate to the above referenced project.

We have not surveyed the entire project area; therefore the information being provided is what is currently in our database. Our comments and recommendations are based on the project area as depicted in the maps sent with your request and we understand the area of disturbance to extend within the road right-of-way. We don't have rare species information for the project area that occurs in Maryland.

We request that no invasive species be used in the re-vegetation of disturbed areas. A list of species considered invasive in Delaware can be found on the DNHP web site, [www.dnrec.state.de.us/fw/nonnative%20plants03.pdf](http://www.dnrec.state.de.us/fw/nonnative%20plants03.pdf). We further recommend the use of native plant species and our botanist, Bill McAvoy, can recommend a list of plants that are suited to the hydrology and characteristics of the site. If your client is interested, Bill can be contacted at (302) 653-2880.

We further request that efforts be made to minimize tree removal, especially in areas where the project occurs adjacent to large forest blocks.

All Segments requiring crossings of wetlands or water bodies:

We recommend that horizontal directional drilling be utilized wherever feasible to reduce wetland and riparian impacts. We also recommend that a frac-out contingency plan be implemented prior to construction activities and it should consist of the following:

- 1) A provision to contain materials released,
- 2) A clean-up protocol, and
- 3) Arrangements for a staff member to watch the site at all times so that the operation can be shut down immediately in the event a frac-out occurs.

All Segments requiring work on, under, or in close proximity to existing bridges

Bridges will need to be surveyed for the presence of nesting migratory birds, disturbance of which is regulated by the federal Migratory Bird Treaty Act (MBTA). It is likely that one or more pairs of barn swallow (*Hirundo rustica*) and/or Eastern phoebe (*Sayornis phoebe*) nest under bridges which occur over water bodies within the project area. If a survey detects a substantial number of active nests, impacts should be avoided by performing construction activities from 1 August to 15 April. If construction cannot be performed in this time period, a deterrent such as mesh netting should be used to block access to nesting sites on the underside of the bridge. The material would need to be in place no later than 15 April, the underside of the bridge would need to be fully encapsulated, and the material should be left in place until construction begins.

Segment 4 (sheet 9 of 9):

Our database indicates the potential for the following rare species:

Scientific Name	Common Name	Taxon	State Rank	State Status	Global Rank	Federal Status
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	Bird	S1B		G5	
<i>Pseudotriton montanus</i>	mud salamander	Amphibian	S1		G5	

**State Rank:** S1- extremely rare within the state (typically 5 or fewer occurrences); S2- very rare within the state (6 to 20 occurrences); B - Breeding; N - Nonbreeding; SX-Extirpated or presumed extirpated from the state.

All historical locations and/or

potential habitat have been surveyed; SH- Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered; SE-Non-native in the state (introduced through human influence); not a part of the native flora or fauna.

**State Status:** E – endangered, i.e. designated by the Delaware Division of Fish and Wildlife as seriously threatened with extinction in the state;

**Global Rank:** G1 - imperiled globally because of extreme rarity (5 or fewer occurrences worldwide); G2 - imperiled globally because of great rarity (6 to 20 occurrences); G3 - either very rare and local throughout its range (21 to 100 occurrences) or found only locally in a restricted range; G4 - apparently secure globally but uncommon in parts of its range; G5 - secure on a global basis but may be uncommon locally; T\_ - variety or subspecies rank; Q – questionable taxonomy;

**Federal Status:** LE – endangered, i.e. designated by the U.S. Fish and Wildlife Service as being in danger of extinction throughout its range; LT – threatened, i.e. designated by USFWS as being likely to become endangered in the foreseeable future throughout all or a significant portion of its range; PS Candidate – Taxa for which the U.S. Fish and

Wildlife Service has on file enough substantial information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.

Neither of these species should be impacted by this portion of the project as they are unlikely to inhabit the road right-of-way in this particular area.

Segment 5: Sheet 1 of 3

The following species occur within Hearn's Pond and could occur downstream within Clear Brook as well:

<b>Scientific Name</b>	<b>Common Name</b>	<b>Taxon</b>	<b>State Rank</b>	<b>State Status</b>	<b>Global Rank</b>	<b>Federal Status</b>
<i>Enneacanthus chaetodon</i>	blackbanded sunfish	Fish	S2		G4	
<i>Notropis chalybaeus</i>	ironcolor shiner	Fish	S1		G4	
<i>Anodonta implicata</i>	alewife floater	Mussel	S1		G5	
<i>Elliptio fisheriana</i>	Northern lance	Mussel	S2		G4	

There are also numerous plant and animal species that occur downstream within the Clear Brook system. These species will likely not be impacted provided that sediment and erosion control plans are stringent and HDD is used for the stream crossing.

Because of the presence of these species, the portion of the project in the area of Hearn's Pond and Clear Brook lie within a State Natural Heritage Site. However, it does not lie within a Delaware National Estuarine Research Reserve. This is one of the criteria used to determine the presence of Critical Resource Waters. The final decision regarding Critical Resource Waters – if this is an issue – will be made by the U.S. Army Corps of Engineers (ACOE). The information above will aid the ACOE in their determination.

Segment 5: Sheet 2 of 3

The following species are associated with an artificial impoundment on the west side of Rt. 113, roughly 0.8 miles from the road:

<b>Scientific Name</b>	<b>Common Name</b>	<b>Taxon</b>	<b>State Rank</b>	<b>State Status</b>	<b>Global Rank</b>	<b>Federal Status</b>
<i>Anax longpipes</i>	comet darner	dragonfly	S1		G5	
<i>Celithemis monomelaena</i>	black spotted skimmer	dragonfly	S2		G5	
<i>Celithemis ornata</i>	faded pennant	dragonfly	S2		G5	

Efforts should be made to avoid sedimentary run-off from entering this impoundment system. In addition, vegetation removal should be minimized so that adequate upland buffers are still intact around the impoundments.

Segment 5: Sheet 3 of 3

This segment traverses Records Pond, a publicly-owned, State-managed pond. There are rare species associated with this pond system and they are listed in the table below. It is important that this pond not be impacted directly by construction activities or indirectly by sedimentation or other run-off generated by construction activities. This is a site where HDD should be used. If the pond has to be drawn down for any reason, please contact Cathy Martin, Fisheries Biologist, at 653-2887 to ensure this will not impact sampling efforts or fisheries activities. Activities should be avoided during the spawning season, which occurs approximately April 15<sup>th</sup> to June 30<sup>th</sup>, to protect recreationally important sunfish.

The following rare species occur within the Records Pond system:

Scientific Name	Common Name	Taxon	State Rank	State Status	Global Rank	Federal Status
<i>Enneacanthus chaetodon</i>	blackbanded sunfish	Fish	S2		G4	
<i>Notropis chalybaeus</i>	ironcolor shiner	Fish	S1		G4	
<i>Anodonta implicata</i>	alewife floater	Mussel	S1		G5	
<i>Elliptio fisheriana</i>	Northern lance	Mussel	S2		G4	
<i>Celithemis monomelaena</i>	black spotted skimmer	Insect	S2		G5	
<i>Eleocharis equisetoides</i>	horse-tail spike-rush	Plant	S2		G4	
<i>Juncus pelocarpus</i>	brown-fruited nut-rush	Plant	S2		G5	
<i>Rhynchospora inundata</i>	drowned beak rush	Plant	S1		G3G4	
<i>Utricularia juncea</i>	Southern bladderwort	Plant	S2		G5	
<i>Taxodium distichum</i>	Bald cypress swamp forest	Community	S2		G5	

Bald cypress communities are especially important in terms of defining Delaware's natural heritage as it is a southern species at the extreme northern limit of its range. It is important to preserve species that are at the edge of their range because they are adapted to living in a different environment than those in the center. This helps maintain the genetic diversity of the species. There are Bald Cypress communities both upstream and downstream from your project location. However, there is not a documented community within the limits of disturbance as defined by the road right-of-way. On the eastern portion of Records Pond there is a community within roughly 375ft of the roadway on the north side of the Pond. Stringent sediment and erosion control will be necessary as this community is sensitive to water quality changes.

#### *State Natural Heritage Site*

Because of the presence of these species, the portion of the project in the area of Records Pond lies within a State Natural Heritage Site. However, it does not lie within a Delaware National Estuarine Research Reserve. This is one of the criteria used to determine the presence of Critical Resource Waters. The final decision regarding Critical Resource Waters – if this is an issue – will be made by the U.S. Army Corps of Engineers (ACOE). The information above will aid the ACOE in their determination.

#### *State Resource Area*

The area of Records Pond is also within a State Resource Area. State Resource Area lands include any open lands characterized by great natural scenic beauty, or whose existing openness, natural condition or present state of use, if retained, would maintain important recreational areas and wildlife habitat, and enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources, including environmentally sensitive areas. Please contact Eileen Butler, Natural Areas Program, at (302) 739-9235 to discuss your project.

Segment 6-Sheet 1 of 3:

**Betts Pond**

The following rare species occur within the Betts Pond system:

<b>Scientific Name</b>	<b>Common Name</b>	<b>Taxon</b>	<b>State Rank</b>	<b>State Status</b>	<b>Global Rank</b>	<b>Federal Status</b>
<i>Enneacanthus chaetodon</i>	blackbanded sunfish	Fish	S2		G4	
<i>Notropis chalybaeus</i>	ironcolor shiner	Fish	S1		G4	
<i>Panicum hemitomon</i>	maidencane	Plant	S2		G5	

This is a site where HDD should be used. If the pond has to be drawn down for any reason, we recommend that the pond owner be contacted. To protect spawning fish, construction activities should be avoided during the spawning season, which occurs approximately April 15<sup>th</sup> to June 30<sup>th</sup>. Rare species should not be impacted provided stringent sediment and erosion control measures are used.

**Iron Branch**

*Bald Cypress*

According to our GIS database, there is an extensive area of Bald Cypress which occurs along Iron Branch and it extends in close proximity to the roadway. This state-rare species should be identified, delineated and direct impacts avoided. HDD should be used to protect the delicate balance of this community which could be upset by sedimentary inputs.

**Wharton Branch to Dagsboro Segment**

Several rare plant species occur between Wharton Branch and the town of Dagsboro, however, these plants occur within a power line cut and should be far enough removed from the road right-of-way that they will not be impacted. If the project area extends beyond the road right-of-way, then these species could be directly impacted.

*State Natural Heritage Site*

Because of the presence of rare species, the portion of the project in the area of Betts Pond and within Iron Branch lies within a State Natural Heritage Site. However, it does not lie within a Delaware National Estuarine Research Reserve. This is one of the criteria used to determine the presence of Critical Resource Waters. The final decision regarding Critical Resource Waters – if this is an issue – will be made by the U.S. Army Corps of Engineers (ACOE). The information above will aid the ACOE in their determination.

Segment 6-Sheet 2 of 3:

A review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities along this section that would be affected by project activities.

*State Resource Area*

There is a small area designated as a State Resource Area that is less than 300ft from the roadway just south of Rt. 406. State Resource Area lands include any open lands characterized by great natural scenic beauty, or whose existing openness, natural condition or present state of use, if retained, would maintain important recreational areas and wildlife habitat, and enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources, including environmentally sensitive areas. Please contact Eileen Butler, Natural Areas Program, at (302) 739-9235 to discuss your project.

Segment 6 to Delaware/Maryland State-line-Sheet 3 of 3:

A review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities along this section that would be affected by project activities.

We are continually updating records on Delaware's rare, threatened and endangered species, unique natural communities and other significant natural resources. If the start of the project is delayed more than a year past the date of this letter, please contact us again for the latest information. If you have any questions, please contact me at (302) 653-2883 ext. 126.

Sincerely,

Edna J. Stetzar  
Biologist/Environmental Review Coordinator

**INVOICE - PAYMENT DUE**

**Note: Due to salary increases that went into effect July 1, 2006, our hourly rate has increased to \$35.00/hour for a minimum of one hour**

It is our policy to charge a fee for this environmental review service. This letter constitutes an invoice for \$140.00 (\$35.00/hour for 4 hours). Please make your check payable to "Delaware Division of Fish and Wildlife" and submit to:

DE Division of Fish and Wildlife  
89 Kings Hwy.  
Dover, DE 19901  
ATTN: Carla Cassell-Carter

**In order for us to properly process your payment, you must reference "ENTRIX 2007 ESNG Sussex Co." on your check.**

cc: Carla Cassell-Carter, Fish and Wildlife Coordination/Accounting; Code to 9892  
Eileen Butler, Natural Areas Program, Division of Parks and Recreation, DNREC