

Quinn-Willingham, Laura

From: DEP NATLANDS [NATLANDS@dep.state.nj.us]
Sent: Thursday, June 28, 2012 3:55 PM
To: Quinn-Willingham, Laura
Subject: Natural Heritage Data Request - Bell Bend Nuclear Power Plant
Attachments: nhp_feb_21_2012_revisions.pdf; 12-4007571-1580.pdf; 2007_03_gissitefaqs.pdf; foulrift.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Yellow Category

Dear Ms. Quinn-Willingham:

The response to your Natural Heritage Data Request is attached.

Larry Miller
Natural Heritage Program

Format of Natural Heritage Data Reports as of February 21, 2012

Starting on February 21, 2012, the format of the Natural Heritage data reports and letters will change. The Department is adopting changes to the endangered animal species list and the nongame wildlife list to be published in the New Jersey Register on February 21, 2012. Concurrent with the adoption of the amended lists, the Department will update its Landscape Mapping from Version 2.1 to Version 3.1. The updates to these maps include a methodology change, the addition of new species occurrence records and removal of occurrence data prior to 1980, updated Land Use/Land Cover mapping and the changes to the endangered and threatened wildlife lists.

The format of the reports from the Natural Heritage Database used for rare plant species and ecological communities will not change.

Information concerning rare wildlife species and wildlife habitat will no longer appear in the body of the Heritage response letter, but instead will consist of a series of attached reports appended after the letter. The online version of Landscape 3.1 can be accessed at:

<http://www.nj.gov/dep/gis/geoweb splash.htm>

Landscape Version 3.1 extends the **Species Based Patch** protocol first developed for Version 3.0 in the Highlands Region to the entire state. The Landscape Project Species Based Patches combine documented wildlife locations with NJDEP aerial photo-based 2007 Land Use/Land Cover (LULC) in order to delineate imperiled and special concern species habitat within New Jersey. An updated **Vernal Wildlife Habitat** layer is included with Landscape Version 3.1. In accordance with N.J.A.C. 7:7A-1.4, the term "vernal habitat" includes a vernal pool - or the area of ponding - plus any freshwater wetlands adjacent to the vernal pool. Potential vernal habitat is also included in this data set. **Stream Habitat for Freshwater Mussels** is represented in a separate data layer. The Department (DEP) maintains a Stream Network data layer that is a subset of the USGS 1:24,000 high-resolution National Hydrography Dataset (NHD). In Version 3.1 of the Landscape Project, stream and water body centerlines from the NHD Streams 2002 data layer are used to represent freshwater mussel habitat. Detailed metadata and descriptions of the different data layers and data fields are available online at the above web location.

The Natural Heritage data reports also include information about **Other Animals** that is maintained by the Endangered and Nongame Species Program (ENSP) in the Biotics database. Other Animals include species that are tracked by ENSP, but that are not included in the Landscape Project Mapping.

More detailed information will now be included in the Heritage reports. Wildlife reports based on the Species Based Patch layer will now include the **Landscape Rank (Rank)** for each species, as well as the Feature Type. Landscape Rank 2 is assigned to animal

species of special concern, Rank 3 is assigned to State threatened animal species, Rank 4 is for State endangered animal species, while Rank 5 is assigned to wildlife species listed as endangered or threatened pursuant to the Federal Endangered Species Act of 1973.

Feature Label (or Feature Type) is a label assigned to each occurrence that describes the occurrence type (e.g., nest, den, dead on road, etc.). Note that the regulatory status of a species may differ based on the Feature Label assigned to the record.

The Species Based Patch reports will continue to summarize the information for the different species and feature types documented at each area of interest. However, the reports for Vernal Habitat, Freshwater Mussel Stream Habitat and Other Animals will list each individual record selected during the search of the Landscape Version 3.1 and Other Animal data sets. The **Link ID** (for Freshwater Mussels) or **Vernal Pool Habitat ID** will be listed. These are the unique ID values that are used to link individual Landscape polygons with associated species look-up tables. Additionally, the Freshwater Mussel Stream Habitat reports will include the **Last Observed** year (MX_YEAR) along with the **Count** (CNT_SOA). The Species Occurrence Area count refers to the number of species occurrence areas that intersect the stream habitat patch.



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Parks and Forestry

Mail Code 501-04

ONLM - Natural Heritage Program

P.O. Box 420

Trenton, NJ 08625-0420

Tel. #609-984-1339

Fax. #609-984-1427

CITRIS CHRISTIE

Governor

KIM GUADAGNO

Lt. Governor

BOB MARTIN

Commissioner

June 28, 2012

Laura Quinn-Willingham
U.S. Nuclear Regulatory Commission
MS-T-6C32
Washington, DC 20555

Re: Bell Bend Nuclear Power Plant - Alternate Site: Martins Creek, NJ

Dear Ms. Quinn-Willingham:

Thank you for your data request regarding rare species information for the above referenced project site in White Township, Warren County.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.1) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the topographic map(s) submitted with the Request for Data into our Geographic Information System. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1 and 2 (attached) to determine if any priority sites are located on or in the vicinity of the site.

A list of rare plant species and ecological communities that have been documented from Warren County can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html>. If suitable habitat is present at the project site, the species in that list have potential to be present.

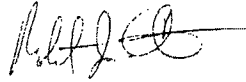
Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf.

If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive NJ-GeoWeb website at the following URL, <http://www.state.nj.us/dep/gis/geoweb splash.htm> or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from <http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf>.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert J. Cartica', with a long horizontal flourish extending to the right.

Robert J. Cartica
Administrator

c: NHP File No. 12-4007571-1580

Mail Code 501-04
Department of Environmental Protection
Division of Parks and Forestry
Office of Natural Lands Management
PO Box 420 Trenton, New Jersey 08625-0420
(609) 984-1339 FAX (609) 984-1427

Invoice

Invoice

DATE	INVOICE #
June 28, 2012	1580

BILL TO
U.S. Nuclear Regulatory Commission MS-T-6C32 Washington, DC 20555

Make check payable to <i>Office of Natural Lands Management</i> and forward with a copy of this statement to Mail Code 501-04 Office of Natural Lands Management PO Box 420 Trenton, New Jersey 08625-0420

		P.O. NO.	TERMS	PROJECT
QUANTITY (hrs.)	DESCRIPTION		RATE (per hr.)	AMOUNT
1	Charge for Natural Heritage Database search for rare species and ecological communities locational Information. Project 12-4007571-1580		\$70.00	\$70.00
Laura Quinn-Willingham Bell Bend Nuclear Power Plant - Alternate Site: Martins Creek, NJ			Total	\$70.00

Table 1: On Site Data Request Search Results (7 Possible Reports)

Rare Plants/Ecological Communities Possibly On Site:	Yes
Rare Plants/Ecological Communities On Site/Immediate Vicinity:	Yes
Natural Heritage Priority Sites On Site:	No
Landscape 3.1 Species Based Patches On Site:	Yes
Landscape 3.1 Vernal Pool Habitat On Site:	No
Landscape 3.1 Stream/Mussel Habitat On Site:	No
Other Animals Tracked by ENSP On Site:	No

<p align="center">Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database</p>

Scientific Name	Common Name	Federal Protection	State Protection	Regional Status	Grank	Srank	Identified	Last Observed	Location
<i>Vascular Plants</i>									
Sporobolus compositus var. compositus	Long-leaf Rush-grass			HL	G5T5	S2	Y - Yes	1993-09-22	ALONG R.R. WITHIN 1 MI. SW OF FOUL RIFT.
Total number of records: 1									

**On or In the Immediate Vicinity of the
Project Site Based on Search of the
Natural Heritage Database: Rare Plant Species and
Ecological Communities Currently Recorded in the New
Jersey Natural Heritage Database**

Scientific Name	Common Name	Federal Protection	State Protection	Regional Status	Grank	Srank	Identified	Last Observed	Location
<i>Vascular Plants</i>									
Stachys tenuifolia	Smooth Hedge-nettle			HL	G5	S3	Y - Yes	1948-07-20	3 miles Southwest of Belvidere.
Taxus canadensis	American Yew			HL	G5	S2	Y - Yes	1917-04-01	BETWEEN WOOD AND RAILROAD, ALONG DELAWARE RIVER, ABOUT 1/2 MILE ENE OF ROXBURG STATION.

Total number of records: 2

<p>Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.1 Species Based Patches</p>

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
<i>Aves</i>								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Eastern Meadowlark	Sturnella magna	Breeding Sighting	2	NA	Special Concern	G5	S3B,S3N
	Grasshopper Sparrow	Ammodramus savannarum	Breeding Sighting	3	NA	State Threatened	G5	S2B,S3N
	Savannah Sparrow	Passerculus sandwichensis	Breeding Sighting	3	NA	State Threatened	G5	S2B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G5	S3B

Table 2: Vicinity Data Request Search Results (6 possible reports)

Rare Plants/Ecological Communities within the Vicinity:	Yes
Natural Heritage Priority Sites within the Vicinity:	Yes
Landscape 3.1 Species Based Patches within the Vicinity:	Yes
Landscape 3.1 Vernal Pool Habitat within the Vicinity:	No
Landscape 3.1 Stream/Mussel Habitat within the Vicinity:	Yes
Other Animals Tracked by ENSP within the Vicinity:	No

<p align="center">Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database</p>

Scientific Name	Common Name	Federal Protection	State Protection	Regional Status	Grank	Srank	Identified	Last Observed	Location
<i>Vascular Plants</i>									
Sporobolus compositus var. compositus	Long-leaf Rush-grass			HL	G5T5	S2	Y - Yes	1993-09-22	ALONG R.R. WITHIN 1 MI. SW OF FOUL RIFT.
Stachys tenuifolia	Smooth Hedge-nettle			HL	G5	S3	Y - Yes	1948-07-20	3 miles Southwest of Belvidere.
Taxus canadensis	American Yew			HL	G5	S2	Y - Yes	1917-04-01	BETWEEN WOOD AND RAILROAD, ALONG DELAWARE RIVER, ABOUT 1/2 MILE ENE OF ROXBURG STATION.

Total number of records: 3

<p align="center">Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.1 Species Based Patches</p>

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
<i>Aves</i>								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Barred Owl	Strix varia	Non-breeding Sighting	3	NA	State Threatened	G5	S2B,S2N
	Brown Thrasher	Toxostoma rufum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Nest	2	NA	Special Concern	G5	S3B,S4N
	Eastern Meadowlark	Sturnella magna	Breeding Sighting	2	NA	Special Concern	G5	S3B,S3N
	Grasshopper Sparrow	Ammodramus savannarum	Breeding Sighting	3	NA	State Threatened	G5	S2B,S3N
	Hooded Warbler	Wilsonia citrina	Breeding Sighting	2	NA	Special Concern	G5	S3B
	Savannah Sparrow	Passerculus sandwichensis	Breeding Sighting	3	NA	State Threatened	G5	S2B,S4N
	Veery	Catharus fuscescens	Breeding Sighting	2	NA	Special Concern	G5	S3B
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G5	S3B
<i>Mammalia</i>								
	Bobcat	Lynx rufus	Live Individual Sighting	4	NA	State Endangered	G5	S1

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank
<i>Reptilia</i>	Bobcat	Lynx rufus	On Road	4	NA	State Endangered	G5	S1
	Eastern Box Turtle	Terrapene carolina carolina	Occupied Habitat	2	NA	Special Concern	G5T5	S3
	Wood Turtle	Glyptemys insculpta	Occupied Habitat	3	NA	State Threatened	G4	S2

**Rare Wildlife Species or Wildlife Habitat
In the Immediate Vicinity of the
Project Site Based on Search of
Landscape Project 3.1 Stream Habitat File**

Link ID	Common Name	Scientific Name	Feature Type	Rank	Federal Protection	State Protection	Grank	Srank	Last Observed	Count
122832	Yellow Lampmussel	Lampsilis cariosa	Occupied Habitat	3	NA	State Threatened	G3G4	S2	1997	1

Total number of records: 1

Frequently Asked Questions About The Natural Heritage Priority Sites GIS File

What are Natural Heritage Priority Sites?

Through its Natural Heritage Database, the Office of Natural Lands Management (ONLM) identifies critically important areas to conserve New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. The database provides detailed information on rare species and ecological communities to planners, developers, and conservation agencies for use in resource management, environmental impact assessment, and both public and private land protection efforts.

Using the database, ONLM has identified 343 Natural Heritage Priority Sites, representing some of the best remaining habitat for rare species and rare ecological communities in the state. Although the primary focus of these sites is rare plant species and ecological communities, the DEP Endangered and Nongame Species Program also provided key information and assisted with the delineation of a number of the sites that encompass significant habitats for rare animals. These areas should be considered to be top priorities for the preservation of biological diversity in New Jersey. If these sites become degraded or destroyed, we may lose some of the unique components of our natural heritage.

How are Natural Heritage Priority Sites used in conservation of biological diversity?

Natural Heritage Priority Site maps are used by individuals and agencies concerned with the protection and management of land. The maps have been used by municipalities preparing natural resource inventories; public and private conservation organizations preparing open space acquisition goals; land developers and consultants identifying environmentally sensitive lands; and public and private landowners developing land management plans. However, the coverage was not developed for regulatory purposes, and should not be used as a substitute for the on-site surveys and Natural Heritage Database searches required by regulatory agencies.

Natural Heritage Priority Sites contain some of the best and most viable occurrences of rare plant species and ecological communities, but they do not cover all known habitat for these elements or most rare animal species in New Jersey. Most of the state has not been surveyed for rare species and ecological communities. If information is needed on whether or not endangered or threatened species have been documented from a

particular area, a Natural Heritage Database search can be requested by contacting the Office of Natural Lands Management.

What do the boundaries of the sites contain?

The boundaries of each Natural Heritage Priority Site are drawn to encompass critical habitat for the rare species or ecological communities. Often the boundaries extend to include additional buffer lands that should be managed to protect this critical habitat. A justification for the boundary is provided for each site.

Boundaries of site polygons may overlap. Site polygons may also be nested so that one site may be found entirely within a larger site. When viewing the shape file, a larger site may sometimes obscure a smaller site within it. Such confusion can be eliminated by highlighting the area of interest and checking the attribute table to reveal all sites within the selected area.

How was the GIS coverage developed?

The coverage was originally developed as lines on USGS topographic paper maps and subsequently edited to fit on either 1995/97 color infrared aerial imagery, 1991 black and white aerial imagery or scanned USGS 1:24,000 topographic maps as an ArcView shape file (NJ State Plane Coordinate System, NAD83). Within the Highlands Region the coverage was developed using the NJDEP 2002 Land use/Land cover: Highlands Study Area (DRAFT) coverage, and then subsequently edited using 2002 High Resolution Orthophotography, as well as scanned USGS 1:24,000 topographic maps, as references.

What attributes are included with the shape file?

(Note: Text fields in the attribute table are truncated at 254 characters. Therefore, some text may be deleted from the attribute table of some of the sites. The complete text for all the site records is contained in the **Prisites.rtf** file that is included in the Prisites Winzip distribution file.)

Identifying attributes – The Sitecode and Sitename fields are assigned by the Office of Natural Lands Management to track each site by a unique alphanumeric code and name. The Version field indicates the year and month of the current version of the Natural Heritage Priority Sites coverage.

Locational attributes – Information about where each

site is located can be found in the County, Quadname (US Geological Survey 7.5 minute topographic quadrangle map) and Municipality fields. More detailed information can be gathered by overlaying county and municipal coverages that are available from NJ DEP.

Descriptive attributes – A description of the site can be found in the Descriptio(n) field, while the Boundjust field contains a written justification for the site boundaries.

Significance attributes – The relative significance of each site is determined by assigning a biodiversity significance rank (Biodivrank). Justification for the rank can be found in the BiodivComm(ents) field. The Siteclass field indicates whether the site is categorized as a macrosite or a standard site. Standard sites are smaller in size (usually less than 3200 acres in size), while macrosites tend to be larger (usually greater than 3200 acres in size). It is not unusual to find several standard sites entirely contained within the boundaries of a macrosite.

What is the biodiversity significance rank and how is it used?

Each site is ranked according to its significance for biological diversity using a scale developed by The Nature Conservancy, the network of Natural Heritage Programs and the New Jersey Natural Heritage Program. The ranks can be used to distinguish between sites that are of global significance for conservation of biological diversity vs. those that are of state significance. The global biodiversity significance ranks range from B1 to B5. Within the Highlands Region the global biodiversity significance rank has been combined with a state biodiversity significance rank which provides information about the significance of the site on a state level. The state biodiversity significance ranks for sites in the Highlands Region range from V1 to V5. Therefore, all sites have been assigned a global biodiversity rank (B rank), but not all sites have been assigned a state biodiversity rank (V rank). The specific definitions for each rank are as follows:

B1 - Outstanding significance on a global level, generally the “last of the least” in the world, such as the only known occurrence of any element (species or ecological community), the best or an excellent occurrence of an element ranked critically imperiled globally, or a concentration (4+) of good or excellent occurrences of elements that are imperiled or critically imperiled globally. The site should be viable and defensible for the elements or ecological processes contained.

B2 - Very high significance on a global level, such as the

most outstanding occurrence of any ecological community. Also includes areas containing other occurrences of elements that are critically imperiled globally, a good or excellent occurrence of an element that is imperiled globally, an excellent occurrence of an element that is rare globally, or a concentration (4+) of good occurrences of globally rare elements or viable occurrences of globally imperiled elements.

B3 - High significance on a global level, such as any other viable occurrence of an element that is globally imperiled, a good occurrence of a globally rare element, an excellent occurrence of any ecological community, or a concentration (4+) of good or excellent occurrences of elements that are critically imperiled in the State.

B4 - Moderate significance on a global level, such as a viable occurrence of a globally rare element, a good occurrence of any ecological community, a good or excellent occurrence or only viable state occurrence of an element that is critically imperiled in the State, an excellent occurrence of an element that is imperiled in the State, or a concentration (4+) of good occurrences of elements that are imperiled in the State or excellent occurrences of elements that are rare in the State.

B5 - Of general biodiversity interest.

V1 - Outstanding significance on a state level. Only known occurrence in the state for an element or Site with an excellent occurrence or the best occurrence in the state for an element ranked critically imperiled in the state or a concentration (4+) of good or excellent occurrences of elements that are imperiled or critically imperiled in the state.

V2 - Very high significance on a state level. Includes sites containing other occurrences of elements that are critically imperiled in the state or a concentration (4+) of other occurrences of state imperiled elements and/or good or excellent occurrences of state rare elements.

V3 - High significance on a state level. Includes sites containing the best occurrence in the state or an excellent occurrence of a state imperiled element or multiple (2+) other occurrences for state imperiled elements and/or excellent, good or moderate quality occurrences of state rare elements.

V4 - Moderate significance on a state level. Includes sites containing the best occurrence in the state or an excellent occurrence of a state rare element or any site with other occurrences of a state imperiled element or multiple (2+) other occurrences of state rare elements.

V5 - Any site with any other occurrence of a state rare element.

How can I obtain Natural Heritage Priority Site maps for an area of interest to me?

Natural Heritage Priority Site hard copy maps can be obtained by submitting a written request accompanied by a check or money order made payable to the Office of Natural Lands Management at the following address:

Office of Natural Lands Management
P.O. Box 404
Trenton, NJ 08625-0404
Phone: 609-984-1339; Fax: 609-984-1427

Individual 8.5" X 11" maps are available at the following rate:

1 - 10 site maps & reports:	\$1.50/site
11 - 20 site maps & reports:	\$1.00/site
> 20 sites:	\$0.50/site

Digital GIS Coverage of Natural Heritage Priority Sites

A digital version of the ArcView GIS file of Natural Heritage Priority Sites is also available. The 2007 version of Natural Heritage Priority Sites will be sent as an email attachment upon request. There is no charge for emailing the GIS data.

How often are the maps updated?

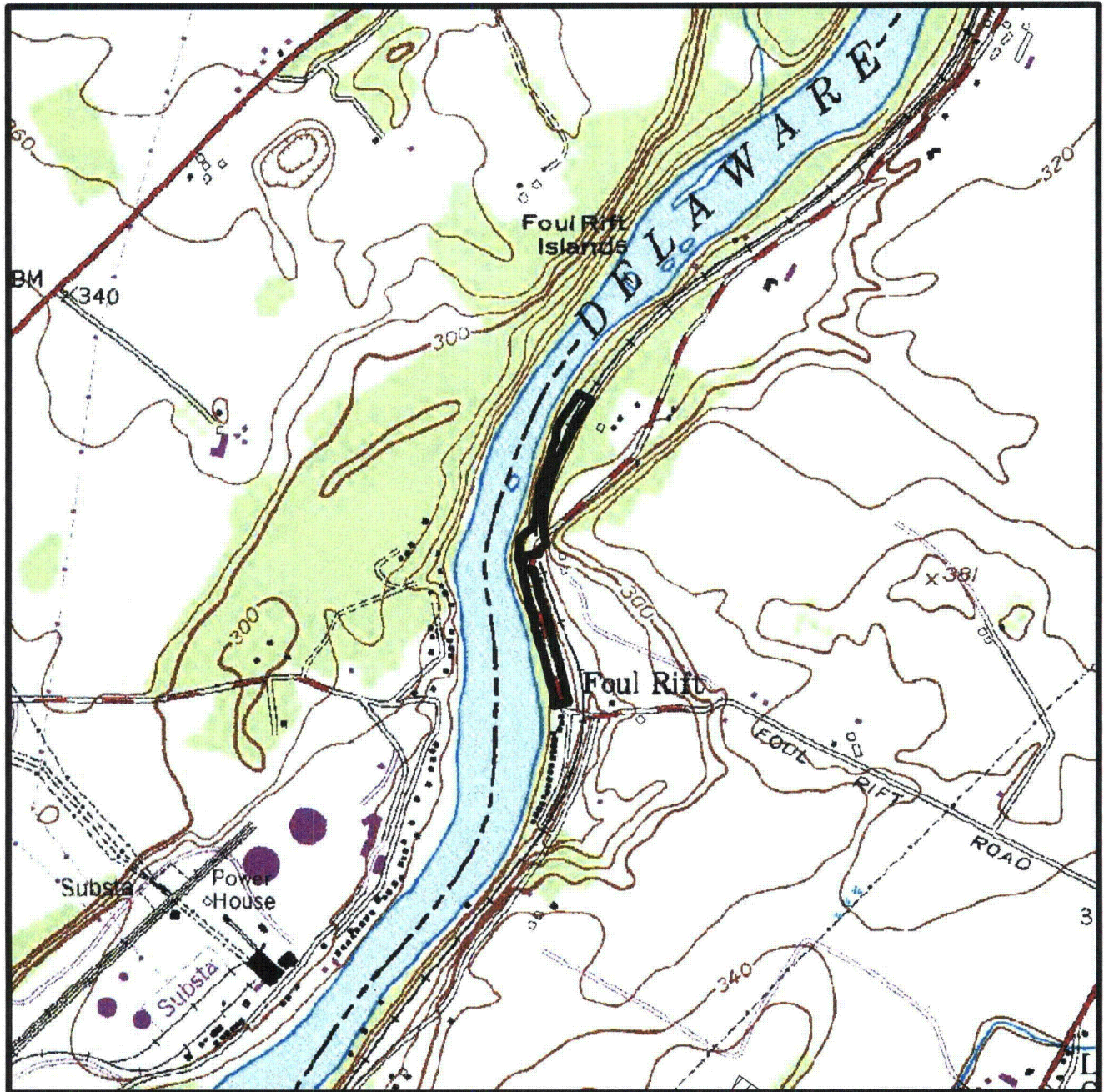
The Natural Heritage Priority Site information is constantly being updated in the Natural Heritage Database. A new edition of the maps will be made available after significant revisions or additions to the Database.

May 17, 2007



NJ Department of Environmental Protection
Division of Parks and Forestry

Natural Lands Management



Natural Heritage Priority Site

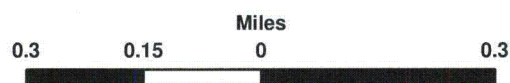
Foul Rift

Warren County



NJ Department of Environmental Protection
Division of Parks and Forestry

Natural Lands Management



Priority Sites
 Public Land

4

Natural Heritage Priority Site **Foul Rift**

Locational Information

Quad Name: Belvidere
County: Warren
Municipality: White Twp

Description of Site

Shore of the Delaware River, and the wooded, rocky, limestone woods above the River.

Boundary Justification

Boundary encompasses critical habitat and buffer lands.

Biodiversity Rank ***B5V4***

This site contains an occurrence of a plant species that is imperiled in the state.