| From: | Puco ContactOPSB |
| :--- | :--- |
| To: | Puco Docketing |
| Subject: | public comment 16-2443-EL-BGN, 18-0090-EL-BGA, 20-0033-EL-BGA, 21-0182-EL-BGA |
| Date: | Friday, April 15, 2022 12:47:57 PM |
| Attachments: | EA404.pdf |
|  | Gurnesey Power Station-CA final.pdf |

From: Leatra Harper [wewantcleanwater@gmail.com](mailto:wewantcleanwater@gmail.com)
Sent: Tuesday, April 12, 2022 2:13 PM
To: Butler, Matthew [matthew.butler@puco.ohio.gov](mailto:matthew.butler@puco.ohio.gov)
Subject: Caithness Energy Guernsey Power Station

Dear Mr. Butler,
I would like to bring this subject to your attention once again. We are questioning the lack of setback distances that has allowed the Guernsey Power Station to build upon existing property owners, causing a great amount of stress and health damages. The laydown yard is approximately 60 feet from the property line of Kevin Young. He and his wife are both suffering from serious breathing problems as a result of the continued dust that has been created, and especially, the toxic air and water pollution created from the injection for the "stabilization" of the underground coal mines. The permit attached states that the Guernsey Power Station is supposed to notify of any permit changes, which we request to know if they have notified any office of the problems that have occurred that entail flooding, air and water contamination, and public health effects of which they are aware.

Also, in another attached permit from the OEPA, we see that only grading is mentioned, and not the build-up of approximately 20 ft . for the laydown yard and 4 ft . for the road, putting the Youngs into a bowl that floods. The Youngs have suffered from geysers and sinkholes and pollution on their property. I will call you soon to follow-up on these complaints because we have no idea how further permit modifications or the permit to operate can be granted before a full review is made of all the problems created by the construction of this plant from the beginning. We believe that flooding is now being caused because of the ground alterations, injection and loss of water storage capabilities of the mines, and the fill that has been taken to the adjacent private property owned by Brent Ball. We believe that the Guernsey Power Station has no intention to remove the laydown yard and restore the wetlands, especially now that it looks like buildings are built upon it, and because of all the fill that was brought in to build up the laydown yard, it would be enormously expensive.

Per the second attachment entitled CA Final, it states, "Following completion of construction, equipment, matting, and any excess material will be removed from the wetland and the temporary impact areas will be restored to approximate pre-existing conditions." It also states, " Effect on water resources will be minimized through the use of best management practices, such as swamp mats, in order to minimize rutting and compaction associated with equipment vehicle access. Also, this document also states that impacts to streams are not permitted under this authorization, but it is apparent that Wills Creek has been impacted by water quality and quantity issues. This file was received through an OEPA records request which indicates that there are only temporary impacts to the wetlands, which certainly does not seem to be the case. If Caithness does intend to leave the laydown yard as-is without taking it down and restoring the wetlands, misrepresentations during the permitting and construction process need to be investigated.

Thanks very much for your attention to this matter. I will call you soon, or you can call me at 419-450-7042 at your convenience.
Thanks,
Lea Harper
FreshWater Accountability Project www.FWAP.org

## MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Findings for the Above-Referenced Standard Individual Permit Application

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, as applicable, Public Interest Review, and Statement of Findings for the subject application.
1.0 Introduction and Overview: Information about the proposal subject to one or more of the United States (U.S.) Army Corps of Engineers Corps (Corps) regulatory authorities is provided in Section 1, detailed evaluation of the activity is found in Sections 2 through 11 and findings are documented in Section 12 of this memorandum. Further, summary information about the activity including administrative history of actions taken during project evaluation is attached (ORM2 Summary) and incorporated in this memorandum.

### 1.1 Applicant: Guernsey Power Station, LLC 3698 Paddock Road Plainfield, Indiana 46168

1.2 Activity location: The proposed project would be located west of Interstate 77 (I77) and approximately four (4) miles south of Interstate 70 (I-70), in Valley Township, Guernsey County, Ohio (39.93390, -81.53588). Refer to Figure 1 below for details on the proposed project location. Waters of the U.S. within the proposed project area flow into Wills Creek, a tributary of the Muskingum River, a navigable water of the U.S.

1.3 Description of activity requiring permit: The applicant has requested a Department of the Army (DA) authorization for the discharge of dredged and/or fill material into 6.53 acres of three wetlands, Wetlands W-C31, W-C52, and WC101, in association with construction of the Guernsey Power Station Interconnect Facility and its ancillary features. The applicant proposes to develop, build, and operate the Guernsey Power Station, a proposed 1,650megawatt (MW) natural gas-fired combined cycle electric generating facility, referred to as the generating facility (facility site), and an utility-owned substation with interconnecting transmission and distribution lines, referred to as the interconnect facility.

The Guernsey Power Station facility would include combustion turbine generators (CTGs), heat recovery stream generators (HRSGs), stream turbine generators (STGs), air-cooled condenser (ACC), transformers, a facility switchyard, and other ancillary equipment. The Guernsey Power Station facility would consist of three units of single shaft power train configuration, each using both a gas and steam turbine. The generating facility would use state-of-the-art combined cycle technology and a dry air cooling system to reduce air emissions and to minimize water used during the cooling process.

Natural gas would be provided by the Tallgrass Energy Partners Rockies Express Pipeline (Rockies Express Pipeline) that is located within a right-of-way (ROW) on site. Electricity generated from the proposed facility would be transmitted to the Pennsylvania-New Jersey-Maryland (PJM) power grid via an American Electric Power (AEP) 765-kilovolt (kV) electric transmission line that is also located in a ROW on site. Additional electrical interconnection equipment would be located on a separate adjacent parcel south of the existing $765-\mathrm{kV}$ electric transmission line (interconnection property; Refer to Figure 1 above). The overall footprint of the project would include approximately 187 acres.

Construction of the Guernsey Power Station Interconnect Facility would result in the permanent discharge of dredged and/or fill material into 3.07 acres of wetlands (Wetlands W-C31, W-C52, and W-C101) and the temporary discharge of dredged and/or fill material into 3.46 acres of wetlands (Wetlands W-C31, WC52, and W-C101), as described in Tables 1 and 2 below. The temporary discharge of fill material into wetlands would result from the use of timber matting/swamp maps associated with construction activities. The use of temporary timber matting and swamp mats has been determined to have the effect of fill ( 33 CFR 323.2(e)) and; therefore, is considered a regulated discharge of fill material into wetlands. Construction of the generating facility would not involve a discharge of dredged and/or fill material into waters of the U.S. All components of the generating facility would be constructed in uplands.

Table 1. Proposed Permanent Discharge of Dredged and/or Fill material into waters of the U.S. associated with the Guernsey Power Station Project, Guernsey County, Ohio

| Aquatic Resource | Wetland Classification | Estimated amount of aquatic resource in review area | Proposed Fill | Fill Type |
| :---: | :---: | :---: | :---: | :---: |
| W-C31 | Emergent; Category Modified 2 | 8.37 acres | 0.012 acre | Fill - Transmission Poles |
|  |  |  | 0.004 acre | Fill - Distribution Poles |
| W-C52 | Emergent; Category 2 | 4.85 acres | 0.002 acre | Fill - Distribution Pole |
|  |  |  | 0.28 acre | Fill - Substation |
|  | Forested; Category 2 | 20.63 acres | 0.004 acre | Fill - Distribution Poles |
|  |  |  | 2.77 acres | Fill - Substation |
| W-C101 | Emergent; Category Modified 2 | 0.10 acre | 0.002 acre | Fill - Distribution Pole |
| Total Proposed Permanent Discharge of Dredged and/or Fill Material into waters of the U.S. |  |  | 3.07 acres |  |

Table 2. Proposed Temporary Discharge of Dredged and/or Fill material into waters of the U.S. associated with the Guernsey Power Station Project, Guernsey County, Ohio.

| Aquatic <br> Resource | Wetland Classification | Estimated amount <br> of aquatic <br> resource in <br> review area | Proposed <br> Temporary Fill | Temporary Fill Type |
| :---: | :--- | :---: | :---: | :--- |
| W-C31 | Emergent; Category Modified 2 | 8.37 acres | 1.45 acres | Fill - Access and <br> Work Space for Pole <br> Construction |
| W-C52 | Emergent; Category 2 | 2.06 acres | 0.15 acre | Fill - Access and <br> Work Space for Pole <br> Construction and <br> Substation |
|  | Forested; Category 2 Shrub; Category 2 | 2.79 acres | 0.7 acre | Fill - Access and <br> Work Space for Pole <br> Construction |
|  |  | 20.63 acres | 1.13 acres | Fill - Access and <br> Work Space for Pole <br> Construction and <br> Substation |
| W-C101 | Emergent; Category | 0.10 acre | 0.03 acre | Fill - Work Space for <br> Pole Construction |
| Total Proposed Temporary Discharge of Dredged and/or Fill <br> Material into waters of the U.S. | 3.46 acres |  |  |  |

The proposed Guernsey Power Station requires the approval from the Ohio Power Siting Board (OPSB). On 27 December 2017, the applicant filed a preapplication notice with the OPSB. The applicant held a public information
meeting on 25 January 2017 to discuss the proposed project with interested person and landowners. The applicant filed an application with the OPSB on 16 March 2017. As part of the OPSB's procedural schedule, the applicant was required to hold local public hearings; local public hearings were held by the applicant on 15 August 2017 and 23 August 2017. On 5 October 2017, the OPSB issued an Opinion, Order and Certificate order approving the construction, operation and maintenance of the generating facility (No. 16-2443-EL-GBN).
1.3.1 Proposed avoidance and minimization measures: Approximately 52.99 acres of wetlands and 4,777 linear feet of perennial and ephemeral streams subject to regulation under Section 404 of the Clean Water Act are present within the proposed project area. According to the applicant, alternative plans were considered and are described in Section 5.0. Avoidance and minimization efforts were incorporated into the proposal to reduce the footprint of the proposed project. The proposed project has been designed to completely avoid the discharge of dredged and/or fill material into 4,777 linear feet of on-site perennial and ephemeral streams (100\%) and 46.46 acres of on-site wetland (94.2\%) wetlands. The applicant would be required to obtain stormwater permits and to implement stormwater protection plans as needed for site construction following the requirements of the National Pollutant Discharge Elimination System (NPDES) program. Based on the application, the applicant has applied for the required NPDES permit from the Ohio Environmental Protection Agency (OEPA). Please reference Section 6.7 (Subpart H) for additional minimization actions the applicant would implement to minimize adverse impacts to the aquatic environment.
1.3.2 Proposed compensatory mitigation: To compensate for the permanent discharge of dredged and/or fill material into waters of the U.S. associated with the proposed project, the applicant conceptually proposed to purchase in-lieu fee credits from a Federally-approved in-lieu fee program.
1.4 Existing conditions and any applicable project history: The project is located within the Trails Run-Wills Creek watershed (HUC 050400050207 of the Muskingum watershed). The site is adjacent to 1-77 and approximately four (4) miles south of I-70. Wills Creek, a tributary of the Muskingum River, transects the generating facility site and the interconnection property. The site is bounded to the west by a privately-owned railroad spur, to the north by Seneca Lane, and to the South by a sand and gravel operations. Within one (1) mile of the proposed site, approximately $45 \%$ of the land is forested or open space, $37 \%$ is agricultural, while the rest is residential, industrial, or commercial land. Additionally, there are six (6) parks or recreations areas (Seneca Lake) located within five (5) miles of the proposed facility.

A majority of the proposed site was used for agricultural practices including cattle grazing and crop cultivation (hay fields). Several structures, including two (2) residences accessed via Puritan Street, one (1) residence on Seneca Lane, and a storage facility, are located within the site. Additional residences located along Seneca Lane are within approximately 0.25 miles of the site. The three (3) residential structures and the storage facility within the proposed site are expected to be demolished as a result of the proposed project.

The project area sits at an elevation of approximately 800 feet according to the USGS 7.5 series Byesville, Ohio quadrangle. According to the NRCS Web Soil Survey, the project area contains 10 soil types: Gilpin silt loam (15 to 25 percent slopes), Genford silt loam ( 0 to 3 percent slopes); Genford silt loam ( 3 to 8 percent slopes), McGary silt loam ( 0 to 3 percent slopes); Mentor silt loam (2 to 8 percent slopes); Mentor silt loam ( 8 to 15 percent slopes); Mentor silt loam ( 15 to 25 percent slopes); Nolin silt loam ( 0 to 3 percent slopes); Sarahsville silty clay loam (frequently flooded); and Zipp silty clay (ponded).

The Corps issued a preliminary jurisdictional determination (PJD) on 23 October 2017 (LRH-2017-00244-MUS-Willis Creek). Approximately 4,777 linear feet of four (4) non-wetlands (Streams S-C100, S-C101, S-C38, and Jurisdictional Ditch C-1) and 55.99 acres of wetlands (Wetlands C27, C28, C29, C30, C31, C32, C33, C34, C35, C38, C40, C41, C42, C43, C45, C46, C100, C101, C102, C103, C104, C105, C52, and C55) are located within the PJD Boundary.

Wetland W-C31: Based on the Ohio Rapid Assessment Method (ORAM), Wetland W-C31 is a Modified Category 2 emergent wetland and is approximately 8.37 acres in size. The vegetation in Wetland-C31 is dominated by Juncus effuses, Phleum pretense, Juncus tenuis, and Carex frankii. Wetland W-C31 hydrology indicators include oxidized rhizospheres on living roots, drainage patterns, geomorphic positions, microtopgraphic relief, and the FAC-neutral test. Wetland-C31 soil exhibits a depleted matrix with redoximorphic concentrations starting at the soil surface.

Wetland W-C52: Based on the ORAM, Wetland C-C52 is a Modified Category 2 wetland and is comprised of emergent, scrub-shrub and forested communities. Wetland W-C52 is approximately 25.47 acres in size. The vegetation in WetlandC52 includes Quercus palustris, Fraxinus pennsylvanica, Acer saccharinum, Cornus amomum, Carex Vulpinoidea, Carex squarrose, Phalaris arundinacea, Dulichium arundinaceum, Lysmachia nummularia, Toxicodendron radicans, Solidago canaensis, Symphyotrichum pilosum, and Agrimonia parviflora. Wetland W-C52 hydrology indicators include drainage patterns, oxidized rhizospheres on living roots, drainage patterns, geomorphic positions,
microtopgraphic relief, and the FAC-neutral test. Wetland-C52 soil exhibits a depleted matrix with redoximorphic concentrations starting at the soil surface.

Wetland W-C101: Based on the ORAM, Wetland C-C101 is a modified Category 2 emergent wetland and is approximately 0.098 acre in size. The vegetation in Wetland-C101 is dominated by Persicaria hydropiper, Juncus effuses, Carex vulpinoidea, Lysimachia nummularia, and Ranunculus repens. Wetland W-C101 hydrology indicators include oxidized rhizospheres on living roots, geomorphic positions, and the FAC-neutral test. Wetland-C101 soil exhibits a depleted matrix with redoximorphic concentrations starting at the soil surface.
1.5 Permit Authority: Section 404 of the Clean Water Act (33 USC 1344).

### 2.0 Scope of review for National Environmental Policy Act (i.e. scope of analysis), Section 7 of the Endangered Species Act (i.e. action area), and Section 106 of the National Historic Preservation Act (i.e. permit area)

### 2.1 Determination of scope of analysis for National Environmental Policy Act (NEPA):

According to 33 Code of Federal Regulations (CFR) 325, Appendix B (7)(b)(2), the District Engineer is considered to have control and responsibility for portions of the project beyond the limits of Corps jurisdiction where the Federal involvement is sufficient to turn an essentially private action into a Federal action. These are projects where the environmental consequences of the larger project are essentially products of the Corps permit action. The following four factors are typically considered in determining whether sufficient "control and responsibility" exists. Under each of the four factors below, a discussion has been included to explain how these factors were considered in determining whether sufficient "cumulative Federal control and responsibility" exists over the subject project.
i. Whether or not the regulated activity comprises "merely a link" in a corridor type project. In this case, the commercial development activity is not a link in a corridor type project.
ii. Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity. Factors that influence the limits of our NEPA scope include upland areas outside the Corps jurisdiction that affect the location and configuration of the regulated activity and location of upland work in the immediate vicinity dictated by the regulated activity. Without the discharge of dredged and/or fill material into waters of the U.S., the construction of the electricity generation facility could not occur. As such, the entire project, including upland areas proposed to be affected by the electricity generation facility, is within the Corps' purview. Completion of the electricity generation facility cannot go forward as
proposed without the DA permit. It has been determined upland areas outside of the Corps jurisdiction affect the location and configuration of the regulated activity and location of upland work in the immediate vicinity is dictated by the regulated activity.
iii. The extent to which the entire project would be within the Corps jurisdiction. Approximately $30 \%$ of the project area is within the Corps' jurisdiction. The majority of the approximate 187 acre project area is located in uplands that do not contain waters of the U.S.
iv. The extent of cumulative Federal control and responsibility. Generally, the Corps' area of responsibility includes all waters of the U.S., as well as any additional areas of non-jurisdictional waters or uplands where the District Engineer determines there is adequate Federal control and responsibility to justify including those areas within the Corps' NEPA scope of analysis. The Corps' area of responsibility for purposes of our NEPA scope of analysis normally includes upland areas in the immediate vicinity of the waters of the U.S. where the regulated activity occurs. For this project, the activity requiring the DA permit, the discharge of dredged and/or fill material into wetlands, are essential components of the entire electricity generation facility project. There is no other Federal involvement (financing, assistance, direction, etc.) beyond the limits of the Corps' jurisdiction. It has been determined that the upland areas outside of the Corps' jurisdiction affect the location and configuration of the regulated activity and the location of upland work in the immediate vicinity is dictated by the regulated activity.

The scope of analysis includes the specific activity requiring a Department of the Army permit. Other portions of the entire project are included because the Corps does have sufficient control and responsibility to warrant federal review.

Final description of scope of analysis: The scope of analysis for this project includes the entire 187 acre electricity generation facility site including the waters and uplands affected as result of the project. The electricity generation facility could not be constructed without the discharge of dredged and/or fill material within waters of the U.S.
2.2 Determination of the "Corps action area" for Section 7 of the Endangered Species Act (ESA): The 5 December 1991 Corps of Engineers Civil Works Operations and Readiness division (CECW-OR) memorandum provided guidance on Endangered Species Act (ESA) scope and the situations where the Corps will expand its scope to include areas outside Corps jurisdiction.

The ESA review for this proposal included informal consultation between the Corps and the United States Fish and Wildlife Service (USFWS) on the effects the proposal may have on the species listed Section 10.1. The Corps has
chosen to address potential effects of proposed activities on eligible species both in and immediately adjacent to waters of the U.S., and in upland areas substantially removed from waters of the U.S., because of the overall extent of cumulative Federal control and responsibility, and because the federally endangered Indiana bat (Myotis sodalis) and federally threatened northern longeared bat (Myotis septentrionalis) use riparian and non-riparian areas interchangeably.

The "action area" for this proposal is all areas that would be affected, directly and/or indirectly, by the Federal action. The action area includes the entire footprint of the Guernsey Power Station site. Refer to Section 10.1 of this decision document for more information on Section 7 consultation.

### 2.3 Determination of permit area for Section 106 of the National Historic Preservation Act (NHPA):

The following three (3) tests must all be satisfied for an activity undertaken outside waters of the U.S. to be included within the permit area.
(a) The activity outside of waters of the U.S. would not occur but for the authorization of the work or structures within waters of the U.S. The discharge of dredged and/or fill material into waters of the U.S. is the minimum necessary to allow for the construction of the proposed electricity generation facility. Therefore, the proposed activities outside waters of the U.S. would not occur but for the authorization of the work within waters of the U.S.
(b) The activity outside of waters of the U.S. is not integrally related to the proposed work or structures to be authorized within waters of the U.S. Or conversely, the work or structures to be authorized within waters of the U.S. must be essential to the completeness of the overall project or program. The proposed activities outside waters of the U.S. for the construction of the proposed electricity generation facility are integrally related to and directly associated with the proposed discharge of dredged and/or fill material into waters of the U.S. The proposed discharges of dredged and/or fill material into waters of the U.S. are essential to the completeness of the overall electricity generation facility project.
(c) The activity outside waters of the U.S. is not directly associated (first order impact) with the proposed work or structures within waters of the U.S. The activity outside waters of the U.S. is directly associated with the proposed work within waters of the U.S.

The permit area includes those areas comprising waters of the United States that will be directly affected by the proposed work or structures, as well as activities
outside of waters of the U.S. because all three tests identified in 33 CFR 325, Appendix $\mathrm{C}(\mathrm{g})(1)$ have been met.

Final description of the permit area: The permit area includes the entire footprint of the Guernsey Power Station site. Refer to Section 10.3 of this decision document for more information on Section 106 consultation.

### 3.0 Purpose and Need

3.1 Purpose and need for the project as provided by the applicant and reviewed by the Corps: The applicant indicated the generating facility will help meet energy demands in light of recent and planned retirement of existing coal-fired generating assets of the PJM Electric Region, which includes the state of Ohio. According to the submitted information, over 30,000 MW of coal-fired generating assets have been retired since 2013 and approximately 7,000 MV coal-fired generating assets are proposed for retirement by 2020 , including several plants in Ohio. Therefore, the applicant's stated purpose and need is to provide a generating facility to help meet energy demands in southeastern Ohio, by providing additional base load and peaking capacity via the natural gas-fired combined cycle technology.
3.2 Basic project purpose, as determined by the Corps: The basic purpose is the fundamental, essential or irreducible purpose of the proposed project and is used by the Corps to determine whether the applicant's project is water dependent. The basic purpose of the proposed project is electricity generation.
3.3 Water dependency determination: The activity does not require access or proximity to or siting within a special aquatic site to fulfill its basic purpose. Therefore, the activity is not water dependent.
3.4 Overall project purpose, as determined by the Corps: The overall project purpose serves as the basis for the $404(\mathrm{~b})(1)$ alternatives analysis and is determined by further defining the basic purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall purpose of the project is to construct a natural gas-fired combined cycle electric generating facility to generate electricity for the regional and national grid in southeast Ohio.

### 4.0 Coordination

4.1 The results of coordinating the proposal on Public Notice (PN) are identified below, including a summary of issues raised, any applicant response and the Corps' evaluation of concerns.

Were comments received in response to the PN? Yes

| Table 1-Summary of Public Notice Comments |  |  |  |
| :--- | :---: | :---: | :--- |
| Agency and/or <br> Person providing <br> comments in <br> response to PN: | Date Received: | Applicant <br> replied: <br> Y/N | Comment/lssues Raised, Applicant's Response and <br> USACE Evaluation: |
| Miami Tribe of <br> Oklahoma | 5 December 2017 | N | Comment: The Miami Tribe commented that they do not <br> object to the proposed project. They requested to be <br> notified and consulted with if any human remains or <br> archaeological evidence is discovered during any phase <br> of the project. |
| Response: Any DA permit, if issued, will include the |  |  |  |

No other comments were received in response to the PN.
Were comments forwarded to the applicant for response? Yes
Was a public meeting and/or hearing requested and, if so, was one conducted?
No, no public hearing or meeting was requested.
Comments received in response to public notice: Refer to Section 4.1
4.2 Were additional issues raised by the Corps including any as a result of coordination with other Corps offices? Yes.
If yes, provide discussion including coordination of concerns with the applicant, applicant's response and Corps' evaluation of the response: Additional information regarding the applicant's site selection criteria and alternative analysis was required in order for the Corps to complete the alternative analysis evaluation under the NEPA and the Section 404(b)(1) Guidelines.
4.3 Were comments raised that do not require further discussion because they address activities and/or effects outside of the Corps' purview? No
5.0 Alternatives Analysis (33 CFR Part 325 Appendix B(7), 40 CFR 230.5(c) and 40 CFR 1502.14). An evaluation of alternatives is required under NEPA for all jurisdictional activities. An evaluation of alternatives is required under the Section 404(b) (1) Guidelines for projects that include the discharge of dredged or fill material. NEPA requires discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives; under the Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative.
5.1 Site selection/screening criteria: In order to be practicable, an alternative must be available, achieve the overall project purpose (as defined by the Corps), and be feasible when considering cost, logistics and existing technology.

Criteria for evaluating alternatives as evaluated and determined by the Corps:
Site selection criteria: A potential alternative that meets all identified criteria would be considered a practicable alternative. A site that fails one or more criteria would not be considered practicable.

| Issue | Measurement and/or constraint <br> Environmental Impacts <br> Avoid and minimize to the extent practicable. <br> The presence and configuration of aquatic <br> resources and tree clearing requirements are <br> site constraints. <br> Site Location/ Utility interconnection facilities <br> Constraints are: <br>  <br> Proximity to a natural gas pipeline with <br> sufficient and robust capacity and supply ${ }^{1}$ <br> Proximity to a 765 kilovolt ( kV ) electrical <br> transmission line of sufficient size and with <br> available capacity for the facility to <br> interconnect with the existing electrical grid ${ }^{2}$ |
| :--- | :--- |

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$\left.\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { Sufficient access to a major interstate or } \\ \text { railroad to provide delivery for major } \\ \text { equipment during construction }\end{array} \\ \hline \begin{array}{l}\text { Existing Zoning and Potential for Zoning } \\ \text { Change }\end{array} & \begin{array}{l}\text { Would the current zoning allow the intended } \\ \text { development? Is there a reasonable possibility } \\ \text { that the zoning could be changed to allow the } \\ \text { intended development? Zoning is a constraint. }\end{array} \\ \hline \text { Availability the parcel(s) available? }\end{array} \right\rvert\, \begin{array}{l}\text { Constraints are: } \\ \text { The core generating facility must be arranged } \\ \text { in a certain configuration to optimally function. }\end{array}\right\}$

1: Electrical gathering systems and Generating Facility switchyard- the generating equipment produces electricity at a low voltage ( 23 kV ), which then needs to be "stepped up" in order to allow interconnection to the regional electric transmission grid. The location where the electrical lines are consolidated and then transformed into a high voltage must be located proximate to the electrical interconnection and away from the emissions stacks of each unit to minimize extensive electrical lines across work space that could create a health and safety hazard as well as additional expense. Additional low-voltage electric distribution lines area also required to provide reliable station power and system operations. These distribution lines would be required to connect to the proposed utilityowned sub-station.
${ }^{2}$ : Utility Interconnection Facilities- From the generating facility switchyard, a small number of electric transmission lines must extend into the utility substation (collectively, the interconnection facilities) in order to guarantee effective system separation for reliability. The required size of the utility substation would reflect the voltage of the interconnection grid as well as a number of units associated
with the generating facility. The utility substation must be adjacent to the existing electric transmission line and would be connected via a tap line.
${ }^{3}$. The generating equipment and stack are the core of the generating facility and they must be arranged in a certain configuration in order to optimally function (Refer to Section 1.3 for components of the proposed generating facility). The combustion turbine generator and steam turbine generator are enclosed in a building that must be in alignment with the heat recovery system generator (which is where the waste of the combustion turbine is recovered and used to generate steam) and its stack. On the other end of each individual "train" of the generating equipment, the generated electricity output must connect into the electric transmission grid. Therefore, the configuration of each of the tree "trains" would be oriented in a line, with the electric interconnection point closest to the existing transmission line.

4: Each train has an associated air-cooled condenser, which is a large elevated bank of fans that allow required cooling to occur within minimal water use. Orientation of each air-cooled condenser must be proximate to its generating unit in order to optimize piping and connections.

### 5.2 Description of alternatives

5.2.1 No action alternative: The No Action Alternative (NAA) consist of actions the applicant can pursue which do not require Federal action in accordance with Section 404 of the Clean Water Act. Under the NAA, the Corps would deny the application for an individual Section 404 permit. As a result, the proposed electricity generation facility project would not be constructed and the potential impacts to the natural or human environment identified for the applicant's proposal would not occur. Under the NEPA, the NAA must be addressed and a permit cannot be issued by the Corps if such issuance would be contrary to the public interest and/or would not comply with the Section 404(b)(1) guidelines. The NAA would require avoidance of all impacts to waters of the U.S. within the proposed project area. Implementation of the NAA would not meet the purpose and need for this project.
5.2.2 Off-site alternatives: The applicant indicated key characteristics of southeast Ohio that make it a targeted area for the proposed project include the PJM market, which is an open market and, therefore, favorable to independent power producers, the abundance of natural gas from the Utica and Marcellus shale, and the presence of less congested high voltage power lines.

The applicant initially explored several sites that would meet the project purpose with considering site selection criteria. Potential development sites were initially screened to identify property sites that appeared to be of sufficient area to build the proposed project, avoided or minimized impacts to aquatic resources and other environmental factors, and met key siting criteria-site location relative to

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utility interconnection facilities and transportation needs, zoning, site availability, availability of water supply and sanitary sewer service utilities, and safety. The applicant explored three off-site alternatives:

Off-site alternative 1: This site is located north ofl-70 and south of U.S. Route 22 (Glenn Highway), west of the City of Cambridge, in Guernsey County, Ohio (Refer to Figure 1 below). The site was identified for consideration based on the proximity to natural gas, the presence of on-site high voltage electric transmission lines ( 765 kV ), and apparent size of 102 acres. The applicant's preliminary investigation determined that this potential site consists of eight (8) parcels, under ownership of six (6) different land landowners. Favorable site selection criteria of Alternative 1 included proximity of other industrial uses and the interstate (approximately two (2) miles from an I-70 exit), with minimal residential development in proximity, and no zoning constraints. While this site has no zoning constraints, it is located approximately 0.2 miles from an elementary school which was considered a sensitive receptor. The site had availability of water and sanitary sewer utility services.

The applicant's review of USFWS' National Wetland Inventory (NWI) mapping and aerial imagery interpretation indicated the site contained approximately 57 acres of aquatic resources, including approximately 10,613 linear feet of streams, and would require approximately 23.9 acres of tree clearing. Preliminary investigations indicated that potential archaeological sensitive areas could be encountered around the stream corridor. It was also observed that a mapped corridor that the applicant had contemplated to relocate in order to accommodate the proposed development was a rail line that would be more challenging to relocate. Once these constraints were considered, the remaining buildable acreage totaled approximately 36 acres. In addition, while the site was located in close proximity to natural gas pipeline, the closest natural gas pipeline is approximately three (3) miles away which would result in approximately $\$ 30$ million dollars in additional expense.

While Alternative 1 meets some of the site selection criteria, impacts to aquatic resources would substantially increase, relocation of the rail line would cause logistical challenges, and all constraints considered cumulatively reduced the total acreage of buildable land. Off-site alternative 1 does not meet the constraints of this project and is not considered practicable.

Off-site alternative 2: This site is located east of Logan Thornville Road-Northeast (State Route 664), north of the Village of Rushville, in Fairfield County, Ohio (Refer to Figure 1 below). This site was identified for consideration based on proximity to natural gas, on-site availability of high voltage electric transmission lines, and the apparent availability of 134 acres of land. This site is comprised of
two (2) parcels, each under separate ownership. The availability of water and sanitary sewer utilities at this site was questionable.

The on-site high voltage electric transmission carries 345 kV , which would transmit $45 \%$ of the load of a 765 kV electric transmission line. Thus, the line was considered insufficient for the proposed electricity generating facility and would require significant financial investments (e.g., millions of dollars in financial investments) for system upgrades. The site is located approximately 15 miles from I-70 and is located near a rail line. Therefore, access to this site would require the use of smaller, county roads, which would be a constraint for large construction equipment and would increase safety concerns.

The applicant's review of USFWS' NWI mapping and aerial imagery interpretation indicated the site contained approximately 5.7 acres of wetland and approximately 5,285 linear feet of stream. Construction at this site would require approximately 28.4 acres of tree clearing. Once aquatic resource constraints were considered in association with road setbacks and distances required between the generating facility and substation, the remaining buildable acreage totaled approximately 70 acres.

In addition, this site is zoned residential, with low residential density in the surrounding area. The applicant met with the Economic Development Director and the County Engineer for Fairfield County to pursue rezoning of this site. The economic development director and the county engineer indicated the county commissioners and the township trustees would oppose the project. The applicant was informed that a power plant is not the type of industry the county is interested in attracting. Thus, the applicant was unsuccessful in pursuing rezoning for this site.

While Alternative 2 meets some of the site selection criteria, the voltage capacity of the existing electric transmission line on-site would be insufficient to meet the needs of project without substantial investments and system upgrades, and the buildable acreage of land would be inadequate for development. Furthermore, the current zoning at the site would not allow for the proposed development. Offsite Alternative 2 does not meet the constraints of this project and is not considered practicable.

Off-site alternative 3: This site is located South of Clay Pike Road (State Route 313) and west of Helena Road, northwest of the unincorporated community of Derwent, in Guernsey County, Ohio (Refer to Figure 1 below). This site was identified for consideration as it has on-site high voltage ( 765 kV ) electric transmission lines and the apparent availability of 178 acres of land.

This site is comprised of two (2) parcels with separate owners. The site is approximately eight (8) miles from $1-77$ and is not serviced by rail. This site has no zoning constraints. The site does not have water and sanitary sewer utility services. Access to this site would require the use of smaller, winding county roads, which would be a constraint for large construction equipment and would increase safety concerns. In addition, while the site was located in close proximity to natural gas pipeline, the closest natural gas pipeline is approximately five (5) to seven (7) miles away which would result in approximately $\$ 50-70$ million dollars in additional expense.

The applicant's review of USFWS' NWI mapping and aerial imagery interpretation indicated the site contained approximately 4.3 acres of wetland and approximately 10,575 linear feet of stream and would require approximately 14.7 acres of tree clearing. Steep terrain makes portions of this site infeasible for the proposed development and would require additional earthen material to be brought on-site to balance slopes. With these considerations, the remaining buildable contiguous acreage totaled approximately 85 acres.

While this site does not have zoning constraints, the main parcel of this site is part of a 100 year family trust with over 13 parties which cannot be broken, as provided during an on-site meeting with the landowner. Therefore, the land is not available for sale and the applicant indicated eminent domain would not be possible in this scenario.

While Alternative 3 meets some of the site selection criteria, the proximity to the nearest natural gas pipeline would require additional significant investments, the buildable acreage of land would be inadequate for development, the site does not have water and sanitary sewer utility services, and the land is not obtainable. Off-site Alternative 3 does not meet the constraints of this project and is not considered practicable.

Figure 1: Overview of Off-Site Alternatives


### 5.2.3 On-site alternatives

On-site alternative 1 (applicant's preferred alternative): This alternative would involve the development of a natural gas-fired combined cycle electric generating facility. Components of the electric generating facility would include the generating facility and substation, site access/equipment access, ancillary equipment, acreage for air cooled condensers, and step up transformers, easements, buffer zones, laydown and parking (refer to Section 1.3 for details). The generating facility would be constructed north of Willis Creek with the substation constructed south of Willis Creek, at the interconnection property. This alternative would result in the permanent discharge of dredged and/or fill material into 3.07 acres of wetland and the temporary discharge of dredged and/or fill material into 3.46 acres of wetland. Alternative 1 was designed by an AEP approved contractor with the necessary proprietary information to produce a proposed design that would meet all required minimum clearances for the 765 kV
electrical transmission line, design criteria and safety and security criteria. This alternative is considered practicable or reasonable.

On-site alternative 2: Under this alternative, the proposed generating facility and substation would be constructed north of Willis Creek. The total land disturbance would be approximately 133 acres. As the applicant conducted additional research on this proposed design, it was determined the proposed layout design did not reflect the typical breaker scheme AEP requires and did not meet the minimum required clearances for a $765-\mathrm{kV}$ electrical transmission lines. This design also did not allow for necessary space for turning structures or provide for the needed space for a separate, gated access to the substation for security reasons. Therefore, additional property would need to be acquired to accommodate the substation. This alternative would involve the permanent discharge of dredged and/or fill material into 2.2 acres of wetlands. While this alternative would result in fewer impacts to the aquatic environment, it would result in logistical challenges; thus, it is not considered practicable or reasonable.


On-site alternative 3: Under this alternative, the proposed generating facility would be constructed north of Willis Creek with the substation constructed south of Willis Creek, at the interconnection property. Alternative 2 would result in the same total land disturbance as the applicant's preferred alternative. The generating facility would be constructed where the northeastern edge of the proposed development would impact wetlands. At the interconnection property, the substation would be shifted to the eastern side of the interconnection property site and construction of a proposed access would impact wetlands. In
addition, this alternative would not meet standard required specific phase spacing and minimum required clearances for the 765 kV electrical transmission lines and ancillary equipment. This alternative would involve the permanent discharge of dredged and/or fill material into 8.1 acres of wetlands. Alternative 2 would result in greater disturbance to aquatic habitat and would result in logistical challenges. This alternative is not considered practicable or reasonable.


On-site alternative 4: Under this alternative, the proposed generating facility would be constructed north of Willis Creek with the substation constructed south of Willis Creek, at the interconnection property. Alternative 2 would result in the same total land disturbance as the applicant's preferred alternative. The generating facility would be constructed where grading associated with the northeastern edge of the facility would impact wetlands. At the interconnection property, the substation would be shifted to the western side of the interconnection property site and a shared access road was negotiated with an adjacent business in order to reduce wetland impacts. In addition, the step-up transformers were relocated from the interconnection property to the facility site. However, this proposed design was created by Kiewit, a non-approved AEP contractor. Therefore, the applicant hired Sargent \& Lundy (S\&L), an AEP approved contractor to take over the design of the proposed substation. Based S\&L's expertise and proprietary knowledge of AEP's requirements, it was determined the substation design under this alternative would not allow for the required clearances between and around the $765-\mathrm{kV}$ electrical transmission lines, ancillary equipment, and the security required by AEP. Specially, this design would not allow for the: minimal acceptable clearances between the 765
kV electrical lines feeding into and out of the substation; minimal acceptable clearances between the 765 kV electrical transmission lines and breakers, ancillary equipment and the fence within the substation; turning structures necessary to facilitate smooth turning angles for 765 kV electrical transmission lines (no 90-degree angles allowed); two (2) separate low voltage lines that are required to reliably supply auxiliary power for substation operations; and security monitoring equipment, secured access, including fences and gates, controlled by AEP. Given this, the applicant stated this design was not technically feasible.

While this alternative would involve the permanent discharge of dredged and/or fill material into 2.3 acres of wetlands, it would not meet specific design standards for electric transmission established by AEP. Therefore, this alternative would result in logistical challenges; thus, it is not considered practicable or reasonable.

5.3 Evaluate alternatives and whether or not each is practicable under the Guidelines or reasonable under NEPA: Due to the required minimum clearances for the 765 kV electrical transmission lines, and other design, safety, and security criteria, Alternatives 2 and 4 are considered not reasonable and practicable. Due the same design criteria, and significantly larger impacts to aquatic resources, Alternative 3 was considered not reasonable or practicable. Alternative 1 (applicant's preferred alternative) is considered reasonable and practicable.
5.4 Least environmentally damaging practicable alternative under the 404(b)(1) Guidelines (if applicable) and the environmentally preferable alternative under

NEPA:The applicant's preferred alternative (Alternative 1) has been determined to be the LEDPA because all other alternatives were determined to be either impracticable or unreasonable.
6.0 Evaluation for Compliance with the Section 404(b)(1) Guidelines. The following sequence of evaluation is consistent with 40 CFR 230.5
6.1 Practicable alternatives to the proposed discharge consistent with 40 CFR 230.5(c) are evaluated in Section 5. The statements below summarize the analysis of alternatives.

In summary, based on the analysis in Section 5.0 above, the no-action alternative, which would not involve discharge into waters, is not practicable. For those projects that would discharge into a special aquatic site and are not water dependent, the applicant has demonstrated there are no practicable alternatives that do not involve special aquatic sites. Concur

It has been determined that there are no alternatives to the proposed discharge that would be less environmentally damaging. (Subpart B, 40 CFR 230.10(a)). The proposed discharge in this evaluation is the practicable alternative with the least adverse impact on the aquatic ecosystem, and it does not have other significant environmental consequences.
6.2 Candidate disposal site delineation (Subpart B, 40 CFR 230.11(f)). Each disposal site shall be specified through the application of these Guidelines:

Discussion: Disposal site means that portion of the "waters of the U.S." where specific disposal activities are permitted and consist of a bottom surface area and any overlying volume of water. In the case of wetlands on which surface water is not present, the disposal site consists of the wetland surface area. The proposed project would result in the permanent discharge of dredged and/or fill material into 3.07 acres of wetlands and the temporary discharge of dredged and/or fill material into 3.46 acres of wetlands. Baseline conditions can be found under Section 1.4 of this document. The proposed project area would be located outside of any private or public water supply areas. The project would neither impact habitats that provide viable populations of economically important fish and shellfish species nor adversely affect waters that are used for water related recreation. No developed recreational facilities are present in the immediate vicinity of the proposed development. No impact on important commercial or recreational sport fish species is expected to occur as a result of the proposed development. It would not be expected that connected waterways where there is water-related recreation would not be affected by the planned activities. The proposed project would not impact any national, state or local park, forest or recreation area. There are no national and historical monuments, wilderness
areas, research sites and similar preserves within the project area. The project area is not designated under Federal or State laws or local ordinances as being managed for its aesthetic, educational, historical, recreational, or scientific value. The proposed project would not be anticipated to have a significant adverse effect on the aesthetic appeal of the area.

### 6.3 Potential impacts on physical and chemical characteristics of the aquatic

 ecosystem (Subpart C 40 CFR 230.20). See Table 1:| Table 1 - Potential Impacts on Physical and Chemical Characteristics |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Physical and Chemical Characteristics | N/A | No Effect | Negligible Effect | Minor Effect (Short Term) | Minor Effect (Long Term) | Major Effect |
| Substrate |  |  |  | X |  |  |
| Suspended particulates/ turbidity |  |  |  | X |  |  |
| Water |  |  | X |  |  |  |
| Current patterns and water circulation |  |  | x |  |  |  |
| Normal water fluctuations |  |  | X |  |  |  |
| Salinity gradients | X |  |  |  |  |  |

## Discussion:

Substrate: The substrate contains the organic and inorganic solid materials and includes water and other liquids or gases that fill spaces in between the solids. Inorganic material includes cobble, gravel, and other inorganic substrate components. Organic material includes detritus (broken down leaf material), grass, lichens, and larger woody debris that have fallen into the wetlands. Please reference Section 1.4 for a description of the substrate characteristics of the wetlands proposed to be impacted by the discharge of dredged and/or fill material. Proposed temporary and permanent discharges of dredged and/or fill material into 6.53 acres of Wetlands W-C31, W-C52, and W-C53 would cause changes to the complex physical, chemical and biological characteristics of the substrate. Existing biotic communities, including fungal and microbial communities that actively degrade organic materials on the surface of the wetlands, would be impacted by the regulated activity. The proposed discharge would alter the substrate elevation and contours and would likely result in changes to water circulation, depth, water fluctuation, and water temperature. Effects to downstream areas would be limited by compliance with the OEPA NPDES program. BMPs would be implemented to control erosion and sedimentation at the site. Prompt and effective revegetation of the disturbed area would further reduce the potential for erosion. All sediment and erosion controls
would be inspected periodically, and repairs would be performed as needed. The Section 401 Water Quality Certification (WQC) would be made a part of any DA permit issued for the proposed project (See Section 11.2). As indicated above, consideration has been given to the similarity in particle size, shape, and degree of compaction of the material proposed for discharge and the material constituting the substrate at the disposal site, and any potential changes in substrate elevation and bottom contours, including changes outside of the disposal site which may occur as a result of erosion, slumpage, or other movement of the discharged material. The duration and physical extent of substrate changes have also be considered. The possible loss of environmental values ( $\S 230.20$ ) and actions to minimize impact (subpart H) have also been considered in making these determinations. Based on the above, there is minimal potential for short- or long-term environmental effects of the proposed discharge of fill material as related to the physical substrate at the disposal sites.

Suspended Particulates/Turbidity: As a result of filling activities, this project has the potential to result in temporary increases of suspended solids and turbidity. Work within waters of the U.S. would occur during low flow periods to the greatest extent practicable (See Section 11.2). Stormwater discharges would likely be the primary source of WQS as a result of the project. These discharges generally decrease water quality by increasing the concentration and loading of total suspended solids, total dissolved solids, conductivity, hydrocarbons, nutrients, temperature, and chemical oxygen demand. The increased amount of runoff would be mitigated on the site via the implementation of the applicant's SWPPP, and would be in accordance with the latest edition of the Ohio Department Natural Resource (ODNR) Rainwater and Land Development Manual and in consultation with other state and local agencies. Water pollution controls and BMPs would also be implemented on the site during construction activities to minimize sedimentation and turbidity. Any increases in turbidity would be expected to decrease after construction has ceased, vegetation planting has been completed, and sediment equilibrium has been achieved. Post-construction site runoff would be required to meet the requirements of the state and local authorities. The Section 401 WQC would be incorporated into (See Section 11.2) any DA permit issued for the proposed project. Compliance with the OEPA's WQC and implementation of a SWPPP would ensure no substantial temporary or long-term adverse effects to water quality. Negligible effects on the water column would be anticipated to occur downstream of the development site. Based on the above, there is minimal potential for short- or long-term environmental effects of the proposed discharges of fill material as related to suspended particulates and turbidity.

Current Patterns and Water Circulation: Water patterns and circulation (40 CFR 230.23) are the physical movements of water through an aquatic ecosystem. The attributes of water flows associated with the on-site waters of the U.S. are controlled by their geomorphological position in the landscape. The quantity and timing of the flows are dependent upon their relative landscape
context. Water present within the on-site aquatic resources is dictated by a combination of factors including runoff, precipitation and groundwater as well as the type of vegetation and soils at the site. The proposed project would result in the temporary and permanent discharge of dredged and/or fill material into 6.53 acres of wetlands. No major effects on current patterns or water circulation would be anticipated to occur downstream of the impact areas as a result of the proposed activities.

Water: Water is the part of the aquatic ecosystem in which organic and inorganic constituents are dissolved and suspended. It constitutes part of the liquid phase and is contained by the substrate. Water forms part of a dynamic aquatic life-supporting system. Water clarity, nutrients and chemical content, physical and biological content, dissolved gas levels, pH , and temperature contribute to water's life-sustaining capabilities (40 CFR 230.22). The proposed generating facility would use a dry air cooling system to reduce air emissions and minimize water use during the cooling process. This air cooling technology, which can reduce water consumption by as much as $95 \%$ compared to wet cooling, has been integrated into the design of the generating facility to minimize water needs to the greatest extent possible. Pursuant to Section 401 of the Clean Water Act, the OEPA is responsible for ensuring WQS are maintained throughout the state. Acute and chronic WQS have been instituted by the state to be protective of human health and the environment regarding both individual and cumulative impacts. On 20 February 2018, the OEPA has issued a Section 401 WQC for the proposed project and has found the project would not degrade water quality. Certification of compliance with applicable effluent limitations and WQS required under provision of Section 401 of the Clean Water Act are considered to be conclusive with respect to water quality considerations unless the Regional Administrator of the USEPA advises of other water quality aspects to be taken into consideration (33 CFR 320.4(d)). The Regional Administrator of the USEPA did not advise the Corps of any water quality aspects to be taken under consideration. Based on the above, there is minimal potential for short or long-term environmental effects of the proposed discharges as related to the water.

Normal Water Fluctuations: Flow from the site to downstream areas would continue to be maintained throughout and following the construction period for the project. Based on the above, there is minimal potential for short or long-term environmental effects of the proposed discharges as related to the normal water fluctuation.

Salinity gradients: Salinity gradients form where salt water from the ocean meets and mixes with fresh water from land. The proposed project would occur in non-tidal waters of the U.S.; therefore, this physical and chemical characteristic of the Section 404(b)(1) Guidelines would not apply.
6.4 Potential impacts on the living communities or human uses (Subparts D, E and F):
6.4.1 Potential impacts on the biological characteristics of the aquatic ecosystem (Subpart D 40 CFR 230.30). See Table 2:

| Table 2 - Potential Impacts on Biological Characteristics |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Biological <br> characteristics | N/A | No <br> Effect | Negligible <br> Effect | Minor <br> Effect <br> (Short <br> Term) | Minor <br> Effect <br> (Long <br> Term) | Major <br> Effect |
| Threatened and <br> endangered species |  |  |  | X |  |  |
| Fish, crustaceans, <br> mollusk, and other <br> aquatic organisms |  |  |  |  |  |  |
| Other wildlife |  |  |  | $X$ |  |  |

## Discussion:

Threatened and endangered species: The project is located within the known or historic range of the following threatened and endangered species: the endangered Indiana bat (Myotis sodalis), and the threatened northern long-eared bat (Myotis septentrionalis). The Corps has consulted the most recently available information, and based on the applicant's commitment to implement seasonal tree clearing as recommended by the USFWS, the project may affect, but is not likely to affect either the Indiana bat or the northern long-eared bat. Based on this information, the proposed project may affect, but is not likely to adversely affect the continued existence of any endangered species or threatened species, and would not result in the destruction or adverse modification of habitat of such species which has been determined to be critical.

Fish, crustaceans, mollusk, and other aquatic organisms: Aquatic organisms in the food web include, but are not limited to, fish, crustaceans, mollusks, insects, annelids, planktonic organisms, and the plants and animals on which they feed and depend upon for their needs. All forms and life stages of an organism, throughout its geographic range, are included in this category. Effects to aquatic life and the overall aquatic community are not expected to be significant as result of the discharge of permanent dredged and/or fill material into 3.07 acres of wetland and the temporary discharge of dredged and/or fill material into 3.46 acre of wetlands. It would be anticipated the proposed temporary and permanent discharge of dredged and/or fill material into the wetlands would result in the displacement of aquatic species. This project would not jeopardize the existence of any plant or animal species. Minimization of the
detrimental impact on aquatic resources and water quality would be accomplished by the implementation of the applicant's SWPPP. The applicant's use of BMPs would limit erosion and reduce sediment transport associated with storm water runoff from the disturbance areas. These practices would control and minimize sediment and turbidity increases in surface water, thereby minimizing impacts to aquatic ecosystems and organisms. Since the potential impacts of project disturbance and discharge on invertebrate communities are considered minor, there would be minimal or no effects on the aquatic food web. Potential short-term effects on macroinvertebrates would not affect their role as a food source for fish. It is expected the regulated filling activity would result in minimal impacts to the semi-aquatic and aquatic wildlife ecosystem.

Other Wildlife: Other wildlife associated with aquatic ecosystems, such as resident and transient mammals, birds, reptiles, and amphibians that require aquatic habitat, including breeding and nesting areas, escape cover, travel corridors, and preferred food sources are likely present within the project area. The discharge of dredged and/fill material has the potential to result in the loss or change of breeding and nesting areas, escape cover, travel corridors, and preferred food sources for resident and transient wildlife species associated with the aquatic ecosystem. These adverse impacts upon wildlife habitat may result from changes in water levels, water flow and circulation, chemical content, and substrate characteristics and elevation. Increased water turbidity is expected to adversely affect wildlife species that rely upon sight to feed, and disrupt the respiration and feeding of certain aquatic wildlife and food chain organisms. Changes in such physical and chemical factors of the environment may favor the introduction of undesirable plant and animal species at the expense of resident species and communities. Terrestrial wildlife habitat would be affected through the clearing of vegetation on the project site. The loss or alteration of habitat resulting from the project would most likely result in the direct loss of small less mobile wildlife species and the displacement of more mobile species. Adjacent areas would provide habitat for the relocation of the wildlife species initially displaced by the proposed regulated activities. It would not be expected the loss wetland habitat would have a significant impact on the wildlife because these habitats are common in this region and the wildlife would relocate to other nearby areas. Based on the above, only minor short term environmental effects are anticipated from the proposed discharge of fill material as related to other wildlife.
6.4.2 Potential impacts on special aquatic sites (Subpart E 40 CFR 230.40). See Table 3:

| Table 3 - Potential Impacts on Special Aquatic Sites |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Special Aquatic Sites | N/A | No Effect | Negligible Effect | Minor <br> Effect <br> (Short <br> Term) | Minor <br> Effect <br> (Long <br> Term) | Major <br> Effect |
| Sanctuaries and refuges | X |  |  |  |  |  |
| Wetlands |  |  |  |  | X |  |
| Mud flats | X |  |  |  |  |  |
| Vegetated shallows | X |  |  |  |  |  |
| Coral reefs | X |  |  |  |  |  |

Discussion: The proposed project area does not include any sanctuaries or refuges, mud flats, vegetated shallows, coral reefs, or riffle pool complexes.

Wetlands: Approximately 6.53 acres of Category 2 emergent, scrub-shrub, and forested wetland (Wetlands W-C31, W-C52, and W-C101 would be affected by the temporary and permanent discharge of dredged and/or fill material associated with the construction of proposed electricity generating facility. Please reference Section 1.4 for the baseline conditions of Wetlands W-C31, WC52, and W-C101. To offset the loss of wetland, the applicant has proposed to purchase wetlands credits from a federally-approved in-lieu fee program.
6.4.3 Potential impacts on human use characteristics (Subpart F 40 CFR 230.50). See Table 4:

| Table 4-Potential Impacts on Human Use Characteristics |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Human Use <br> Characteristics | N/A | No <br> Effect | Negligible <br> Effect | Minor <br> Effect <br> (Short <br> Term) | Minor <br> Effect <br> (Long <br> Term) | Major <br> Effect |
| Municipal and private <br> water supplies |  | X |  |  |  |  |
| Recreational and <br> commercial fisheries |  | X |  |  |  |  |
| Water-related <br> recreation |  | X |  |  |  |  |
| Aesthetics |  |  |  | X |  |  |
| Parks, national and <br> historical monuments, <br> national seashores, <br> wilderness areas, |  | X |  |  |  |  |


| Table 4-Potential Impacts on Human Use Characteristics |  |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Human Use <br> Characteristics | N/A | No <br> Effect | Negligible <br> Effect | Minor <br> Effect <br> (Short <br> Term) | Minor <br> Effect <br> (Long | Major <br> Teffect |
| research sites, and <br> similar preserves |  |  |  |  |  |  |

## Discussion:

Municipal and Private Water Supplies: No municipal or public water supplies are expected to be impacted by the proposed project. As stated in Section 6.3, air cooling, which can reduce water consumption by as much as $95 \%$ compared to wet cooling, has been selected by the applicant as the preferred technology and has been integrated into the design of the generating facility to minimize water needs to the greatest extent possible. No effects on municipal private water supplies are expected to occur.

Recreational and Commercial fisheries: The proposed project would not impact habitat that provides viable populations of economically important fish and shellfish species nor waters that are used for water related recreation. No effects on important commercial or recreational sport fish species are expected to occur as a result of the proposed project.

Water Related Recreation: It would not be expected that connected waterways where there is water-related recreation would be affected by the proposed project.

Aesthetics: Aesthetics associated with the aquatic ecosystem consist of the perception of beauty by one or a combination of the senses of sight, hearing, touch, and smell. Aesthetics of aquatic ecosystems apply to the quality of life enjoyed by the general public and property owners. The planned activities would result in visual effects in conjunction with construction activities that would take place in and adjacent to the aquatic ecosystem within the footprint of the proposed generating facility and substation site. The discharge of dredged or fill material into waters of the US associated with proposed project would cover the natural wetland substrate of the aquatic ecosystem. To compensate for the loss of wetlands, the applicant has proposed to purchase wetland credits from a Federally approved in-lieu fee program. With the required compensatory mitigation the proposed action would not result in cumulative loss to wetlands in the watershed or region. Direct and short-term impacts are expected to result from the construction of the project, increased turbidity, erosion, vegetation removal, and noise. No significant, direct, indirect or cumulative impacts on
aesthetics of the aquatic environment would be expected as result of the planned activities.

Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves: The proposed project is expected to have no effect on values such as those associated with wild and scenic rivers, National Landmarks, National Rivers, National Wilderness Areas, National Recreation Areas, National Parks, or National Monuments. Six (6) parks and recreational areas are located within five (5) files of the proposed facility site. These areas are not expected to be negatively impacted by the proposed project.
6.5 Pre-testing evaluation (Subpart G, 40 CFR 230.60):

The following has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. See Table 5:

| Table 5-Possible Contaminants in Dredged/Fill Material |  |
| :--- | :---: |
| Physical characteristics | X |
| Hydrography in relation to known or anticipated sources of contaminants |  |
| Results from previous testing of the material or similar material in the <br> vicinity of the project |  |
| Known, significant sources of persistent pesticides from land runoff or <br> percolation |  |
| Spill records for petroleum products or designated (Section 331 of CWA) <br> hazardous substances |  |
| Other public records or significant introduction of contaminants from <br> industries, municipalities, or other sources |  |
| Known existence of substantial material deposits of substances which <br> could be released in harmful quantities to the aquatic environment by <br> man-induced discharge activities |  |

## Discussion:

The project would involve the discharge of approximately 1,230 cubic yards of fill material, consisting of clean soil, subsoil, and rock into 3.07 acres of wetland in association with grading and filling activities. Generally, fill material is most likely to be free from chemical, biological, or other pollutants where it is composed primarily of sand, gravel, or other naturally occurring inert material. Based on the source of the fill material, the methods of construction proposed, the BMPs that would be implemented, and the applicant's compliance with the Section 401 WQC and other required local and state permits, the Corps has determined the proposed project would not significantly introduce, relocate or increase contaminants. On the basis of the evaluation prescribed in 40 CFR 230.60, the likelihood of contamination by pollutants is acceptably low. There is nothing in the composition of the fill material or the source to suggest the material would contain toxic pollutants. Therefore, in accordance with 40 CFR 230.6(a), no
chemical or biological testing is required to make the factual determination for this fill material.

It has been determined that testing is not required because the proposed material is not likely to be a carrier of contaminants because it is comprised of sand, gravel or other naturally occurring inert material.
6.6 Evaluation and testing (Subpart G, 40 CFR 230-61):

Discussion: N/A
6.7 Actions to minimize adverse impacts (Subpart H). The following actions, as appropriate, have been taken through application of 40 CFR 230.70-230.77 to ensure minimal adverse effects of the proposed discharge. See Table 6:

| Table 6-Actions to Ensure Adverse Effects are Minimized |  |
| :--- | :---: |
| Actions concerning the location of the discharge | X |
| Actions concerning the material to be discharged | X |
| Actions controlling the material after discharge | X |
| Actions affecting the method of dispersion | X |
| Actions affecting plant and animal populations | X |
| Actions affecting human use | X |

Discussion: Alternatives for the proposed project were considered during the development of the project design as discussed in Section 5.0. The location of the discharge is determined by the design of the project.

40 CFR 230.70: Proposed work at the site within waters of the U.S. would take place during low water conditions to the maximum extent practicable in order to minimize adverse impacts to water quality in and downstream from the project site. Any Corps DA permit issued for this project would include a special condition (See Section 11.2) to require the use of BMPs. All disturbed areas would be seeded and/or revegetated with native plant species and seed mixes after completion of construction activities.

40 CFR 230.71: Clean fill material free from toxic contaminants would be discharged into waters of the U.S. Clean stone and rip-rap would be used in all locations where such materials are necessary.

40 CFR 230.72: Stormwater management planning would incorporate BMPs and water pollution controls necessary to maintain compliance with the Federal Water Pollution Control Act and Ohio Water Pollution Control Act. The applicant would minimize the construction disturbances during anticipated precipitation events and would work in areas where sediment control has been established
prior to land disturbance. BMPs would be used throughout project construction to avoid the creation of unnecessary turbidity, which could degrade water quality or adversely affect aquatic life outside of the project area. Timely construction and maintenance of storm water management structures, combined with concurrent revegetation of disturbed areas, would further minimize erosion and sedimentation. The storage of fuels, oils and other potentially toxic fluids and the maintenance and refueling of construction equipment would occur in accordance with the provisions of the BMPs. Procedures would be implemented to eliminate the possibility of spills and to control dust that could enter the waterway by runoff or point source discharge.

40 CFR 230.73: The applicant has selected and designed the discharge site to confine and minimize the release of suspended particulates and to minimize the potential to increase turbidity levels. Temporary measures would be employed during construction to minimize any increase in suspended solids and turbidity. Work would take place during low water conditions to the maximum extent practicable in order to minimize adverse impacts to water quality away from the project site. Stabilization measures, including timely grading and revegetation of operational areas and stabilization of fill material, would be required to further minimize the potential for excessive erosion and deposition of sediment in waters of the U.S.

40 CFR 230.74: All applicable environmental and health and safety regulations would be adhered to during construction of the overall mixed use development. The applicant would use appropriate equipment or machinery and operational techniques, including protective devices, in activities related to the discharge of dredged or fill material. All equipment would be inspected in accordance with the applicant's SWPPP to ensure hydraulic, fuel and lubrication systems are in good condition and free of leaks. The storage of fuels, oils and other potentially toxic fluids and the maintenance and refueling of construction equipment would occur in accordance with the provisions of the BMPs. Procedures would be implemented to eliminate the possibility of spills and to control dust that could enter the waterway by runoff or point discharge.

40 CFR 230.75: The project design would avoid disturbances to approximately 52.99 acres of on-site wetlands and 4,777 linear feet of streams located within the PJD area. A special condition of any DA permit, if issued, would require that all water resources and their buffers, which are to be avoided, must be clearly indicated on site drawings, demarcated in the field, and protected with suitable materials prior to site disturbance. Planting plans for disturbed areas would not include non-indigenous species of plants.

40 CFR 230.76: The proposed activities would neither be located within the vicinity of a public water supply intake nor result in unacceptable modifications to groundwater, surface water bodies or public water supply systems. The proposed activities would neither impact natural, ecological or scenic resources of national, state or local significance.

Based upon the Federal Emergency Management Agency (FEMA) mapping, a portion of the site lies within the Zone AE, which includes areas within the 1percent annual chance flood, also referred to as the base flood or 100-year flood. The applicant coordinated with the local and state floodplain agencies. In a letter dated 6 December 2017, the Guernsey County Highway Department, the local floodplain agency, stated that major utility facilities that require permitting through the OPSB are exempt from filing a Floodplain Development Permit, per section 3.9(c) of the Guernsey County Flood Development Regulations, and no application or subsequent permit is required. Per Condition 20 of the OPSB approval, the applicant filed the 6 December 2017 correspondence from the Guernsey County Engineer with the OPSB. In addition, the applicant indicated that stormwater management systems would appropriately address site runoff such that site flow are appropriately handled and location flooding is not exacerbated. The proposed project, in association with cumulative impacts from similar activities, would not be expected to result in any significant degradation of floodplain values and functions and should not have any adverse impact to potential flooding.
6.8 Factual Determinations (Subpart B, 40 CFR 230.11). The following determinations are made based on the applicable information above, including actions to minimize effects and consideration for contaminants. See Table 7:

| Table 7- Factual Determinations of Potential Impacts |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Site | N/A | No <br> Effect | Negligible <br> Effect | Minor <br> Effect <br> (Short <br> Term) | Minor <br> Effect <br> (Long <br> Term) | Major <br> Effect |
| Physical substrate |  |  |  |  | X |  |
| Water circulation, <br> fluctuation and salinity |  |  |  | X |  |  |
| Suspended <br> particulates/turbidity |  |  |  | X |  |  |
| Contaminants |  |  |  |  |  |  |

Discussion:

Physical Substrate: As previously discussed in Section 6.3, the duration and extent of substrate changes at the proposed disposal site would be permanent, with minor short- and long-term effects. No unacceptable indirect or cumulative adverse effects on physical substrate at the disposal site, or within the affected watershed, would be expected as result of the proposed fill activities. The applicant has proposed to provide compensatory mitigation for the lost wetland functions that would result from the discharges of dredged and/or fill material associated with the proposed project. See Section 9.0 for additional information.

Water circulation, fluctuation, and salinity: As previously discussed in Section 6.3, consideration was given to water chemistry, clarity, color, dissolved gas levels, temperature, nutrients, eutrophication, potential diversion or obstruction of flow, alterations of bottom contours, and changes to the hydrologic regime. These characteristics are analyzed and addressed through the Section 401 WQC and the NPDES review processes. The OEPA has issued a Section 401 WQC for the proposed project and has found the project would not degrade water quality. Implementation of the SWPPP and associated BMPs would reduce or eliminate sediments reaching downstream areas, thereby reducing the potential effect. The proposed discharge would have minor short term adverse effects on water circulation and normal water fluctuation. This activity would have no effect on salinity gradients.

Contaminants: As previously discussed in Section 6.5, based on the nature and sources of fill material, the aquatic environment at the proposed disposal site, and the availability of contaminants, the material proposed for discharge is not expected to introduce, relocate or increase pollutants.

Aquatic Ecosystem and Organism: Fish and other motile animals would most likely avoid the project site during construction. Sessile or slow-moving animals in the path of discharges and equipment would be destroyed. Some aquatic animals would be smothered by the discharge of fill material. Short- and longterm impacts to aquatic ecosystem and its organisms are expected to be minimal. Possible loss of environmental values (230.31), and actions to minimize impacts (subpart H) were considered in this determination.

Proposed Disposal Site: The implementation of the SWPPP would ensure that the mixing zone would be confined to the smallest practicable zone within each disposal site. Effects would be limited to temporary levels of suspended solids and turbidity.

Cumulative effects on the aquatic ecosystem: Cumulative effects attributable to the discharge of dredged and/fill material in waters of the U.S. associated with the generating facility development have been predicted to the extent reasonable and practical. The Corps has considered the area in which the cumulative effects would be felt, the impacts that are in that area from the project and, other
past, present and reasonably foreseeable actions that have or are expected to have impacts in the area, the impact or expected impacts from these other actions, and the overall impact that can be expected if the individual impacts are allowed to accumulate. In assessing cumulative effects, the key determinant of importance or significance is whether the incremental effect of the proposed action will alter the sustainability of the resource in light of other effects (including those actions completely unrelated to the proposed action) that the resource has experienced up until the present and/or will experience in the future.

The Corps has considered how past activities have historically affected and will continue to detrimentally affect the aquatic environment. The Corps also considered information on all other relevant activities in the cumulative impact area (CIA), including other actions of the proposing agency, actions of other federal agencies, actions of state and local governments, and private actions that are reasonably expected to occur. See Section 9.0 for additional information.

The evaluation of cumulative effects reasonably took into consideration known past, present and reasonably foreseeable future impacts to the aquatic, natural and human environments in a reasonably defined geographic area Trails RunWills Creek watershed (HUC 050400050207 of the Muskingum watershed).

The Corps evaluated the primary and secondary individual and cumulative impacts of the proposed project on valued ecosystem components, such as aquatic and riparian and upland forests resources. The Corps has determined that cumulative effects on the following factors will not be significant or unacceptable: substrate; currents, circulation, and drainage patterns; suspended particulates and turbidity; water quality (temperature, salinity patterns, and other parameters); flood control functions; storm, wave, and erosion buffers; erosion and accretion patterns; aquifer recharge; base flow; habitat for fish and other aquatic organisms; wildlife habitat (breeding, cover, food, travel, general); endangered and threatened species; existing and potential water supplies and water conservation; recreational and commercial fisheries; other water-related recreation; and aesthetics. See Sections 6.3-6.8 and 9.0 for additional information.

Secondary effects on the aquatic ecosystem: Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of fill material, but do not result from the actual discharge of the fill material. Secondary impacts that may result from this project include downstream changes in hydrology and water quality and decreased primary productivity due to removal of vegetation. The applicant has designed a storm water management system that would receive the increased runoff from the development and thereby prevent downstream impacts to aquatic resources. Any permit will be conditioned to include all practicable and appropriate measures to minimize potential harm to the aquatic environment. Only minor short term secondary adverse effects on the aquatic ecosystem would be expected as result of the proposed fill activities.
6.9 Findings of compliance or non-compliance with the restrictions on discharges (40 CFR 230.10(a-d) and 230.12). Based on the information above, including the factual determinations, the proposed discharge has been evaluated to determine whether any of the restrictions on discharge would occur. See Table 8:

| Table 8-Compliance with Restrictions on Discharge |  |  |
| :--- | :--- | :--- |
| Subject | Yes | No |
| 1. Is there a practicable alternative to the proposed discharge that <br> would be less damaging to the environment (any alternative with <br> less aquatic resource effects, or an alternative with more aquatic <br> resource effects that avoids other significant adverse environmental <br> consequences?) |  | X |
| 2. Will the discharge cause or contribute to violations of any <br> applicable water quality standards? |  | X |
| 3. Will the discharge violate any toxic effluent standards (under <br> Section 307 of the Act)? |  | X |
| 4. Will the discharge jeopardize the continued existence of <br> endangered or threatened species or their critical habitat? | X |  |
| 5. Will the discharge violate standards set by the Department of <br> Commerce to protect marine sanctuaries? | X |  |
| 6. Will the discharge cause or contribute to significant degradation <br> of waters of the U.S.? | X |  |
| 7. Have all appropriate and practicable steps (Subpart H, 40 CFR <br> 230.70) been taken to minimize the potential adverse impacts of the <br> discharge on the aquatic ecosystem? | X |  |

Discussion: The alternative being carried forward in this evaluation is the practicable alternative with the least adverse impact on the aquatic ecosystem, and it does not have other significant environmental consequences. Issuance of a Section 401 WQC for the project ensures compliance with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act. The project is located within the known or historic range of the following threatened and endangered species: endangered Indiana bat (Myotis sodalis), and threatened northern long-eared bat (Myotis septentrionalis). The Corps has consulted the most recently available information, and based on the proposed implementation of the seasonal tree clearing restrictions, the project may affect, but is not likely to adversely affect either the Indiana bat or the northern long-eared bat. No federally designated marine sanctuaries are located within or near the project site. The proposed project would not cause or contribute to significant degradation of waters of the U.S. The Corps has determined all appropriate and practicable steps have been taken to minimize adverse impacts of the discharge on the aquatic ecosystem.

### 7.0 General Public Interest Review (33 CFR 320.4 and RGL 84-09)

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest as stated at 33 CFR 320.4(a). To the extent appropriate, the public interest review below also includes consideration of additional policies as described in 33 CFR 320.4(b) through (r). The benefits which reasonably may be expected to accrue from the proposal are balanced against its reasonably foreseeable detriments.
7.1 All public interest factors have been reviewed and those that are relevant to the proposal are considered and discussed in additional detail. See Table 9 and any discussion that follows.

| Table 9: Public Interest Factors | Effects |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 0 \\ & \stackrel{0}{0} \end{aligned}$ |  |  | $\begin{aligned} & \mathbb{0} \\ & \frac{0}{O} \\ & \frac{\bar{O}}{0} \\ & \mathbb{Z} \end{aligned}$ | 증 $\stackrel{0}{0}$ © © © |  |
| 1. Conservation: See below for discussion. |  |  | X |  |  |  |
| 2. Economics: See below for discussion. |  |  |  |  | X |  |
| 3. Aesthetics: See below for discussion. |  |  |  | X |  |  |
| 4. General Environmental Concerns: See below for discussion. |  |  |  | X |  |  |
| 5. Wetlands: See below for discussion. |  |  | X |  |  |  |
| 6. Historic Properties: See below for discussion. |  |  |  | X |  |  |
| 7. Fish and Wildlife Values: See below for discussion. |  |  | X |  |  |  |
| 8. Flood Hazards: See below for discussion. |  |  |  | X |  |  |
| 9. Floodplain Values: See below for discussion. |  |  |  | X |  |  |
| 10. Land Use: See below for discussion. | X |  |  |  |  |  |
| 11. Navigation: See below for discussion. |  |  |  |  |  | X |
| 12. Shoreline Erosion and Accretion: See below for discussion. |  |  |  |  |  | x |
| 13. Recreation: See below for discussion. | X |  |  |  |  |  |
| 14. Water Supply and Conservation: See below for discussion. |  |  |  | X |  |  |


| Table 9: Public Interest Factors | Effects |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\text { ¢ }}{\text { ¢ }}$ |  |  |  |  |  |
| 15. Water Quality: See below for discussion. |  |  | X |  |  |  |
| 16. Energy Needs: See below for discussion. |  |  |  |  | X |  |
| 17. Safety: See below for discussion. |  |  |  | X |  |  |
| 18. Food and Fiber Production: See below for discussion. |  |  |  | x |  |  |
| 19. Mineral Needs: See below for discussion. |  |  |  | X |  |  |
| 20. Consideration of Property Ownership: See below for discussion. |  |  |  |  | X |  |
| 21. Needs and Welfare of the People: See below for discussion. |  |  |  |  | x |  |

Additional discussion of effects on factors above:
Conservation: Broadly defined, conservation is the planned management of natural resources in order to prevent or minimize exploitation, destruction, or neglect. The streams within or downstream of the project site are not listed as National Wild \& Scenic Rivers. Minimization and avoidance of impacts to natural resources were achieved in the development of the applicant's proposed project. See Section 6.7 for an evaluation of Subpart H of the Section 404(b)(1) Guidelines. The applicant proposes to permanently discharge dredged and/or fill material into 3.07 acres of wetlands and temporarily discharge of dredged and/or fill material into 3.46 acres of wetlands in association with construction of the commercial development project. Approximately 52.99 acres of wetland and 4,777 linear feet of perennial and ephemeral streams subject to regulation under Section 404 of the Clean Water Act are present within the proposed project area. Avoidance and minimization efforts were incorporated into the proposed. The proposed project has been designed to avoid $100 \%$ of on-site perennial and ephemeral streams and $94.2 \%$ of on-site wetlands. The applicant would be required to compensate for the unavoidable discharge of fill material into 3.07 acres of wetlands and the permanent conversion of forested wetland to nonforested wetlands associated with the commercial development project. Downstream aquatic resources would be protected during construction activities through the use of BMPs and implementation of storm water management systems. The effects on conservation would be minimized by conditions of the state Section 401 WQC, NPDES Permit, and any DA permit issued for the development project. As stated in Section 6.3, the proposed generating facility would use a dry air cooling system to reduce air emissions and minimize water
use during the cooling process. This air cooling technology, which can reduce water consumption by as much as $95 \%$ compared to wet cooling, has been integrated into the design of the generating facility to minimize water needs to the greatest extent possible. The Corps has determined the effect on conservation would be expected to be neutral as a result of the applicant's mitigated actions along with the obtained authorizations addressing conservation.

Economics: According to 33 CFR 320.4(q), when a private enterprise makes application for a permit, the Corps will generally assume the appropriate economic evaluations have been completed, the proposal is economically viable, and is needed in the marketplace. The applicant estimates that the intangible and capital costs would be around $\$ 1.45$ billion and the proposed facility would generate approximately $\$ 354$ million in construction labor in Guernsey County and $\$ 96$ million on other regions. If approved, the proposal would result in approximately 450-650 temporary construction jobs. Additionally, the proposal would generate approximately 25 full-time permanent jobs for operation and maintenance within the Guernsey Power Station. The construction costs, capital costs, and permanent and temporary jobs would provide directed benefits to payroll taxes paid to the state and local governments. Indirect benefits to the local economy would include the purchase of goods and services from the business community related to employment. Beneficial effects on economics would be expected as result of the proposed project.

Aesthetics: A majority of the proposed site was used for agricultural practices including cattle grazing and crop cultivation (hay fields). The site contains several structures, including three (3) residences and one (1) storage facility. The site is bounded to the west by a privately-owned railroad spur, to the north by Seneca Lane, and to the South by a sand and gravel operations. The project site currently contains a ROW for the Rockies Express pipeline and a ROW for the existing AEP 765 -kilovolt (kV) electric transmission line. Within one (1) mile of the proposed site, approximately $45 \%$ of the land is forested or open space, $37 \%$ is agricultural, while the rest is residential, industrial, or commercial land.

The visual changes resulting from the proposed development project would include the change of land use, currently occupied by agricultural and residential use, and early successional scrub-shrub and forested wetland and uplands. The proposed development would be consistent with the existing energy infrastructure land use located on site. The applicant would implement various measures to minimize effects on aesthetics. These measures include, but are not limited to, maintaining buffer zones where practicable to minimize construction impacts on adjacent housing, and limiting trucking operations for deliveries and removals as practicable to non-peak periods while avoiding noise-sensitive times. Short term effects to aesthetic impacts would be realized from the proposed construction activities associated with the development. Long term
minor effects to aesthetic impacts are expected to be realized from the proposed development project. These impacts are not expected to be significant or unacceptable. Negligible effects on aesthetics would be expected as result of the proposed project.

General Environmental Concerns: The proposed construction activities are expected to result in temporary, localized air, water and noise quality impacts. A short-term increase in traffic patterns is also expected during the construction period, with most impact occurring on public roads and during day time hours. In addition, the applicant prepared a traffic management plan that included calculations of the load and dimensional requirements for equipment transportation. No upgrades to roads and bridges are expected to be necessary; however, traffic management would be implemented during construction activities, if necessary. The applicant would implement various measures to minimize effects from construction activities and noises would be limited to daytime hours and occur away from most of the residential structures. These impacts are expected to be temporary and minor and are expected to abate upon completion of the construction activities at the site. If approved, operation of the facility would result in ongoing noise impacts experienced by residents within close range of the facility. Six (6) parks and recreational areas are located within five (5) files of the proposed facility site. They are not expected to be negatively affected by the proposed project.

The generating facility would use state-of-the-art combined cycle technology and a dry air cooling system to reduce air emissions and to minimize water used during the cooling process. As stated in Section 6.3, air cooling, which can reduce water consumption by as much as $95 \%$ compared to wet cooling, has been selected by the applicant as the preferred technology and has been integrated into the design of the generating facility to minimize water needs to the greatest extent possible.

According to the information contained in the OPSB order, dated 5 October 2017, the project site is within an area classified as attainment for all National Ambient Air Quality Standards criteria for air pollutants. If approved, the generating facility would minimize the impact on air quality through new gas turbine technology and incorporating air pollution controls. The main pollution control devices would be dry-low nitrogen burners in the gas turbines, selective catalytic reduction systems, and oxidation catalysts in the heat recovery system generators. A continuous emissions monitoring system would track all emission from the facility during operations. The proposed project has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act and a conformity determination is not required for this permit action (See Section 12.1 below for details). However, the applicant would comply with all OEPA permit requirements relative to air quality standards.

Implementation of the BMPs would be expected to minimize the extent of any sedimentation during and after construction. Procedures would be implemented
to eliminate the possibility of spills and to control dust that could enter the waterway by runoff or point source discharge. Wastes generated by construction would be disposed of in accordance with state or local requirements. All applicable environmental and health and safety regulations would be adhered to during construction of the proposed project. Contractors would be required to maintain their equipment in satisfactory condition to minimize air pollution from exhaust emissions. State and local laws regarding open burning regulations and restrictions would be followed. The applicant has provided a compensatory mitigation proposal that has been determined to be sufficient to offset the proposed impacts to waters of the U.S. Based on the previously discussed measures (See Sections 1.3.1, 1.3.2 and 8.0) to avoid, minimize and compensate for impacts to waters of the U.S., it has been determined negligible effects are expected to occur relating to general environmental concerns.

Wetlands: Three (3) wetlands would be impacted by the temporary and permanent discharge of dredged and/or fill material associated with the proposed project. Approximately $94.2 \%$ of the on-site wetlands have been avoided. To compensate for the loss of wetlands, the applicant has proposed to purchase 12.1 wetland credits from a Federally approved in-lieu fee program. With the required compensatory mitigation the proposed action would not result in cumulative loss to wetlands in the watershed or region. The Corps has determined the effect on wetlands would be expected to be neutral as a result of the applicant's compensatory mitigation.

Historic Properties: The proposed project is expected to have no effect on values such as those associated with wild and scenic rivers, National Landmarks, National Rivers, National Wilderness Areas, National Recreation Areas, National Parks, or National Monuments. Based on information obtained from applicantconducted archaeological investigations (e.g., Phase I and Phase II Archaeological Investigations) and a historic architecture reconnaissance survey, including a background literature review and a systematic survey of historic architectural resources 50 years or older, it has been determined there are properties potentially eligible for the National Register of Historic Place (NRHP) which could be directly or indirectly affected by the proposed project. Potentially eligible archaeological resources would be avoided and the applicant's agent provided information to the state historic preservation office (SHPO) that indicated the proposed project would not diminish the integrity or alter the characteristics that quality any of the historic architectural resources for national Register inclusion. Based on the aforementioned information, it has been determined the proposed project would have no adverse effect on historic properties listed or eligible for listing in the NRHP. A special condition would be incorporated into any DA permit issued for the proposed project to minimize effects on any unknown historic or archeological sites or human remains that could be uncovered during construction. See Section 11.0 for Special Conditions. Section 106 requirements under the Nation Historic Preservation Act (NHPA)
have been fulfilled. Please also see Section 10.3 for additional information. Negligible effects to historic properties are expected.

Fish and Wildlife Values: In accordance with the Fish and Wildlife Coordination Act, the Corps consulted with the USFWS and the ODNR regarding fish and wildlife matters. No comments were received in response to the consultation. No significant, direct, indirect or cumulative impacts on fish and wildlife values would occur as result of the planned activities. Based on the most recently available information concerning habitat requirements for Federally protected species and information provided by the applicant, the Corps has determined the proposed project may affect, but is not likely to adversely affect the Indiana bat and the northern long-eared bat. The proposed project, including upland areas, would require the removal of approximately 7.2 acres of woody habitat. To avoid adverse impacts to the Indiana bat and the northern long-eared bat, the applicant has proposed to implement the USFWS' proposed seasonal tree clearing restrictions (between October 1 and March 31). Under Section 7 of the ESA, the Corps requested USFWS concurrence with our "may affect, not likely to adversely affect" determination for the Indiana bat and the northern long-eared bat. The USFWS concurrence was received on 30 January 2018. See Section 10.1 for additional information. Any DA permit issued for the proposed project would include special conditions to minimize effects to fish and wildlife values, including federally or state protected species. See Section 11.0 for proposed special conditions. The Corps has determined the effects on fish and wildlife values are expected to be neutral as a result of the applicant's mitigated actions for the Indiana bat and the northern long-eared bat.

Flood Hazards: No structures intended to reduce flood risks are located on or near the site. A stormwater management system is expected to alleviate concentrated discharges of stormwater from the proposed development. The applicant's adherence to the requirements of any State issued storm water permit would ensure minimal downstream flood attenuation. Negligible effects on flood hazards would be expected to occur as a result of the development project.

Floodplain Values: Based upon the Federal Emergency Management Agency (FEMA) mapping, a portion of the site lies within the Zone AE, which includes areas within the 1-percent annual chance flood, also referred to as the base flood or 100-year flood. The applicant coordinated with the local and state floodplain agencies. In a letter dated 6 December 2017, the Guernsey County Highway Department, the local floodplain agency, stated that major utility facilities that require permitting through the OPSB are exempt from filing a Floodplain Development Permit, per section 3.9(c) of the Guernsey County Flood Development Regulations, and no application or subsequent permit is required. Per Condition 20 of the OPSB approval, the applicant filed the 6 December 2017 correspondence from the Guernsey County Engineer with the OPSB. In addition, the applicant indicated that stormwater management systems would appropriately address site runoff such that site flow are appropriately handled
and location flooding is not exacerbated. The proposed project, in association with cumulative impacts from similar activities, would not be expected to result in any significant degradation of floodplain values and functions and should not have any adverse impact to potential flooding. Any DA permit issued for the proposed project would include a special condition to ensure compliance with federal, state or local floodplain requirements. See Section 11.0 for proposed special conditions. We have fully considered the requirements of Executive Order (EO) 11988. Negligible effects on floodplain values would be expected to occur as a result of the development project.

Land Use: The proposed project site has previously been utilized for residential, agricultural, and industrial use (sand and gravel operations located south of the project). The proposed project would result in a change to the existing land uses of the site. Any development on the proposed action site would have to meet county zoning requirements and the proposed action would be consistent with adopted land use plans in the area. Under 33 CFR $320.4(\mathrm{j})(2)$, the primary responsibility of determining zoning and land use matters rests with Tribal, state, and local governments and the Corps must normally accept those decisions. Implementation of the proposal is not expected to unacceptably alter the land use of this area and the proposed project is not inconsistent with the surrounding land use. There are no significant issues of overriding national importance associated with the proposed action. Negligible effects on land use would be expected to occur as a result of the development project. Therefore, there is no impact to land use.

Navigation: This proposal would not occur in a navigable water of the U.S.
Shoreline Erosion and Accretion: No shoreline modifications are proposed.
Recreation: Six (6) parks and recreational areas are located within five (5) miles of the proposed facility site. They are not expected to be negatively affected by the proposed project. No public, scenic or recreational facilities are present within the project site or immediate vicinity. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the immediate vicinity. See Section 6.4.3 for additional information. No effects on recreation would be expected to occur as a result of the proposed project.

Water Supply and Conservation: Construction of the electricity generating facility would not be expected to adversely affect groundwater supplies. The proposed project would not be located near any municipal water supply. As stated in Section 6.3, air cooling, which can reduce water consumption by as much as $95 \%$ compared to wet cooling, has been selected by the applicant as the preferred technology and has been integrated into the design of the generating facility to minimize water needs to the greatest extent possible. The applicant has obtained an individual Section 401 WQC and is required to comply with the NPDES program. These authorizations are granted by the OEPA
after a determination is made the proposed project contains sufficient measures to ensure that WQS will be maintained downstream of the project area and NPDES effluent limits will be met in discharges from the project area. These permits help guard against impairment levels affecting designated uses. See Sections 6.3, 6.4.3, 6.7 and 6.8 for additional information. Negligible effects on water supply and conservation would be expected to occur as a result of the proposal.

Water Quality: Increases in total suspended solids are expected from the removal of existing vegetation and the presence of loose, disturbed, uncompacted soils during construction. The proposed dredged and/or fill material would not affect the general water quality of the area. The use of BMPs and SWPPP is expected to prevent pollutants in storm water runoff from impacting downstream waters. 33 CFR 320.4(d) provides that a state's certification of compliance with applicable effluent limitations and water quality standards will be conclusive with respect to water quality considerations unless the USEPA advised the district engineer of other water quality aspects that should be examined. The USEPA has not advised of other water quality aspects to be taken into consideration on this project. Pursuant to Section 401 of the Clean Water Act, the OEPA is responsible for ensuring water quality standards are maintained throughout the State of Ohio. Acute and chronic water quality standards have been instituted by the State of Ohio to be protective of human health and the environment regarding both individual and cumulative impacts. The OEPA has issued a Section 401 WQC for the proposed project and has found the project would not degrade water quality. Certification of compliance with applicable effluent limitations and water quality standards required under provision of Section 401 of the Clean Water Act are considered to be conclusive with respect to water quality considerations unless the Regional Administrator, the USEPA, advises of other water quality aspects to be taken into consideration. The Regional Administrator of the USEPA did not advise the Corps of any water quality aspects to be taken under consideration. See Sections 6.3, 6.7, and 6.8 for additional information. The effects on water quality would be minimized by conditions of the state 401 WQC, NPDES Permit and any DA permit issued for the development project. The Corps has determined the effect on water quality would be expected to be neutral as a result of the applicant's mitigated actions along with the obtained authorizations addressing water quality.

Energy Needs: The ultimate purpose of the proposed project is energy production by means of electricity generation. In accordance with 33 CFR $320.4(\mathrm{n})$, District Engineers will give high priority to the processing of permit actions involving energy projects. Under Presidential EO 13212, dated 30 July 2001, all Federal agencies have been directed to expedite the review of permit actions involving energy-related projects. The OPSB issued an order on 5 October 2017 for the proposed facility. The order was based on the OPSB's determination of the basis of need for the facility and that the facility would be consistent with regional plans for the electric power grid and would service the
interested of electric system economy and reliability, in addition to other factors considered. If approved, the generating facility to help meet energy demands in southeastern Ohio, by providing additional base load and peaking capacity via the natural gas-fired combined cycle technology. The proposed project would result in beneficial effects on energy needs.

Safety: The applicant is required to conduct project activities in accordance with federal and state regulations and established local ordinances to minimize impacts on adjacent populations, housing, businesses and community services. The applicant would ensure the contractors utilized to construct the commercial development would maintain proper safety procedures. Additionally, the site selection criteria included safe access for site access and equipment access. Negligible effects on safety would be expected as result of the proposed project.

Food and Fiber Production: Federal agencies that authorize actions that result in the conversion of prime or unique farmland not already committed to urban development or water storage are responsible for compliance with the Farmland Protection Policy Act (7 U.S.C. 4201). The proposed project site would no longer be available for agricultural use. Much of Ohio remains as active cropland. However, the continued development of agricultural land into other uses may have a cumulative negative impact on the production of crops in this area. Because this is a small site in relation to those areas that would remain as agricultural lands, the long-term sustainability of agriculture in the area would likely be assured. Land use changes related to general growth in the region could be expected to result in losses of agricultural lands in the future. However, this proposal is not expected to adversely affect the food and fiber production.

Mineral Needs: The fill material required to construct the proposed project would be obtained from off-site commercial sources. Negligible effects to mineral needs are expected as a result of the proposed project.

Consideration of Property Ownership: The applicant has an option agreement for the three (3) properties proposed to be developed for the generating facility. Upon financial closure, the applicant would purchase the three (3) properties. The applicant owns the subject property on which the proposed utility substation would be constructed and operated. The applicant has a signed lease for the laydown area north of Seneca Lane that would begin at financial closure. The lease would terminate following completion of the temporary construction use of the property. The applicant has signed permanent easement agreements for the access road to the substation and for the transmission lines running from the northern property to the southern property. These easements would be recorded at financial closure.

The project would have benefits to the applicant's right to property ownership and the landowners associated with the lease agreements and the permanent easements. Adjacent property owners were notified of the proposed project via
public notices issued under Section 404 of the Clean Water Act and public meetings and hearings were conducted by the applicant in association with the OPSB approval process. No existing public bridges, parks, recreation areas, schools or water supplies would be acquired, relocated, removed, or otherwise substantially affected by the development. There are no federal projects in or near the vicinity of the proposal; therefore, there would be no effect to any Federal Project. ( 33 CFR 320.4 (g)(5)). The project is not expected to have an adverse impact on the property rights of others. The project is expected to have a beneficial effect on consideration of property rights.

Needs and Welfare of the People: The proposed project is expected to have no appreciable effects on human use characteristics such as municipal and private water supplies, recreational and commercial fisheries and water-related recreation and no effects on local, state or national parks. See Section 6.4.3 and 6.7 for additional discussion. There would be some temporary impacts to local traffic as heavy construction equipment is moved into and around the construction site. Additionally, traffic management would be implemented during the construction activities, if needed. The information discussed below supports the Corps' environmental justice determination stated in Section 12.2.3. Socioeconomic and demographic data (See Enclosure 2) were gathered to determine the existing demographic characteristics of the population potentially impacted by the proposed project. Based upon the provided information, no lowincome or minority communities are located within the development area. Guernsey County, Ohio and the State of Ohio would receive tax revenues from the property taxes generated from the construction activities. The proposed project is anticipated to provide construction job opportunities and permanent job opportunities as indicated above under "Economics" and to ensure public safety. The project is anticipated to provide electrical energy for distribution to the regional and national electric grid using natural gas as fuel and the OPSB has issued an order for the proposed generating facility. The project is expected to have a beneficial effect on needs and welfare of the people.

Additional discussion of effects on factors above: N/A
7.1.1 Climate Change. The proposed activities within the Corps federal control and responsibility likely will result in a negligible release of greenhouse gases into the atmosphere when compared to global greenhouse gas emissions. Greenhouse gas emissions have been shown to contribute to climate change. Aquatic resources can be sources and/or sinks of greenhouse gases. For instance, some aquatic resources sequester carbon dioxide whereas others release methane; therefore, authorized impacts to aquatic resources can result in either an increase or decrease in atmospheric greenhouse gas. These impacts are considered de minimis and are negated through compensatory mitigation. Greenhouse gas emissions associated with the Corps federal action may also occur from the combustion of fossil fuels associated with the operation of construction equipment, increases in traffic, etc. The Corps has no authority to
regulate emissions that result from the combustion of fossil fuels. These are subject to federal regulations under the Clean Air Act and/or the Corporate Average Fuel Economy (CAFE) Program. Greenhouse gas emissions from the Corps action have been weighed against national goals of energy independence, national security, and economic development and determined not contrary to the public interest.
7.2 The relative extent of the public and private need for the proposed structure or work: The purpose of the proposed project is to construct an electric generating facility and an interconnection substation facility. The proposed Guernsey Power Station would provide a generating facility to help meet energy demands in southeastern Ohio, by providing additional base load and peaking capacity via the natural gas-fired combined cycle technology. The applicant indicated the project would provide economic growth and employment in Guernsey County, Ohio.
7.3 If there are unresolved conflicts as to resource use, explain how the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work was considered.

Discussion: There were no unresolved conflicts identified as to resource use.
7.4 The extent and permanence of the beneficial and/or detrimental effects that the proposed work is likely to have on the public and private use to which the area is suited:

Detrimental effects are expected to be minimal and temporary.
Beneficial effects are expected to be more than minimal and permanent.
8.0 Mitigation(33 CFR 320.4(r), 33 CFR Part 332, 40 CFR 230.70-77, 40 CFR 1508.20 and 40 CFR 1502.14)
8.1 Avoidance and Minimization: When evaluating a proposal including regulated activities in waters of the United States, consideration must be given to avoiding and minimizing effects to those waters. Avoidance and minimization measures are described above in Sections 1 and 3.

Were any other mitigative actions including project modifications discussed with the applicant implemented to minimize adverse project impacts? (see 33 CFR 320.4(r)(1)(i)) No
8.2 Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the United States? Yes

Provide rationale: Compensatory mitigation is required to offset the permanent loss of 3.07 acres of wetlands and the permanent conversion of 1.8 acres of forested wetlands to non-forested wetlands.

### 8.3 Type and location of compensatory mitigation

8.3.1 Is the impact in the service area of an approved mitigation bank? Yes A search in the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) indicates the impact site is located within the secondary service area of five (5) mitigation banks (MB) including Big Darby Hellbranch MB, Great Miami MB, Little Scioto Phase II MB, Red Stone Farm MB, and Shannon Valley MB (see attached). Based on a review of the information available in RIBITs and reviewing the language in the instruments and/or service area maps, it was determined that Shannon Valley MB is the only MB with a primary service area for Category 2 impacts that covers the impact site. The Big Darby Hellbranch MB, the Great Miami MB, the Little Scioto Phase II MB, and the Red Stone Farm MB do not have listed secondary service areas; therefore, they would not be appropriate for use as compensatory mitigation for Category 2 impacts.

If yes, does the mitigation bank have appropriate number and resource type of credits available? No

According to RIBITS, the Shannon Valley MB has 0.6 acre of wetland credits. However, per correspondence provided by the agent 8 February 2018, the agent contacted the Shannon Valley bank sponsor on 5 February 2018 and the bank sponsor indicated they do not have wetland credits available.
8.3.2 Is the impact in the service area of an approved in-lieu fee program? Yes

If yes, does the in-lieu fee program have the appropriate number and resource type of credits available? Yes

There are two in-lieu fee programs that service the impact site (Stream + Wetlands In-Lieu Fee and The Nature Conservancy's Ohio Stream and Wetland In-Lieu Fee Program. According to RIBITS, wetland credits are not available at the Stream + Wetland In-Lieu Fee. The Nature Conservancy's In-Lieu Fee Program has wetland credits available. However, the applicant contacted the Stream + Wetland In-Lieu Fee sponsor and were informed that they have wetland credits available.

The compensation planning framework for the banking instrument for Stream + Wetlands Foundation In-Lieu Fee states that Stream +Wetland Foundation will provide compensatory mitigation for permitting impacts within the same 8-digit

HUC in which the impacts occur, or, with approval, within the secondary geographic service area. Therefore, satisfying the compensatory mitigation requirements with credits purchased from the Stream + Wetland Foundations InLieu Fee would be acceptable compensatory mitigation.
8.3.3 Selected compensatory mitigation type/location(s). See Table 10:

| Table 10-Mitigation Type and Location |  |
| :--- | :---: |
| Mitigation bank credits |  |
| In-lieu fee program credits | X |
| Permittee-responsible mitigation under a watershed approach |  |
| Permittee-responsible mitigation, on-site and in-kind |  |
| Permittee-responsible mitigation, off-site and/or out of kind |  |

8.3.4 Does the selected compensatory mitigation option deviate from the order of the options presented in §332.3(b)(2)-(6)? No

If yes, provide rationale for the deviation, including the likelihood for ecological success and sustainability, location of the compensation site relative to the impact site and their significance within the watershed, and/or the costs of the compensatory mitigation project (see 33 CFR §332.3(a)(1)): N/A
8.4 Amount of compensatory mitigation:

| Type of Wetland <br> Impact | Acreages of <br> Proposed Fill | Mitigation <br> Ration | Required <br> Wetland Credit |
| :--- | :---: | :---: | :---: |
| Forested | 2.77 | $2.5: 1$ | 7.0 |
| Non-Forested <br> Wetland | 0.304 | $2: 1$ | 0.6 |
| Conversion from <br> Forested to Non- <br> Forested Wetland | 1.8 | $2.5: 1$ | 4.5 |

*Per ORAM, all wetlands were determined to be modified Category 2.

Rationale for required compensatory mitigation amount: Ratios based on OAC 3745-154 as shown in the table below. The applicant proposed to offset the proposed permanent conversion of forested to non-forested wetlands at a $2.5: 1$ ratio. The Corps has determined the applicant's compensatory mitigation proposal is acceptable

OAC 3745-1-54 Anti-degradation Wetland Mitigation Ratios

| Wetland <br> Category | Mitigation Ratio | Off-site | Mitigation Ratio | Replacement |
| :---: | :---: | :---: | :---: | :---: |
| Category | Mitigation |  |  |  |
| Location (Off-site) |  |  |  |  |


| 1 | $1.5: 1$ Non-forested <br> $1.5: 1$ Forested | $1.5: 1$ Non-forested <br> $1.5: 1$ Forested | 2 or 3 | Within Corps <br> District |
| :---: | :---: | :---: | :---: | :---: |
| 2 | $1.5: 1$ Non-forested <br> $1.5: 1$ Forested | $2: 1$ Non-forested <br> $2.5: 1$ Forested | 2 or 3 | Within watershed |
| 3 | $2: 1$ Non-forested <br> $2.5: 1$ Forested | $2.5: 1$ Non-forested <br> $3: 1$ Forested | 3 | Within watershed |

### 9.0 Consideration of Cumulative Impacts

(40 CFR 230.11(g) and 40 CFR 1508.7, RGL 84-9) Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor direct and indirect but collectively significant actions taking place over a period of time. A cumulative effects assessment should consider how the direct and indirect environmental effects caused by the proposed activity requiring DA authorization (i.e., the incremental impact of the action) contribute to cumulative effects, and whether that incremental contribution is significant or not. .

The Corps has considered: the area in which the cumulative effects would be felt; the impacts that are in that area from the proposed project; other past, present and reasonably foreseeable actions that have or are expected to have impacts in the area; the impact or expected impacts from these other actions; and the overall impact that can be expected if the individual impacts are allowed to accumulate. The projected wetland fills are based upon identified permit boundaries, stream and wetland delineation, available mapping, and other information included in the applicant's DA application materials. The Corps has considered how past activities have historically affected and may continue to detrimentally affect the valued ecosystem components (common resources, ecosystems, and human communities). The past and present activities resulting in impacts to waters of the U.S. were based on the Corps' OMBIL Regulatory Module (ORM) database as well as administrative records. The Corps also considered information on all other relevant activities in the cumulative impact area, actions of other federal agencies, actions of state and local governments, and private actions that are reasonably expected to occur.

Cumulative impacts occur on common resources, ecosystems and human communities. This assessment addresses the accumulation of impacts to valued ecosystem components, together with discharges of dredged and/or fill material into waters of the U.S. that would occur in association with the project. The environmental sustainability of the affected valued ecosystem components will be used to assess the importance or significance of the cumulative impacts associated with the discharges of dredged and/or fill material into waters of the U.S. The USEPA (1999) defines the term "ecologically sustainable" as a system that supports biological processes, maintains its level of biological productivity, functions with minimal external management, and repairs itself when stressed.

To determine how the project would affect the resource's ability to sustain itself, the Corps considers "...how conditions have changed over time and how they are likely to change in the future without the proposed action"(CEQ, 1997). The goal of this assessment is to evaluate the incremental effect of the proposed action and how it will alter the sustainability of the resource in light of other effects (including those actions completely unrelated to the proposed action) that the resource has experienced up until the present and/or will experience in the future.

The following information is being documented to give a reasonable estimate of cumulative impacts to the aquatic and human environment related to past, present and reasonably foreseeable future activities. Many streams, wetlands, and associated upland habitats in the region have been modified from their natural state due to residential, commercial, and industrial developments, as well as transportation activities.
9.1 Identify/describe the direct and indirect effects caused by the proposed activity: Per 40 CFR 1508.8, direct effects are caused by the action (i.e., regulated activities in waters of the U.S.) and occur at the same time and place; indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

The proposed project has been designed to avoid, minimize and compensate for anticipated adverse effects. Direct effects associated with the proposed project would include the permanent discharge of dredged and/or fill material into 3.07 acres of wetlands and the temporary discharge of dredged and/or fill material into 3.46 acres of wetlands. Compensatory mitigation has been proposed for all direct effects to aquatic resources. See Section 9.0 for additional information.

Indirect effects on the ecosystem resulting from the discharge of fill material would include changes to the aquatic ecological resources, riparian and terrestrial ecological resources, and land use changes. Indirect effects to aquatic ecological resources would largely result from direct changes in the wetland system from the regulated activities and the potential for increased run-off and siltation during periods when soils are exposed during construction. Temporary measures would be employed to minimize any increase in suspended solids and turbidity. Indirect effects to riparian and ecological resources would largely result from the land use change of existing site to an electricity generating facility. No significant secondary effects are expected.
9.2 The geographic scope for the cumulative effects assessment is:

Watersheds are a clearly-defined unit of land that represents the area drained by a stream and all its tributaries. The watershed approach is useful because it focuses more specifically on drainage patterns, water quality, and aquatic ecosystems. The Council for Environmental Quality's (CEQ) 1997 Handbook entitled "Considering Cumulative Effects Under the National Environmental

Policy Act" has suggested watershed boundaries are useful for conducting cumulative effects analysis because pollutants and materials released in the watershed may travel downstream to be mingled with other pollutants and materials and resource agencies may have basin-wide management and planning goals.

The project area is located within the Trails Run-Wills Creek (HUC 050400050207), an approximately 23.98 square mile ( 14,720 acres) watershed. The watershed contains areas of land that have been impacted by urbanization and suburbanization within this region of Ohio.

### 9.3 The temporal scope of this assessment covers:

The timeframe for the cumulative effects analysis includes the past, present and reasonably foreseeable future. The temporal scope of the cumulative effect analysis covers the previous 23 years. This timeframe was chosen based on the fact the first record for a Corps authorization in the ORM database within the cumulative impact area was in 1995. The present indicates the current time. In determining how far into the future to analyze cumulative effects, the CEQ suggests the time frame of the project-specific analysis should be considered. The reasonably foreseeable future has been defined as five (5) years after the issuance of the DA permit and the Corps has attempted to identify actions that could reasonably be expected to occur within that period. This timeframe would allow for the completion of the project and other reasonably foreseeable future projects.

Reasonably foreseeable future actions affecting the same valued ecosystem components and overlap in a geographic and/or temporal manner with the anticipated impacts from the applicant's proposed action may include actions of other federal agencies, actions of state and local governments, and private actions. The identification of the effects of past actions is critical to understanding the environmental conditions of the project and cumulative impact area. Present actions include both ongoing, past, and new actions that may be in the construction phase. These present actions include current Corps authorized activities within the cumulative impact area and current resource management programs, land use activities, and development projects that are being implemented by other governmental agencies and the private sector. Past actions are actions within the cumulative impact area that are under consideration that occurred before the current proposal. These include past actions in the project area, and past demographic, land use and development trends in the areas that surround the project area. Identification of past and present actions was aided by the Corps' ORM database and interpretation of aerial imagery. Past and present actions that have resulted in the existing conditions in the cumulative impact area include agricultural land use, residential developments, industrial and/or commercial developments, recreational developments, municipal developments, and development and expansion of transportation systems.

Projecting the reasonably foreseeable future actions is challenging. Actions by others that may affect the same resources are not clear. Projections of those actions must rely on judgment as to what is reasonable based on existing trends and, where available, projections from qualified sources. Reasonably foreseeable does not include unfounded or speculative projections. Reasonably foreseeable future actions include potential actions that are beyond speculation when incorporated in plans or documents by credible private or public entities. Reasonably foreseeable future actions may include events forecasted by trends, probable occurrences, polices, regulations or other credible data that may have bearing on valued ecosystem components. The Corps has used the best available information to predict future actions that might reasonably be expected to occur as a result of the proposal. Reasonably foreseeable future actions identified by analysis for formal plans and proposals by public and private entities that have primary (direct) or secondary (indirect) impacts within the cumulative impact area include:
-The proposed electricity generating facility project;
-Continuation of existing land use patterns (industrial, municipal, residential, recreational, and commercial);
-Continued human use (i.e. residential areas, recreational areas, industrial areas, commercial areas, roads);
-implementation of various programs to deal with non-point sources of water pollution (i.e., OEPA-TMDLs); and -implementation of aquatic ecosystem restoration projects and/or conservation initiatives.

Cumulatively, the past, present and reasonably foreseeable future actions involve the temporary discharge of dredged and/or fill material into 3.46 acres of wetlands and the permanent discharge of dredged and/or fill material into 3.07 acre of wetlands within the Trails Run-Willis Creek watershed (050400050207). If other future actions are proposed that require Corps authorization, the Corps would evaluate and consider the impacts of those particular actions on waters of the U.S. and uplands within its scope under the circumstances particular to that action. Before approving any proposed project, appropriate mitigation measures would be required by the Corps to reduce or avoid any significant effects and the cumulative effects would be assessed.

### 9.4 Describe the affected environment:

The goal of characterizing the valued ecosystem components and their response to stresses is to determine whether the resources, ecosystems, and human communities of concern are approaching conditions where additional stresses would have an important cumulative effect. As indicated above, the project site is located within the Trails Run-Willis Creek watershed (HUC 050400050207) of the Muskingum watershed. Based upon the Corps' Cumulative Effects Analysis

Report, the Trails Run-Willis Creek watershed is comprised of the following land uses:

| FEATURE | Trails Run-Willis HUC 12: <br> 050400050207 |
| :--- | :--- |
| Area of the Feature (Sq. Km) | 59.52 |
| Impervious Cover (2011) | $4.966 \%$ |
| LC11 - Open Water (2011) | $1.479 \%$ |
| LC21 - Developed, Open Space (2011) | $13.891 \%$ |
| LC22 - Developed, Low Intensity (2011) | $5.812 \%$ |
| LC23 - Developed, Medium Intensity (2011) | $2.283 \%$ |
| LC24 - Developed, High Intensity (2011) | $0.693 \%$ |
| LC31 - Barren Land (2011) | $0.151 \%$ |
| LC41 - Deciduous Forest (2011) | $48.105 \%$ |
| LC42 - Evergreen Forest (2011) | $0.569 \%$ |
| LC43 - Mixed Forest (2011) | $0.011 \%$ |
| LC52 - Shrub/Scrub (2011) | $0.086 \%$ |
| LC71 - Grassland/Herbaceous (2011) | $1.574 \%$ |
| LC81 - Pasture/Hay (2011) | $12.299 \%$ |
| LC82 - Cultivated Crops (2011) | $11.888 \%$ |
| LC90 - Woody Wetlands (2011) | $1.03 \%$ |
| LC95 - Emergent Herbaceous Wetlands | $0.13 \%$ |

Aquatic ecological resources include streams and associated aquatic and riparian habitat and wetlands. Residential, commercial, and industrial developments and road construction have adversely affected aquatic ecological resources within the cumulative impact area. As indicated above, approximately $27.645 \%$ (impervious cover and developed space) of the Trails Run-Willis Creek watershed is developed and $24.187 \%$ (pasture/hay and cultivated crops) has been affected by agricultural activities.

Slope has a significant impact on the health of streams and other natural systems. Development has historically disrupted the slopes' natural processes, exacerbated erosion and reduced the pervious surface area. The location and concentration of slopes in the forms of hills, ridges, valley and floodplains has forced some of the watershed's non-residential development into corridors or clusters. Development areas contain many impervious surfaces, such as streets and parking lots that increase the amount of runoff. Residential, commercial, and industrial developments and roads also increase nutrients and organic waste, sediment loads and result in removal of riparian forest vegetation.

Vegetative cover is important to retain because it performs environmental functions that protect or improve water quality. Vegetation impedes stormwater flow, thereby slowing runoff, increasing absorption, reducing erosion, and limiting sedimentation in concert with topography and soil characteristics. Removal of a
watershed's vegetative cover typically coincides with a loss of natural habitat, an increase of impervious surface, and the compaction of soils by heavy equipment. These changes usually reduce evapotranspiration, increase stormwater runoff, intensify pollutant loads in the runoff, increase runoff channeling, increase erosion, and degrade stream geomorphology.

Riparian and terrestrial resources have been adversely affected by the development activities within the cumulative impact area. Loss of wildlife habitat, loss of species and biodiversity, and introduction of invasive species are among the consequences of such changes. Slope failures have likely overloaded the stream channels with sediment or scoured them, both of which have created less diverse habitat. The removal of trees and shrubs promotes erosion and the runoff of soil, herbicides, and pesticides, all of which harm the aquatic environment. As indicated above, approximately $48.685 \%$ of the Trails RunWillis Creek watershed remains forested

The major stressors affecting the aquatic ecosystem are nutrient enrichment, siltation, organic enrichment, pathogens, habitat alterations, and metals. Pollution sources in the watershed include home sewage treatment systems, commercial and residential development, urban runoff, and sewage disposal. The greatest stressor affecting the terrestrial ecosystem are the physical alterations associated with conversion of forested land to other uses. Significant stressors affecting the Trails Run-Willis Creek watershed include organic enrichment, sedimentation, and habitat loss. Approximately $4.966 \%$ of the Trails Run-Willis Creek watershed includes impervious cover which contributes heavily to the input of various contaminants.

The Corps' regulatory authority for this project is for the discharge of dredged and/or fill material into waters of the U.S. While some of the activities described above fall within the Corps regulatory purview, the majority of the activities, including non-point source discharges, are not regulated by the Corps. Some non-point source discharges such as sedimentation and agricultural runoff into streams are unregulated, and therefore much more difficult to control than point source discharges. The OEPA administers the NPDES program under OAC 3745 for facilities discharging pollutants from point sources into waters of the U.S. Pollutants are broadly defined as any type of industrial, municipal or agricultural wastewater. Point sources may include publicly owned treatment works, industrial facilities, and urban runoff. Each NPDES facility is required to monitor their discharges according to sampling and monitoring conditions specified in their NPDES permit and report results to the OEPA on a monthly basis. Local health districts that issue permits for private sewage treatment systems must ensure all sewage component tanks utilized within their jurisdiction comply with these provisions.

Other known activities within the cumulative impact area that could result in adverse effects to aquatic resources and terrestrial habitats include natural gas
exploration, road construction, utility installation and maintenance, urban development, and agricultural activities. These activities could result in the loss of aquatic resources and terrestrial habitats, and result in various alterations within the cumulative impact area. While some of these activities may require authorization from the Corps, the OEPA, or other regulatory authorities, it is reasonable to expect these activities would continue to occur within the watershed in compliance with the regulatory requirements that have been designed to protect these environmental resources.

Regulatory Thresholds: Federal laws require government approval prior to beginning any work in or over waters of the U.S. that affects the course, location, condition, or capacity of such waters, or prior to discharging dredged or fill material into waters of the U.S. Permits issued by the Corps authorize various types of development projects in wetlands and other waters of the U.S. The Corps' regulatory process involves two types of permits: general permits for actions by private landowners that are similar in nature and will likely have a minor effect on wetlands, and individual permits for more significant actions.

General permits (GPs), including Nationwide Permits (NWPs) and Regional GPs are designed to authorize certain activities that have minimal adverse effects on the aquatic environment, individually and cumulatively, and generally comply with the related laws cited in 33 CFR 320.3. Activities that result in more than minimal adverse effects on the aquatic environment, individually or cumulatively, cannot be authorized by NWPs and RGPs. Individual review of each activity authorized by an NWP and RGPs will not normally be performed, except when preconstruction notification to the Corps is required or when an applicant requests verification that an activity complies with an NWP or a RGP. Potential adverse impacts and compliance with the laws cited in 33 CFR 320.3 are controlled by the terms and conditions of each NWP, regional and case-specific conditions, and the review process that is undertaken prior to the issuance of NWPs. The evaluation of a particular NWP and RGP, and related documentation, considers compliance with numerous laws, where applicable, including Section 401, 402 and 404 of the Clean Water Act, the NEPA, the Fish and Wildlife Act of 1956, the Fish and Wildlife Coordination Act, the Federal Power Act of 1920, as amended, the NHPA, the ESA, the Bald and Golden Eagle Protection, and the Migratory Bird Treaty Act. In addition, compliance of a NWP and RGP is considered with other Federal requirements, such as EOs and Federal regulations addressing issues such as floodplains and critical resource waters.

About 90\% of the Corps' regulatory workload is processed in the form of GPs. Many NWPs have specific conditions and terms (such as maximum limitations for wetland and stream acreage, stream length, and cubic yards discharged below the ordinary high water mark). In addition, a number of general conditions apply to some or all NWPs; for example, no activity may cause more than a minimal adverse effect on navigation; no activity may jeopardize a threatened or endangered species; discharges into spawning areas and migratory waterfowl
breeding areas must be avoided, to the maximum extent practicable; and discharges of dredged or fill material must be minimized or avoided through mitigation to offset more than minimal impacts on the aquatic environment, to the maximum extent practicable.

The Corps' regulations do not provide threshold values that define significance for standard permits. Instead, the Corps uses the Section 404(b)(1) guidelines to evaluate the discharge of dredged and/or fill material into waters of the U.S., including wetlands. Please reference Sections 6.0 of the combined decision document for the project's compliance with the Section 404(b)(1) guidelines. Other thresholds in the Regulatory Program include whether the proposed project would: be compatible with a congressionally authorized Federal project; interfere with navigation (33 CFR 325.8); compromise national security; and be contrary to the public interest. The proposed project would have no effect to federal projects (Section 10.8.1), would not interfere with navigation (Section 7.1), and would not be contrary to the public interest (Section 7.0 and 12.5).

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. See Section 7.1 of combined decision document for the Corps evaluation of the relevant public interest factors.

Based upon a review of the finalized actions within the Trails Run-Willis Creek 12 digit HUC (050302020101), the Corps permits for the period of 1995 to present day have authorized the temporary and permanent discharge of dredged and/or fill material into 100 linear feet ( 0.002 acre) of stream, 985 linear feet ( 0.021 acre) of jurisdictional ditch, and 0.854 acre of wetlands under the Corps' NWP Program:

- One project was authorized under NWP 3 for the discharge of fill material into 0.001 acre of forested wetland for maintenance activities associated with the removal and installation of electrical transmission utility poles;
- One project was authorized under NWP 12 for the temporary discharge of dredged and/or fill material into 1,085 linear feet of jurisdictional ditch, 100 linear feet of stream, and 0.63 acre of wetland
for utility line activities associated with the installation of a sanitary sewer line;
- Two projects were authorized under NWP 26 for the discharge of fill material into 0.73 acre of wetland for activities associated with commercial development; and
- One project was authorized under NWP 39 for the discharge of fill material into 0.06 acre of wetland for activities associated with commercial development.

The projects within the cumulative impact area and temporal scope were authorized under the Corp's NWP Program. The NWPs are a type of general permit designed to authorize certain activities that have minimal adverse effects on the aquatic environment and generally comply with the related laws cited in 33 CFR 320.3, as described above. Activities that result in more than minimal adverse effects on the aquatic environment, individually or cumulatively, cannot be authorized by NWPs. Individual review of each activity authorized by an NWP will not normally be performed, except when pre-construction notification to the Corps is required or when an applicant requests verification that an activity complies with an NWP.

The Corps does not have any information indicating that authorizations will increase within the Trails Run-Willis Creek watersheds. Natural resource issues of particular concern [from Corps \& non-Corps activities] are protection of aquatic resources (i.e. streams, wetlands, riparian areas, water quality, and fish and wildlife values) and the functions and values that they provide.

### 9.5 Determine the environmental consequences:

While proposed direct losses of aquatic resources and terrestrial habitats have been estimated, indirect effects on these resources and the specific functions of a given environmental resource may be removed in both distance and time from the proposed project footprint, and may be triggered by effects on other resources that function as integral parts of a larger system.

The Corps is unaware of any studies, for example, that would suggest the proposed project, if authorized, would result in stream and wetland losses that would lower the level of water quality enough to overburden the aquatic ecosystem, beyond what the system has already endured in view of existing stresses within the cumulative impact area. In this regard, the Corps has chosen to rely upon OEPA's Section 401 WQC to ensure potential adverse effects to water quality are minimized, and that the proposed fill activity meets all water quality standards.

Regarding terrestrial habitat, the Corps is unaware of any studies that have examined the rate of forested habitat loss within the cumulative impact area, and whether the proposed loss of this resource due to project construction would overstress terrestrial resources beyond a tipping point. The Corps defers to and
relies on the ODNR and the USFWS for effects to wildlife. The proposed project, including upland areas, would require the removal of approximately 7.4 acres of wooded habitat (forested and scrub-shrub habitat) in order to facilitate construction of the overall project. The Corps has determined the proposed project may affect, but is not likely to adversely affect the Indiana bat and northern long-eared bat and consulted with the USFWS under Section 7 of the Endangered Species Act. See Section 10.1 for additional information.

BMPs would be implemented during and after construction at the site to ensure that, both individually and cumulatively, there would be no significant degradation of water quality on-site and downstream of the project site. Construction of the proposed project would result in changes to the landscape, but should not alter sustainability of the current state of fish and wildlife. Short term water quality impacts to the impacted wetlands are possible during project construction. These impacts would be primarily related to increased suspended and deposited sediments. Overall long term decreases to water quality are not anticipated due to the implementation of a storm water management plan.

The proposal includes the temporary discharge of fill material into 3.46 acres of wetlands and the permanent discharge of fill material into 3.07 acres of wetlands. The applicant would be required to compensate for the unavoidable discharge of fill material into waters of the U.S. associated with the proposed project. The applicant proposes to purchase wetland credits from a Corps approved in-lieufee program. Future development conditions are expected to be similar with a possible increase in urban and suburban development as a result of conversion of vacant and forested lands to residential, industrial, and commercial developments.

Reasonably foreseeable future actions can also be expected to produce both beneficial and adverse effects. In this context, the incremental effects from the proposed project are relatively minor. Resulting natural resource changes and stresses include cumulative loss of stream, loss of riparian and upland vegetative cover, reduced habitat, and negative effects on stream physical, chemical and biological functions. These resources are also being affected by residential developments, industrial developments, commercial developments, recreational developments, municipal developments, and development and expansion of transportation systems.

The magnitude and extent of the effect on a resource depend on whether the cumulative effects exceed the capacity of the resource to sustain itself and remain productive. The Corps determined the magnitude of the proposed effect in the context of the cumulative effects of other past, present and future actions is not considered unacceptable within the watershed.

This action could guide decisions regarding other development adjacent to the project area. However, if additional development is proposed in the future that
includes the discharge of dredged and/or fill material into waters of the U.S., the Corps would evaluate and consider the impacts of that particular development on waters of the U.S. and uplands within its Scope of Analysis under the circumstances particular to that development. Before approving any proposed project, appropriate mitigation measures would be required by the Corps to reduce or avoid any unacceptable effects and the cumulative effects would be assessed.

The Corps has completed a cumulative effects evaluation for the proposed work. This evaluation thoroughly evaluated all available resources pertaining to past, present and reasonably foreseeable disturbances in the affected watershed. Considering the nature of the facility and applicant adherence to the Corps permit and its accompanying special conditions, no unacceptable cumulative impacts on the environment would be expected to occur as a result of the proposed project.
9.6 Discuss any mitigation to avoid, minimize or compensate for cumulative effects: Modifying or adding project alternatives is unnecessary. However, the applicant has considered multiple opportunities to avoid, minimize, mitigate and/or otherwise enhance environmental resources. Avoidance and minimization methods include site design to avoid on-site aquatic resources and implementing BMPs. These measures will result in reductions of direct impacts and potential impacts the proposed activity could have on surface waters. See Sections 1.3.1 and 5.0 for additional information.

Compensatory mitigation, namely the purchase in-lieu fee wetland credits, are discussed below under Section 8.0. The applicant would be required to compensate for the unavoidable discharge of fill material into waters of the U.S., associated with the development project, as discussed in Section 8.0. The applicant has proposed to purchase wetland credits from a Federally approved in-lieu fee program serving the impact site for Category 2 wetlands. In addition, the applicant will be required to submit as-built drawings to the Corps within 60 days of completion of construction showing the location and configuration, as well as all pertinent dimensions and elevations of each project component authorized under any DA permit issued for the proposed project. Refer to Section 8.0 for additional information.
9.7 Conclusions regarding cumulative impacts:

When considering the overall impacts that will result from the proposed activity, in relation to the overall impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in the area described in section 9.2, are not considered to be significant. Compensatory mitigation will be required to help offset the impacts to eliminate or minimize the proposed activity's incremental contribution to cumulative effects within the geographic area described in Section 9.2. Mitigation required for the proposed activity is discussed in Section 8.0.

### 10.0 Compliance with Other Laws, Policies, and Requirements

10.1 Section 7(a)(2) of the Endangered Species Act (ESA): Refer to Section 2.2 for description of the Corps action area for Section 7.
10.1.1 Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? No
10.1.2 Are there listed species or designated critical habitat present or in the vicinity of the Corps' action area? Yes, the Federally-listed endangered Indiana bat (Myotis sodalis) and the Federally-listed threatened northern long-eared bat (Myotis septentrionalis)

Effect determination(s), including no effect, for all known species/habitat, and basis for determination(s): To avoid adverse impacts to the Indiana bat and the northern long-eared bat, the applicant has proposed to implement the USFWS' proposed seasonal tree clearing restrictions. Tree clearing would only occur between October 1 and March 31. Based on this information, the proposed project is not likely to adversely affect the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat of such species which has been determined to be critical.

On 24 January 2018, the Corps requested USFWS concurrence with our "may affect, not likely to adversely affect" determination for the Indiana bat and the northern long-eared bat in accordance with our "Standard Operating Procedures for Endangered/Threatened Species (SLOPES)...Feb 2008." The USFWS concurrence was received on 30 January 2018. Special conditions would be incorporated into any authorization for this proposal for tree clearing restrictions and to minimize effects on federally-listed species or critical habitat in a manner not previously considered. See Section 11.0 for additional information.
10.1.3 Consultation with either the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service was initiated and completed as required, for any determinations other than "no effect" (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation). PN No. LRH-2017-00244 issued by this office on 22 November 2017 advertised the applicant's proposal. A copy of the PN was provided to the USFWS for review. On 30 January 2018, the USFWS provided concurrence with the Corps determinations that the proposed project is not likely to adversely affect either the Indiana bat or the northern long-eared bat. Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 7(a)(2) of the ESA. The documentation of the consultation is incorporated by reference.
10.2 Magnuson-Stevens Fishery Conservation and Management Act (MagnusonStevens Act), Essential Fish Habitat (EFH). N/A, there is no essential fish habitat in this district's area of responsibility.
10.3 Section 106 of the National Historic Preservation Act (Section 106): Refer to Section 2.3 for permit area determination.
10.3.1 Has another federal agency been identified as the lead federal agency for complying with Section 106 of the National Historic Preservation Act with the Corps designated as a cooperating agency and has that consultation been completed? No
10.3.2 Known historic properties present? No.

Effect determination and basis for that determination: Archaeological investigations (e.g., Phase 1 and Phase II Archaeological Investigations) were performed in consultation with the Ohio SHPO.

Through a letter dated 11 October 2017, the Ohio SHPO stated "Subsurface testing, surface collection and intensive visual inspection of the project area resulted in the identification of 19 previously unrecorded archaeological sites and the re-identification of site 33 GU 274. The newly identified sites, 33 GU 290-304 and 33 GU 316-319, are generally small lithic scatters typical of short term occupations and isolated historic artifacts. Based on the information provided, this office concurs with the opinion that sites 33 GU 274 and 33 GU 292-294 are potentially eligible for inclusion in the National Register of Historic Places. Additional Phase II testing at 33 GU 274 has demonstrated that the site is not eligible for inclusion in the National Register of Historic Places. According to the submitted information, sites 33 GU 292-294 are to be avoided.

The historic architecture reconnaissance survey included a background literature review and a systematic survey of historic architectural resources fifty years or older within the project area (direct APE) or within one mile of the project area (indirect APE). In total, seventy historic architectural resources were identified, sixty-seven of which were located in the indirect APE, and three in the direct APE. Six farmsteads and one bridge were advanced to detailed study to determine NRHP-eligibility and assess potential effects (GUE0064319, GUE0064419, GUE0048915, GUE0064519, GUE0064619, and GUE0064815). Tetra Tech recommends all seven of these properties as potentially eligible for inclusion in the National Register of Historic Places. Our office agrees with these recommendations of eligibility.

Tetra Tech provided information to support their contention that the proposed project will not diminish the integrity or alter the characteristics that qualify any of that above referenced historic architecture resources for National Register inclusion. Therefore, the project will have no adverse effect on historic properties".

Based on the above information, the Corps has determined the proposed undertaking would have no adverse effect on historic properties listed or eligible for listing on the NRHP. A copy of the Corps' determination was furnished to the Ohio History Connection, Ohio SHPO, through PN LRH-2017-00244-MUS issued by this office on 22 November 2017. No comments were received from the Ohio SHPO regarding this determination. Per the guidance provided in the Memorandum for All Major Subordinate Commands, District Commands, dated 25 April 2005, entitled "Revised Interim Guidance for Implementing Appendix C of 33 CFR Part 325 with the Revised Advisory Council on Historic Preservation Regulations at 36 CFR Part 800; Unless the Advisory Council on Historic Places is reviewing the "no adverse effect" determination in accordance with 36 CFR $800.5(\mathrm{c})(3)$, the district engineer may proceed after the close of the 30 day review period if the SHPO/THPO has agreed with the determination or has not provided a response, and no consulting party has objected.

A special condition would be incorporated into the authorization for this proposal to minimize effects on unknown historic or archaeological sites or human remains that could be uncovered while accomplishing the authorized activities. See Section 11.0 for the special conditions.
10.3.3 Consultation was initiated and completed with the appropriate agencies, tribes and/or other parties for any determinations other than "no potential to cause effects" (see the attached ORM2 Summary sheet for consultation type, begin date, end date and closure method of the consultation). PN No. LRH-2017-0024MUS issued by this office on 22 November 2017 advertised the applicant's proposal. A copy of the PN was provided to the Ohio SHPO for review. No comments were received from the Ohio SHPO. Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA. Compliance documentation incorporated by reference.

### 10.4 Tribal Trust Responsibilities

10.4.1 Was government-to-government consultation conducted with Federallyrecognized Tribe(s)?Yes
In response to the public notice, the Tuscarora Nation and the Miami Tribe of Oklahoma stated that they do not object to the proposed project and would like to be notified if human remains or artifacts are discovered during project-related activities. See Section 4.0 for additional information.

Based on the above information, the Corps has determined that is has fulfilled its tribal trust responsibilities.
10.4.2 Other Tribal including any discussion of Tribal Treaty rights? N/A

### 10.5 Section 401 of the Clean Water Act - Water Quality Certification (WQC)

10.5.1 Is a Section 401 WQC required, and if so, has the certification been issued, waived or presumed? An individual water quality certification is required and has been issued by the certifying agency.

### 10.6 Coastal Zone Management Act (CZMA)

10.6.1 Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, waived or presumed? N/A, a CZMA consistency concurrence is not required.

### 10.7 Wild and Scenic Rivers Act

10.7.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system? No

If yes, summarize coordination and the determination on whether activity will adversely affect the Wild and Scenic River designation or study status. The Corps has determined that it has fulfilled its responsibilities under the Wild and Scenic Rivers Act.
10.8 Effects on Corps Civil Works Projects (33 USC 408)
10.8.1 Does the applicant also require permission under Section 14 of the Rivers and Harbors Act ( 33 USC 408) because the activity, in whole or in part, would alter, occupy or use a Corps Civil Works project? No, there are no federal projects in or near the vicinity of the proposal.

Based on a review of the Huntington District Project boundaries, the proposed project would not be located near a Corps Civil Works Project.
10.9 Corps Wetland Policy (33 CFR 320.4(b))
10.9.1 Does the project propose to impact wetlands? Yes
10.9.2 Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.
10.10 Other (as needed): N/A

### 11.0 Special Conditions

11.1 Are special conditions required to protect the public interest, ensure effects are not significant and/or ensure compliance of the activity with any of the laws above? Yes
11.2 Required special condition(s): Special Conditions made a part of the proposed permit are included for the protection of the environment and resulted from coordination with Federal and State agencies and the Corps' independent review. It has been determined the proposed special conditions listed below are directly related to the impacts of the proposal, are appropriate to the scope and degree of those impacts, and are reasonably enforceable.

Special condition 1: The permittee is hereby authorized to temporarily discharge dredged and/or fill material into approximately 3.46 acres of three (3) wetlands (Wetlands W-C31, W-C52, and W-C101) and permanently discharge dredged and/or fill material into 3.07 acres of three (3) wetlands (Wetlands W-C31, WC52, and W-C101), as listed on Tables 1 and 2 below, in association with the Guernsey Power Station Project, and as shown on the enclosed drawings. This Department of the Army (DA) Section 404 Clean Water Act Individual Standard Permit remains contingent upon and must be constructed in accordance with drawings attached hereto.

Rationale: To ensure the proposed project is constructed in accordance with the provided information.

Special condition 2: The permittee will display a copy of this DA permit at the site and ensure all contractors are aware of its terms and conditions.

Rationale: To ensure the proposed project is constructed in accordance with the provided information.

Special condition 3: To offset the loss of wetland functions resulting from the permanent discharge of dredged and/or fill material, and the permanent conversion of forested wetland to non-forested wetland, the permittee will purchase 12.1 acres of wetland credits from the Federally approved Stream + Wetlands In-Lieu Fee (ILF) Mitigation Program. Within 30 days of the issuance of the DA permit, a copy of the fully executed ILF Program agreement with the Stream + Wetlands In-Lieu Fee ILF Mitigation Program must be provided to the Corps. Discharges of dredged and/or fill material into waters of the U.S., as authorized under Special Condition No. 1 of this DA, must not occur until the terms of this condition have been met.

Rationale: To ensure the compensatory mitigation is completed in accordance with the provided information.

Special condition 4: The project site lies within the range of the Indiana bat (Myotis sodalis), a Federally listed endangered species and the northern long-
eared bat (Myotis septentrionalis), a Federally listed threatened species. Several factors have contributed to the two species decline, including habitat loss, fragmentation of habitat and the disease White Nose Syndrome. During winter, the two bat species hibernate in caves and abandoned mines. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags $\geq 3$ inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. The permittee shall preserve wooded/forested habitats exhibiting any of the characteristics listed above wherever possible. Should suitable habitat be present that cannot be saved during construction activities, any trees $\geq 3$ inches dbh shall only be cut between October 1 - March 31.

Rationale: To minimize effects on any federally-protected species that may be encountered during construction activities.

Special condition 5: Section 7 obligations under Endangered Species Act must be reconsidered if new information reveals impacts of the development project that may affect federally listed species or critical habitat in a manner not previously considered, the proposed project is subsequently modified to include activities which were not considered during Section 7 consultation with the U.S. Fish and Wildlife Service, or new species are listed or critical habitat designated that might be affected by the subject project.

Rationale: To minimize effects on any federally-protected species that may be encountered during construction activities.

Special Condition 6: Should new information regarding the scope and/or impacts of the project become available that was not submitted to this office during our review of the proposal, the permittee will submit written information concerning proposed modification(s) to this office for review and evaluation, as soon as practicable.

Rationale: To ensure the proposed project is constructed in accordance with the provided information.

Special condition 7: The permittee is responsible for insuring all activities are performed in compliance with all permit conditions.

Rationale: To ensure the proposed project is constructed in accordance with the conditions of the DA permit.

Special condition 8: The Water Quality Certification issued by the Ohio Environmental Protection Agency dated 20 February 2018 is attached hereto and made a part of this permit. All conditions attached to or contained therein are hereby incorporated by reference as being special conditions of the DA permit.

Rationale: To ensure the State of Ohio water quality standards are met per the requirments of 33 CFR 325.2(b).

Special condition 9: The permittee is required to apply for and secure all necessary permits, certifications or other approvals from federal, state or local regulatory agencies, prior to commencing construction activity.

Rationale: To ensure the proposed project is constructed in accordance with other federal, state or local regulatory agency requirements.

Special condition 10: Approproate site specific best management practices (BMPs) for sediment and erosion control will be fully implemented during construction activities at the site. Clean fill material compatible with existing soils will be used.

Rationale: To minimize effects to water quality and aquatic life.
Special condition 11: No area for which grading has been completed will be unseeded for longer than 14 days. All disturbed areas will be seeded and/or revegetated with native species and approved seed mixes (where practicable) after completion of construction activities.

Rationale: To reduce the adverse effects associated with invasive plant species.
Special Condition 12: In accordance with the enclosed 11 October 2017 letter from the Ohio History Connection, the permittee has agreed to avoid Archaeological sites 33 GU 292-294.

Rationale: To ensure the applicant complies with the commitment to protect known historic properites.

Special condition 13: In the event any previously unknown historic or archaeological sites or human remains are uncovered while accomplishing the activity authorized by this DA permit authorization, the permittee must cease all work in waters of the U.S. immediately and contact local, state and county law enforcement offices (only contact law enforcement on findings of human remains), the Corps at 304-399-5610 and Ohio State Historic Preservation Office
at 614-297-2300. The Corps will initiate the Federal, state and tribal coordination required to comply with the National Historic Preservation Act and applicable state and local laws and regulations. Federally recognized tribes are afforded a government-to-government status as sovereign nations and consultation is required under Executive Order 13175 and 36 CFR Part 800.

Rationale: To minimize on unknown historic or archaeological sites or human remains that could be uncovered while accomplishing the authorized activities. OE.

### 12.0 Findings and Determinations

12.1 Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed deminimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

### 12.2 Presidential Executive Orders (EO):

12.2.1 EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.
12.2.2 EO 11988, Floodplain Management: Alternatives to location within the floodplain, minimization and compensatory mitigation of the effects were considered above.
12.2.3 EO 12898, Environmental Justice: The Corps has determined that the proposed project would not use methods or practices that discriminate on the basis of race, color or national origin nor would it have a disproportionate effect on minority or low-income communities.
12.2.4 EO 13112, Invasive Species: There are no invasive species issues involved in this proposed project.
12.2.5 EO 13212 and EO 13302, Energy Supply and Availability: The review was expedited and/or other actions were taken to the extent permitted by law and regulation to accelerate completion of this energy related project while maintaining safety, public health and environmental protections.
12.3 Findings of No Significant Impact: Having reviewed the information,provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be required.
12.4 Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation above, I have determined that the proposed discharge complies with the Guidelines, with the inclusion of the appropriate and practicable special conditions to minimize pollution or adverse effects to the affected ecosystem.
12.5 Public interest determination: Having reviewed and considered the information above, I find that the proposed project is not contrary to the public interest.

PREPARED BY:


Date: 21 February 2018
Audrey Richter
Regulatory Project Manager
Energy Resource Branch
REVIEWED AND APPROVED BY:


Teresa Spagna
Chief, North Branch

## CITIZEN ADVISORY

Public Interest Center (614) 644-2160

FOR RELEASE: March 24, 2022

## Ohio EPA Issues 401 Water Quality Certification Modification for Guernsey Power Station

You are receiving this notice because you have expressed interest in Guernsey Power Station in Guernsey County.

Ohio EPA issued a 401 Water Quality Certification on March 22, 2022. The certification and response to comments are included with this advisory.

Issuance of final permits may be appealed to the Ohio Environmental Review Appeals Commission (ERAC). Appeals generally must be filed within 30 days of the final action; therefore, anyone considering filing an appeal should contact ERAC at (614) 466-8950 for more information.

Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

## Re: Guernsey Power Station Permit - Intermediate Approval 401 Wetlands Guernsey <br> DSW401175544

## Transmitted Electronically

March 22, 2022
Thomas Grace
Guernsey Power Station LLC c/o Caithness Energy
960 Holmdel Road, Building 2
Holmdel, NJ 07733
tgrace@caithnessenergy.com
Subject: Guernsey Power Station
Guernsey / Valley / Derwent
Second Modification of a Section 401 Water Quality Certification and replaces the modified certification issued on August 10, 2020
Corps Public Notice No. LRH-2017-00244-MUS
Ohio EPA ID No. 175544

Dear Stakeholders:
I hereby authorize the above referenced project under the following authorities, and it is subject to the following modifications and/or conditions:

## Section 401 Water Quality Certification

Pursuant to Section 401 of the Federal Water Pollution Control Act, Public Law 95-217, I hereby certify that the above-referenced project will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act. This authorization is specifically limited to a Section 401 Water Quality Certification (here after referred to as "certification") with respect to water pollution and does not relieve the Certification Holder of further Certifications or Permits as may be necessary under the law. I have determined that a lowering of water quality in the Wills Creek watershed (HUC 05040005) as authorized by this certification is necessary. I have made this determination based upon the consideration of all public comments, if submitted, and the technical, social, and economic considerations concerning this application and its impact on waters of the state.

## PART I ON-SITE WATER RESOURCES AND IMPACTS

A. Watershed Setting

The watershed in which this project is located, Trail Run - Wills Creek (HUC 05040005-02-07), has an area of 22.98 square miles. Wills Creek is a warmwater habitat (WWH) stream and primary contact recreation water with an antidegradation category of general high-quality water. Other Ohio EPA Aquatic Life Use Designations located in this watershed, as found in OAC rule 3745-1-21, include Exceptional Warmwater Habitat (EWH) and WWH.
B. Project Description

The project involves construction of a new natural gas-fired combined cycle electric generating facility located in Guernsey County, Ohio and a utility-owned substation and interconnecting transmission/distribution lines. This modification involves additional conversion of forested wetland to non-forested wetland habitat.
C. Impacts to Waters of the State

1. Streams

Impacts to streams are not authorized under this certification.
2. Wetlands
a. Temporary Impacts

| Wetland ID | Isolated or Nonisolated? | Forested or NonForested | Category | Total Acreage on Site | Total Acreage Impacted | Percent <br> Avoided |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W-C31 | NI | NF | 2 | 8.74 | 1.10 | 87.4 |
| W-C52 | NI | NF | 2 | 25.48 | 0.10 | 93.6 |
|  |  | NF - SS |  |  | 0.53 |  |
|  |  | F |  |  | 1.01 |  |
| W-C101 | NI | NF | 2 | 0.10 | 0.0 | 100.0 |
| W-C34 | NI | NF | 1 | 0.24 | 0.03 | 87.5 |
| W-C38 | NI | NF | 1 | 3.08 | 0.09 | 97.1 |
| W-C40 | NI | NF | 1 | 1.55 | 0.004 | 99.7 |
|  |  |  | Total | 39.19 | 2.86 | 92.7 |

b. Permanent Impacts

Permanent impacts include 3.24 acres of wetland fill (2.95 acres of forested wetland) and 2.63 acres of forested conversion (FC) for a total of 5.87 acres.

| Wetland ID | Forested or NonForested | Category | Total Acreage on Site | Total Acreage Impacted | Percent <br> Avoided | Impact Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W-C30 | F | 2 | 1.91 | 0.07 | 96.3 | FC |
| W-C31 | NF | 2 | 8.74 | 0.01 | 99.9 | Fill |
| W-C52 | NF | 2 | 25.48 | 0.28 | 77.3 | Fill |
|  | F |  |  | 2.95 |  | Fill |
|  |  |  |  | 2.56 |  | FC |
| W-C101 | NF | 2 | 0.10 | 0.00 | 100.0 | - |
| Total |  |  | 36.23 | 5.87 | 83.8 | - |

## 3. Lakes

Impacts to lakes are not authorized under this certification.

## PART II TERMS \& CONDITIONS

A. This certification shall remain valid and in effect as long as the 404 Permit issued by the U.S. Army Corps of Engineers for this project is in effect.
B. Terms and conditions outlined in this section apply to project as described in this certification.
C. The Certification Holder shall notify Ohio EPA, in writing, and in accordance with Part IV (NOTIFICATIONS TO OHIO EPA) of this certification, upon the start and completion of site development.
D. A copy of this certification shall remain on-site for the duration of the project.
E. In the event of an inadvertent spill, the Certification Holder must immediately call the Ohio EPA Spill Hotline at 1-800-282-9378, as well as the Ohio EPA Section 401 Manager (614-644-2001).
F. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project must be reported within 24 hours of occurrence to Ohio EPA, Division of Surface Water, Section 401 Manager (614-644-2001), for further evaluation.
G. Pesticide application(s) for the control of plants and animals shall be applied in accordance with the NPDES General Permit to Discharge Pesticides In, Over or Near Waters of the State available at: https://www.epa.ohio.gov/portals/35/permits/OHG870002\ FINAL\ PERMIT .pdf and may require a pesticide applicator license from the Ohio Department of Agriculture.
H. Any authorized representative of the director shall be allowed to inspect the authorized activity at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this certification.
I. In the event that there is a conflict between the certification application, including the mitigation plan, and the conditions within this certification, the condition shall prevail unless Ohio EPA agrees, in writing, that the certification application or other provision prevails.
J. The Certification Holder shall provide electronic maps of the development area and the mitigation area to Ohio EPA 401 WQC and Isolated Wetland Permitting Section within 30 days of the date of this certification. When sending the electronic files, include the Ohio EPA ID Number and the Army Corps of Engineers Number (if applicable). If possible, these electronic maps shall be GIS shape files or Geodatabase files. If this is not possible, the electronic maps shall be in another electronic format readable in GIS (GIF, TIF, etc). The electronic files shall be sent to the following e-mail address: EPA.401Webmail@epa.ohio.gov

If the files are too large to send by e-mail (over 25 MB ), a disk containing the electronic files shall be mailed to the following address:

Ohio Environmental Protection Agency
Division of Surface Water
Attn: 401 WQC/IWP/Mitigation Section Manager
50 West Town Street, Suite 700
PO Box 1049
Columbus, OH 43216-1049
K. This proposal may require other permits from Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office as follows:

Ohio Environmental Protection Agency
Southeast District Office
2195 Front Street
Logan, Ohio 43138
740-385-8501

## Additional information regarding environmental permitting assistance at Ohio EPA can be found at http://www.epa.ohio.gov/dir/permit assistance.aspx

L. Best Management Practices (BMPs)

1. All water resources and their buffers which are to be avoided, shall be clearly indicated on site drawings demarcated in the field and protected with suitable materials (e.g., silt fencing) prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process.
2. All BMPs for stormwater management shall be designed and implemented in accordance with the most current edition of the Ohio Department of Natural Resources Rainwater and Land Development Manual, unless otherwise required by the National Pollutant Discharge Elimination System (NPDES) general permit for stormwater discharges associated with construction activities (construction general permit), if required.

A copy of the Rainwater and Land Development Manual is available at: https://epa.ohio.gov/dsw/storm/rainwater

A copy of the NPDES construction general permit is available at: https://www.epa.ohio.gov/portals/35/permits/OHC000005/Final OHC0000 05.pdf
3. Straw bales shall not be used as a form of erosion/sediment control.
4. Fill material shall consist of suitable non-erodible material and shall be stabilized to prevent erosion.
5. Materials used for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as fill or bank protection.
6. Concrete rubble used for fill or bank stabilization shall be in accordance with ODOT specifications; free of exposed re-bar; and, free of all debris, soil and fines.
7. Chemically treated lumber which may include, but is not limited to, chromated copper arsenate and creosote treated lumber shall not be used in structures that come into contact with waters of the state.
M. Wildlife Protection

1. In the event that an eastern massasauga rattlesnake (Sistrurus catenatus catenatus) is encountered during construction of the project, work should immediately cease and the Ohio Department of Natural Resources, Division of Wildlife contacted. Caution should be employed during construction and during the snakes' active season (March 15 - November 15).
2. The Ohio Department of Natural Resources (ODNR), Division of Wildlife (DOW), recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat.

## PART III MITIGATION

## A. Description of Required Mitigation

For the original 401 WQC (February 20, 2018), as mitigation for 4.914 acres of permanent wetland impact, including fill of 0.30 acres of Category 2 non-forested wetland, 2.774 acres of Category 2 forested wetland, and 1.84 acres of Category 2 wetland forest conversion to non-forested wetland habitat, the certification holder purchased 12.2 credits from the Stream + Wetlands Foundation located within the secondary service area of the Tuscarawas watershed (HUC 05040001) as shown below.

| In-Lieu Fee Mitigation Summary Table |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Watershed <br> (HUC 8) | Wetland <br> Type | Wetland <br> Category | Impact <br> Acreage | Ratio <br> Multiplier | Mitigation <br> Credits |
| Tuscarawas <br> (05040001) | Forested | 2 | 4.614 | 2.5 | 11.6 |
|  | Non- <br> Forested | 2 | 0.30 | 2.0 | 0.60 |
| Project Totals |  |  |  |  |  |

For the modified 401 WQC issued on 8/10/2020, additional forested fill in the amount of 0.17 acres of Category 2 wetland was authorized and for mitigation, the certification holder purchased 0.5 credits from the Buffalo Creek Preserve Mitigation Bank in the Wills Creek watershed (HUC 05040005).

For this second modification involving additional forested conversion in the amount of 0.78 acres of Category 2 wetland, 2.0 credits of forested mitigation will be purchased from The Nature Conservancy's Ohio Stream and Wetland In-Lieu Fee mitigation program in the Wills Creek watershed (HUC 05040005).
B. Timing of Mitigation Requirements

Within 30 days of the date of the modified Corps 404 Permit, a copy of the fully executed mitigation banking agreement with The Nature Conservancy's Ohio Stream and Wetland In-Lieu Fee mitigation program shall be provided to Ohio EPA. Impacts to waters of the state shall not occur until the terms of this condition have been met.

## PART IV RESTORATION

A. Temporary Impacts

1. Mitigation is not required for temporary impacts associated with construction of the project. Temporary impacts are those that facilitate the nature of the activity or aid in the access, staging or development of construction; are short-term in nature; and that are expected, upon removal of the temporary impact, to result in the surface water or wetland returning to conditions which support pre-impact biological function with minimal or no human intervention within 12 months following the completion of the temporary impact. Monitoring of the restoration of the temporarily impacted wetlands is required.

Restoration monitoring shall occur for at least 2 years after completion of construction unless the certification holder can demonstrate the restored sites are meeting performance goals after the first year of monitoring. Restoration reports shall be submitted by December 31st of each restoration monitoring year. The applicant shall request a site visit with Ohio EPA during the growing season that follows the submittal of the first annual restoration report.
B. Description of Required Restoration

The Certification Holder shall complete onsite restoration of wetlands to pre-existing contours and conditions.

## C. Annual Project Update Reports

A project update report shall be submitted to Ohio EPA by December 31 of each year following the date of this certification and until restoration is complete and a restoration monitoring report is ready for submittal. Each update report shall contain, at a minimum, the following information:

1. The status of the restoration required for the project as specified in the certification.
2. The status of the filling activities at the development site including dates filling was started and completed or are expected to be started and completed. If filling activities have not been completed, a drawing shall be provided, which shows the locations and acreage/feet of wetlands/streams that have not yet been filled.
3. Restoration construction start date and completion date. If restoration has not begun, an expected construction start date and completion date will be provided.
4. Current contact information for all responsible parties including phone number, email, and mailing addresses. For the purposes of this condition, responsible parties include, but may not be limited to, the Certification Holder, consultant, and/or owner.
D. Restoration Monitoring Reporting
5. The restoration monitoring period shall commence immediately following completion of restoration construction and shall continue through two growing seasons.
6. Annual restoration reports shall be submitted to Ohio EPA by December 31 of each year following the end of the first full growing season and completion of restoration construction. Each report shall contain, at a minimum, the following information:
a. The status of all restoration required for the project as specified in the application and certification;
b. Restoration construction start date and completion date. If restoration has not begun, an expected construction start date and completion date will be provided;
c. A discussion of the extent to which the restoration has been completed; and,
d. Current contact information for all responsible parties including phone number, email, and mailing addresses. For the purposes of this condition, responsible parties include, but may not be limited to, the Certification Holder, consultant, and/or owner.

## E. Wetland Restoration Monitoring Requirements

1. Provide a list of invasive species names and percent coverage of invasive species and a comparison to pre-impact invasive species coverage;
2. Provide data from a wetland delineation point within the restored area on a U.S. Army Corps of Engineers Wetland Determination Data Form;
3. Provide a map of wetland boundaries, acreage, and delineation points; and,
4. Provide a minimum of four high resolution color photographs taken while facing each of the four cardinal directions of each wetland. Photographs must accurately depict the quality of the wetland and may not include a majority of dying or dead vegetation and excessive cover that would prevent the observation of vegetation and substrates, such as leaf litter, snow, or ice.
F. Wetland Restoration Performance Goals
5. Restored wetlands must show no net increase of percent cover of invasive species from pre-impact wetland conditions, no loss in wetland acreage, and the restored wetland area shall continue to meet all three wetland criteria.
G. Restoration Contingency Plans

If the wetland restoration areas are not meeting the restoration performance criteria detailed in Section IV (D) by the end of the second year of post construction monitoring, the monitoring period may be extended one year, and/or the Certification Holder may be required to revise the existing restoration plan.

## PART IV NOTIFICATIONS TO OHIO EPA

All notifications, correspondence, and reports regarding this certification shall reference the following information:

Certification Holder Name: Guernsey Power Station LLC<br>Project Name:<br>Ohio EPA ID No.:<br>Guernsey Power Station<br>175544

and shall be sent to:

# Ohio Environmental Protection Agency 

 Division of Surface Water, 401/IWP UnitLazarus Government Center 50 West Town Street
P.O. Box 1049

Columbus, Ohio 43216-1049

Pursuant to Ohio Revised Code Chapter 6111 and Ohio Administrative Code Chapter 3745-1, and other applicable provisions of state law, the director of the Ohio Environmental Protection Agency hereby concludes that the above-referenced project will comply with the applicable provisions of Sections 6111.03 and 6111.04 of the Ohio Revised Code. This permit does not relieve the applicant of further certifications and permits as may be necessary under the law. This permit modifies and supersedes the modified water quality certification issued on August 10, 2020.

You are hereby notified that this action of the director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within 30 days after notice of the director's action. The appeal must be accompanied by a filing fee of $\$ 70.00$, made payable to "Treasurer, State of Ohio," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission<br>30 East Broad Street, $4^{\text {th }}$ Floor<br>Columbus 43215

Sincerely,


Laurie A. Stevenson
Director
Attachment: Response to Comments
ec: Rachel Klug, Rachel.A.Klug@usace.army.mil, Department of the Army, Huntington District, Corps of Engineers
Wes Barnett, wes.barnett@usace.army.mil, Department of the Army, Huntington District, Corps of Engineers
Candice Bauer, bauer.candice@epa.gov, U.S. EPA, Region 5
Dana Rzeznik, rzeznik.dana@epa.gov, U.S. EPA, Region 5
Patrice Ashfield, Ohio@fws.gov, U.S. Fish \& Wildlife Service
Mike Pettegrew, Mike.Pettegrew@dnr.state.oh.us, ODNR, Office of Real Estate
Diana Welling, dwelling@ohiohistory.org, Ohio Historical Preservation Office
Carol Siegley, Carol.Siegley@epa.ohio.gov, Ohio EPA, DSW, 401/Wetlands/Mitigation Section

Andrea Kilbourne, Andrea.Kilbourne@epa.ohio.gov, Ohio EPA, DSW, Mitigation Coordinator
Jessica Langdon, Jessica.Langdon@pa.ohio.gov, Ohio EPA
Rachel Taulbee, Rachel.Taulbee@epa.ohio.gov, Ohio EPA, DSW, 401/Wetlands/Mitigation Section
Devin Schenk, dschenk@TNC.org, The Nature Conservancy
Lynn Gresock, lgresock@haleyaldrich.com, Haley Aldrich Protection Agency

# Division of Surface Water Response to Comments 

## Project: Guernsey Power Station Ohio EPA ID \#: DSW401175544

Agency Contacts for this Project<br>Division Contact: Carol Siegley, Division of Surface Water, 740-380-5225, Carol.Siegley@epa.oho.gov

Public Involvement Coordinator: Jessica Langdon, 614-644-2160, Jessica.Langdon@epa.ohio.gov

Ohio EPA held a comment period on Dec. 28, 2021, regarding a Section 401 Water Quality Certification Modification.This document summarizes the comments and questions received during the associated comment period, which ended on Feb. 8, 2022.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

## Comments from Fresh Water Accountability Project

Comment 1: The mitigation credits GPS (Guernsey Power Station) seeks to secure from The Nature Conservancy are outside the Wills Creek watershed.

Response 1: $\quad$ The applicant has revised the mitigation plan to secure credits within the Wills Creek watershed to mitigate for wetland impacts with this modification.

Comment 2: $\quad$ The GPS permit modification application provides no detail regarding what wetlands mitigation actions in the Tuscarawas watershed The Nature Conservancy will undertake in association with the mitigation credit purchase by GPA, nor does the application explain why mitigation actions in the Tuscarawas watershed are an acceptable substitute for mitigation actions that would take place in the Wills Creek watershed and directly offset degradation caused by the wetlands impacts GPS proposes to undertake.

Response 2: See Response 1.
Comment 3: Ohio EPA should require that GPS include in its permit modification all corrective actions it has taken in response to previous notices of violation of its Ohio EPA and USACE permits, as detailed in [Audrey Richter, USACE email of November 10, 2020; Ohio EPA Notice of Violation of November 19, 2020].

Response 3: Two violations were noted during a stormwater inspection by Ohio EPA on Oct. 27, 2020. A Resolution of Violation (ROV) letter was issued by Ohio EPA on Jan. 6, 2021, noting the reconnection of a skimmer arm and documentation of the installation of a triple-stack filter sock sediment trap, thereby resolving all violations.

Comment 4: $\quad$ No further permit modifications should be granted without a full review of cumulative impacts from all prior permits granted, including the PUCO allowing the Guernsey Power Station to grow from 1100MW to 1875 MW with potentially another increase in the future.

Response 4: Ohio EPA Division of Surface Water reviews proposed actions of the director in accordance with the regulatory requirements contained within the Ohio Revised Code (ORC) and Ohio Administrative Code (OAC). This comment may more appropriately be directed to the Public Utilities Commission of Ohio and their review process.

Comment 5: In addition, the laydown yard, and Brent Ball property needs to be examined for even more wetlands impacts that have not received permits. No further wetland credits should be issued until the laydown yard is removed and the wetland restored. All further permit
modifications should be denied until a full audit of permit compliance is conducted.

Response 5: The site was investigated on Friday, March 4, 2022, by Carol Siegley of Ohio EPA Division of Surface Water, for unpermitted wetland impacts. No unpermitted wetland or stream impacts have occurred on the site.

## Other Comments

Comment 6: $\quad$ For the past two years, we have suffered from air and water contamination due to the buildout of the Guernsey Power Station that Mike and Mary King assured us we would not even know was there. Now it is obvious that was a lie, and that others have been forced from their homes while we continue to be forced to wait for a buyout. In the meantime, the air became so contaminated we became seriously sick, as well as the water so harmful that we had to shut off the flow and now have no indoor running water. I hope you can understand the extent of our frustration with the GPS project and that you will take our comments very seriously.

We object to the approval of any further permit modifications until the full scope of the air and water contamination by the Guernsey Power Station is assessed.

Response 6: Ohio EPA does not regulate private wells. Our Agency recommends that you consider involving your local health department for possible contamination issues in your private well. Should you have other environmental concerns, you can file a complaint at Ohio EPA's website.

Comment 7: We assert that there have been more wetlands impacted and destroyed than what has been given credit.

Response 7: See Response 5.
Comment 8: We also strongly object to using wetland credits outside of the Wills Creek watershed.

Response 8: See Response 1.
Comment 9: We are requesting a full review of any wetlands permits and credits until wetlands impacts from the laydown
yard and the private property to the North are assessed, especially due to the fact that the laydown yard has yet to be removed and the wetlands restored.

Response 9: All of the wetlands associated with the laydown yard have been avoided and no impacts had occurred as of the site inspection that took place March 4, 2022. No impacts were evident on the north property from a drive-by perspective.

## End of Response to Comments

This foregoing document was electronically filed with the Public Utilities Commission of Ohio Docketing Information System on 4/15/2022 3:10:14 PM
in
Case No(s). 16-2443-EL-BGN, 18-0090-EL-BGA, 20-0033-EL-BGA, 21-0182-ELBGA

Summary: Public Comment of Lea Harper, electronically filed by Docketing Staff on behalf of Docketing

