

Draft

Environmental Assessment

Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna

New Cumberland, Pennsylvania

May 2025

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Draft Environmental Assessment Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna

New Cumberland, Pennsylvania



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May 2025

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DRAFT ENVIRONMENTAL ASSESSMENT ADDRESSING CONSTRUCTION AND OPERATION OF A MICROGRID FACILITY AT DEFENSE DISTRIBUTION CENTER SUSQUEHANNA

Lead Agency: Defense Logistics Agency (DLA).

Cooperating Agencies: None.

Affected Location: Defense Distribution Center Susquehanna, New Cumberland, Pennsylvania.

Report Designation: Environmental Assessment (EA).

Abstract: DLA proposes to construct and operate a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. The microgrid facility would consist of three parts: relocating the existing substation, co-locating a typical backup power generation facility with the new substation, and installing photovoltaic (PV) renewable electricity generation on a closed sanitary landfill (Solid Waste Management Unit [SWMU] No. 4). The existing primary power supply for the installation is distributed by a local electric utility company, PPL. Although the existing power supply has been a reliable source, an alternate, independent power supply would provide resiliency and allow the facility to support mission priorities in the event of a large-scale power outage.

This EA analyzes the potential for significant environmental impacts associated with the Proposed Action and alternatives, including the No Action Alternative. It has been prepared in compliance with the National Environmental Policy Act (NEPA) as amended by the Fiscal Responsibility Act of 2023; DLA Regulation 1000.22, *Environmental Considerations in Defense Logistics Agency Actions (Change 1: April 27, 2018)*; and other applicable DLA issuances.

The purpose of the Proposed Action is to provide Defense Distribution Center Susquehanna with a microgrid facility composed of a central backup power generation plant and PV solar array to provide electricity generation independent of the bulk power grid and increase energy grid efficiency and resiliency. The Proposed Action is needed to meet mission goals for sustainment and to create a more resilient facility by enhancing mission energy security and ensuring the long-term sustainment of the energy supply. Under the Proposed Action, the existing substation would be replaced with a new substation co-located with the centrally located heating plant. Moving the substation to the central part of the installation would provide an efficient and effective location for electrical distribution from the substation. The microgrid would consist of a central backup power generation plant using diesel or bi-fuel (natural gas and diesel) generators that would be installed at the proposed substation location and a PV solar array that would be capable of using a blend of natural gas mixed with diesel fuel, which would substantially increase the runtime when compared to using only diesel fuel. The solar PV component of the microgrid would provide onsite generation of clean, renewable energy to the installation and substantially reduce fuel consumption.

The No Action Alternative is evaluated in this EA as a baseline for comparison to the Proposed Action's impacts. Under the No Action Alternative, DLA would not construct and operate a microgrid facility at Defense Distribution Center Susquehanna. DLA would continue to use existing aging and inefficient electrical facilities that decrease mission readiness and operational efficiency. The emergency backup generators and microgrid would not be installed. The PV solar array would not be installed.

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Acronyms and Abbreviations

ACM	asbestos-containing material	HWMP	Hazardous Waste Management Plan
ACP	access control point		Interetato
ADP	Area Development Plan	I-	
APE	area of potential effects	ICP	Integrated Contingency Plan
AST	aboveground storage tank	LBP	lead-based paint
BGEPA	Bald and Golden Eagle Protection	LID	low impact development
	Act	LUC	land use control
BMP	best management practice	MBTA	Migratory Bird Treaty Act
CEQ	Council on Environmental Quality	MDT	Harrisburg International Airport
CFR	Code of Federal Regulations	MS4	Municipal Separate Storm Sewer
CHP	central heating plant		System
CO ₂ e	carbon dioxide equivalent	MSW	municipal solid waste
COA	Course of Action	MW	megawatt
CWA	Clean Water Act	NEPA	National Environmental Policy Act
CXY	Capital City Airport	NHPA	National Historic Preservation Act
dBA	A-weighted decibel	NH_3	ammonia
DLA	Defense Logistics Agency	NO _X	nitrogen oxide
DoD	Department of Defense	NPDES	National Pollutant Discharge Elimination System
EA	Environmental Assessment	NRHP	National Register of Historic Places
EIS	Environmental Impact Statement	OSHA	Occupational Safety and Health
EO	Executive Order		Administration
°F	degrees Fahrenheit	PADEP	Pennsylvania Department of Environmental Protection
FAA	Federal Aviation Administration	PA	Pennsylvania State Historic
GHG	greenhouse gas	SHPO	Preservation Office
GOV	government-owned vehicle	PCB	polychlorinated biphenyl
GPD	gallons per day	PFAS	per- and polyfluoroalkyl substances
GPW	general purpose warehouse		

PM _{2.5}	particulate matter measured less than or equal to 2.5 microns in diameter
PMG	Hazardous Material and Hazardous Waste Program Maintenance Guide
POV	privately-owned vehicle
PSD	Prevention of Significant Deterioration
PV	photovoltaic
RPZ	runway protection zone
SO ₂	sulfur dioxide
SWMP	Storm Water Management Plan
SWMU	Solid Waste Management Unit
tpy	tons per year
UFC	Unified Facilities Criteria
U.S.	United States
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound
WWTP	wastewater treatment plant

1 Proposed Action Purpose and Need

1.1 Introduction

Defense Distribution Center Susquehanna is a Defense Logistics Agency (DLA) installation in New Cumberland, Pennsylvania, approximately 3 miles southeast of downtown Harrisburg (**Figure 1-1**). It consists of approximately 850 acres of land with more than 150 buildings. The United States (U.S.) government owns the land and all real property assets on the installation. The U.S. Army allows DLA to manage the land on their behalf (DLA 2020a).

DLA's mission is to drive and sustain Warfighter readiness by delivering unmatched global support as the Nation's Logistics Combat Support Agency. Defense Distribution Center Susquehanna's mission is to provide world-class distribution services to enhance the readiness of the Department of Defense (DoD) and other customers through effective and efficient receipt, storage, control, packaging, and shipment of materiel. It strives to be a values-based team known for workforce excellence and providing superior distribution services on time, every time.

This Environmental Assessment (EA) addresses DLA's proposal to construct and operate a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. The microgrid facility would provide renewable electricity generation to support critical mission operations independently from the bulk power grid. The existing primary power supply for the installation is distributed by a local electric utility company, PPL. Although the existing power supply has been a reliable power source, an alternate, independent power supply would provide resiliency and allow the facility to support mission priorities in the event of a large-scale power outage (DLA 2019a).

To construct the microgrid facility, the existing substation would be replaced with a new centrally located substation designed to integrate with the proposed microgrid facility. Moving the substation to the central part of the installation would provide an efficient and effective location for electrical distribution from the substation (DLA 2019a).

The microgrid would consist of a central backup power generation plant using diesel or bi-fuel (natural gas and diesel) generators that would be installed at the proposed substation location and a photovoltaic (PV) solar array that would be installed on the closed sanitary landfill (Solid Waste Management Unit [SWMU] No. 4, regulated by Pennsylvania Department of Environmental Protection [PADEP] under Act 2) within the southern portion of the installation. The backup generators would be capable of using a blend of natural gas mixed with diesel fuel, which would substantially increase the runtime when compared to using only diesel fuel. The solar PV component of the microgrid would provide clean, renewable energy to the installation and substantially reduce fuel consumption (DoD 2023a).





This EA analyzes the potential for significant environmental impacts associated with the Proposed Action and alternatives, including the No Action Alternative. It has been prepared in compliance with the National Environmental Policy Act (NEPA) as amended by the Fiscal Responsibility Act of 2023; DLA Regulation 1000.22, Environmental Considerations in Defense Logistics Agency Actions (Change 1: April 27, 2018); and other applicable DLA issuances.

1.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to provide Defense Distribution Center Susquehanna with a microgrid facility composed of a central backup power generation plant and PV solar array to provide electricity generation independent of the bulk power grid and increase energy grid efficiency and resiliency. The Proposed Action is needed to meet mission goals for sustainment and to create a more resilient facility by enhancing mission energy security and ensuring the long-term sustainment of the energy supply.

1.3 Scope and Organization of the Environmental Assessment

The scope of this EA includes the actions proposed; alternatives considered; existing environment; and potential direct, indirect, and cumulative impacts. The Proposed Action and alternatives considered in this EA are presented in **Section 2**. The No Action Alternative has been analyzed to provide the baseline against which the potential environmental impacts of implementing the action alternatives can be compared. Analyses of the affected environment and environmental consequences from implementing the Proposed Action, including the cumulative impacts analysis and other environmental considerations, are provided in **Sections 3** and **4**. **Section 5** provides a summary of potential environmental impacts. **Section 6** lists the literature cited in this EA, and **Section 7** provides a list of preparers. **Appendix A**: Agency Coordination and Public Involvement provides materials associated with agency and public coordination. **Appendix B**: Air Quality Supporting Documentation and Record of Non-Applicability (RONA) provides air quality supporting documentation and the General Conformity Record of Non-Applicability.

1.4 Summary of Key Environmental Compliance Requirements

1.4.1 National Environmental Policy Act

NEPA, codified in 42 U.S. Code § 4321 et seq., was signed into law on January 1, 1970. NEPA established a national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within federal agencies. NEPA also established the Council on Environmental Quality (CEQ) to coordinate federal environmental efforts. This EA was prepared in accordance with NEPA as amended by the Fiscal Responsibility Act of 2023. An EA serves to briefly provide evidence and analysis for determining whether to prepare a Finding of No Significant Impact or an Environmental Impact Statement (EIS). As part of this EA process, DLA will determine whether the Proposed Action would have the potential to result in significant impacts. If the EA identifies potential significant impacts, then DLA will decide whether to mitigate impacts below the level of significance, undertake the preparation of an EIS, or select the No Action Alternative.

1.4.2 Applicable Environmental and Regulatory Compliance

The NEPA process does not replace procedural or substantive requirements of other environmental statutes and regulations. It addresses them collectively in the form of an EA or EIS, which enables the decision maker to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action.

1.5 Agency Coordination and Public Involvement

DLA Regulation 1000.22 requires DLA to facilitate coordination with federal, state, and local officials and organizations that could be affected by a proposed action. DLA invites agencies, tribes, and members of the public with an interest in the Proposed Action and alternatives to participate in this NEPA process, which provides DLA with the opportunity to coordinate with and consider the views of other agencies, tribes, and individuals. A premise of NEPA is that the quality of federal decisions is enhanced by involving the public in the planning process.

DLA consulted with PADEP regarding construction of the proposed PV solar array on the closed landfill (SWMU No. 4), which has a land use control (LUC) restricting future development within SWMU No. 4. PADEP reviewed and approved the proposed scope of work for the PV solar array (PADEP 2024). Additional information regarding PADEP coordination is provided in **Section 3.3** and **Section 3.5** and correspondence is included in **Appendix A**: Agency Coordination and Public Involvement.

A 2023 Pennsylvania Natural Diversity Inventory search (PNDI-795790) of the installation indicated the possible presence for the northern long-eared bat (Myotis septentrionalis), both a federally and state-listed endangered species, as potentially present at the installation (DCNR 2023). Upon further coordination with USFWS, DLA agreed to implement an avoidance measure to not conduct tree removal between May 15 and August 15 (DLA 2023a). Additional information regarding USFWS coordination is provided in Section 3.4 and correspondence is included in Appendix A: Agency Coordination and Public Involvement. If this time of year restriction on tree clearing cannot be implemented, DLA will coordinate further with USFWS. DLA initiated National Historic Preservation Act Section 106 consultation with the Pennsylvania State Historic Preservation Office (PA SHPO) and 12 Native American tribes (i.e., Absentee-Shawnee Tribe of Indians of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Seneca Nation of Indians, Seneca-Cayuga Tribe of Oklahoma, St. Regis Mohawk Tribe, The Osage Nation, Tonawanda Band of Seneca, Tuscarora Nation, The Shawnee Tribe, Onondaga Nation, Cayuga Nation, and Delaware Nation of Oklahoma) regarding the Proposed Action. DLA made a determination of no adverse effects for the proposed microgrid construction and operation undertaking. In a letter dated April 17, 2025, the PA SHPO concurred with the no adverse effect finding for archaeological resources and determined there are no above ground historic properties present in the project area of potential effects (APE). DLA did not receive responses to the Section 106 consultation letters submitted to Native American tribes. Further information on historic properties near the project areas is provided in Section 3.6. Correspondence with the PA SHPO and Native American tribes is provided in Appendix A: Agency Coordination and Public Involvement.

The Draft EA is available for a 30-day comment period. A Notice of Availability for the Draft EA was published in the *York Daily Record* and *The Patriot-News*. The Draft EA is available online during the public comment period at https://www.dla.mil/Installation-Management/Environmental-Documents/, and hardcopies of the Draft EA are available at the New Cumberland Library, Red Land Community

Library, and the Fairview Township Municipal Building. Copies of the Notice of Availability and public comments received will be included in **Appendix A**: Agency Coordination and Public Involvement of the Final EA. Public comments on the Draft EA will be considered prior to finalization of the EA and signing of the Finding of No Significant Impact.

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2 Proposed Action and Alternatives Description

This section describes the Proposed Action and alternatives considered, including the No Action Alternative. Guidance for complying with NEPA requires an assessment of potentially effective and reasonably feasible alternatives for implementing the Proposed Action.

2.1 Proposed Action

DLA proposes to construct and operate a microgrid facility at Defense Distribution Center Susquehanna located in New Cumberland, Pennsylvania. Components of the microgrid facility are:

- Build a new centrally located substation consisting of two transformers relocated from the existing substation, and two new transformers with space for future expansion to add a fifth transformer;
- Route an electrical transmission line from the existing substation to the new substation;
- Install a central backup power generation plant using diesel or bi-fuel (natural gas and diesel fuel) generators at the new substation location and connect to the new substation;
- Remove the existing substation; and
- Install a ground-mounted, PV solar array on SWMU No. 4 within the southern portion of the installation and connect the PV solar array to the new substation.

The proposed substation project area is approximately 77,620 square feet. The area of disturbance for the proposed substation and backup generators is approximately 40,420 square feet. The remaining area containing the existing aboveground storage tanks (ASTs) and surrounding grass, approximately 37,200 square feet, would not be disturbed by the Proposed Action. The area of disturbance includes approximately 4,430 square feet of existing paved areas of O Avenue, the central heating plant (CHP) parking lot, and sidewalk that would be demolished. The entire area of disturbance would be regraded and covered with compacted fill and finish rock. For the impact analysis, the area of disturbance is assumed to be impervious, resulting in a net increase in impervious area of 35,990 square feet.

The area of disturbance for the feeder line extension from the existing substation to the new substation would likely occur in a combination of overhead lines and underground trenches along or within existing roads; however, the exact location would be determined by PPL, which would design the transmission line. For the impact analysis, 18,100 square feet of disturbance for underground trenching is assumed.

The natural gas supply for the bi-fuel generators is available at the existing CHP and would be extended up to 1,800 feet to the proposed bi-fuel generators. Diesel fuel for the bi-fuel generators would be supplied by the existing diesel ASTs located at the CHP (DoD 2023a). No new diesel storage tanks would be added under the Proposed Action.

Within the proposed substation project area, O Avenue would no longer be open to traffic and would be repurposed. New fencing would be installed on three sides of the proposed substation project area and would tie into the existing fence around the CHP and ASTs area. The existing fence along O Avenue would be removed. Eight parking spaces in the CHP parking lot would be lost and not replaced because the remaining parking area is sufficient for two vehicles that use the parking lot at peak times. No additional parking is required for the proposed substation and microgrid. Existing

stormwater underground pipes and structures within the proposed project area would be redesigned to provide continued collection and conveyance of additional surface water run-off within this area.

Within the existing substation area, all equipment, concrete pads, and fencing would be removed. The area would be covered with topsoil and reseeded.

The proposed PV solar array project area is approximately 25 acres on SWMU No. 4. The project area vegetation is brushy with scattered trees greater than 3 inches in diameter (at chest height). Site preparation for the PV solar array would involve clearing vegetation from the entire 25 acres, including approximately 3.5 acres that would be cleared of trees and stumps. Based on preliminary planning discussions, the PV solar array project area is expected to remain permeable. Non-penetrating, ground-mounted and ballasted solar panels would be installed to avoid additional ground disturbance. The area would be reseeded and restored with native vegetation, where feasible, upon completion of the solar panel installation. A low-growth seed mix would be used to avoid overgrowth and maintain appropriate height of vegetation relative to the solar panel height. No underground transmission lines would be installed within SWMU No. 4. The locations of transmission lines connecting the PV solar array to the proposed substation have not been determined but likely would be located overhead using existing power poles.

2.2 Screening Criteria and Identification of Reasonable Alternatives

NEPA and CEQ NEPA guidance mandate the consideration of "reasonable alternatives" for a proposed action. Reasonable alternatives are defined as those that also could be used to meet the purpose of and need for a proposed action. Screening criteria are used to identify reasonable alternatives for meeting the purpose of and need for a proposed action.

Based on this project's purpose and need, reasonable alternatives would fulfill the following screening criteria:

- Adequate location to meet DoD security requirements;
- Adequate size for solar farm, substation, central backup power generation plant, and microgrid components;
- Avoids environmental constraints; and
- Compatible with adjacent land uses.

DLA evaluated three alternative locations for the proposed substation. The proposed substation project area was the preferred option that offered the greatest long-term benefit. The proposed substation location within the industrial portion of the installation is an interior location that meets security requirements, is compatible with adjacent land uses, is not impacted by environmental constraints, and provides the most effective location for serving the majority of DLA's existing mission activities (DLA 2019b). The proposed substation project area is an adequate size for the substation and central backup power generation plant components of the microgrid.

The proposed PV solar array project area is SWMU No. 4, which is approximately 25 acres in size and located within the southern portion of the installation. SWMU No. 4 is the only suitable site on the installation with adequate size and flat topography to locate the PV solar array. Construction of the PV solar array would not disturb environmentally sensitive subsurface materials and would be a

compatible re-use of the area (DLA 2019a). The PADEP reviewed and approved the proposed scope of work for the PV solar array (PADEP 2024).

2.3 No Action Alternative

Under the No Action Alternative, DLA would not construct and operate a microgrid facility at Defense Distribution Center Susquehanna. DLA would continue to use existing aging and inefficient electrical facilities that decrease mission readiness and operational efficiency. The emergency backup generators and microgrid would not be installed. The PV solar array would not be installed.

2.4 Alternatives Considered but Eliminated from Detailed Analysis

As discussed in Section 2.2, a siting study for the substation relocation project considered three alternative sites and recommended the proposed substation location as the preferred option. The remaining two site options had less favorable locations within the Administration/Community District, which would not be compatible with a substation and less efficient for power distribution from the substation; therefore, these options are not analyzed in this EA (DLA 2019b). Also as discussed in Section 2.2, SWMU No. 4 is the only suitable location on the installation with adequate size and flat topography for the proposed PV solar array, and other locations are not analyzed in this EA. The installation's 2019 Master Plan Update considered three Courses of Action (COAs) for its Future Development Plan and selected COA 2 as the preferred alternative; COA 2 became the Future Development Plan because it best met the planning vision, goals, and objectives of the installation (DLA 2019a). The Master Plan COA 2 included projects to relocate the existing electrical substation and install a solar farm in SWMU No. 4. The installation's 2022 Area Development Plan (ADP) also considered three COAs and selected COA 2 as the preferred alternative. Projects to build a new substation co-located with the CHP to create a cogeneration plant, add bi-fuel backup generators, and remove the existing substation were included in the ADP COA 2 (DLA 2022a). Consequently, the Master Plan and ADP COAs 1 and 3 are not analyzed in this EA.

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3 Affected Environment and Environmental Consequences

All environmental resources were initially considered for detailed analysis in this EA. In compliance with NEPA, CEQ NEPA guidance, and DLA Regulation 1000.22, this section focuses only on the resources considered potentially subject to impacts from the Proposed Action and the No Action Alternative. **Sections 3.1** through **3.10** present the existing environmental conditions and potential environmental consequences from the Proposed Action and No Action Alternative for these resources: infrastructure and transportation, geological resources, hazardous materials and wastes, biological resources, water resources, cultural resources, air quality, noise, airspace management, and aesthetic and visual resources. The potential cumulative impacts that may result from the Proposed Action, when combined with past, present, and reasonably foreseeable action, are discussed in **Section 4**. A summary of the potential impacts on the analyzed resources that may result from the Proposed Action and No Action Alternatives is presented in **Section 5**. The initial evaluation determined that some environmental resource areas would not be impacted or would have clearly insignificant impacts. These environmental resource areas are not analyzed in detail in this EA and are described below.

Health and Safety. The Proposed Action would not result in appreciable impacts on human health and safety. To minimize the probability of injury, Defense Distribution Center Susquehanna personnel, contractors, and construction personnel would follow applicable federal, state, and DoD regulatory requirements during construction and would be required to wear appropriate personal protective equipment, including ear protection, safety-toed shoes, hard hats, eye protection, and gloves. Construction contractors would adhere to applicable federal and state regulations during the handling of hazardous materials and wastes and would follow applicable procedures if working in hazardous areas.

Executive Order (EO) 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires all federal agencies to address the potential health and safety effects of policies on children. The project areas and the surrounding community (i.e., New Cumberland) do not have a meaningfully higher proportion of children compared to the reference populations of York County and Pennsylvania (USCB 2021b). Impacts from the Proposed Action would be limited to the project areas and immediately adjacent areas, and off-installation communities would not be affected. No adverse impacts on health and safety would occur from the Proposed Action; therefore, a detailed analysis of health and safety is not included in this EA.

Land Use. The existing substation and proposed substation locations are within the Defense Distribution Center Susquehanna Infrastructure District and Industrial/Warehouse District, respectively. Current and future land use at both locations is designated as industrial. The proposed substation would be compatible with the existing land uses of the Industrial/Warehouse District and would be consistent with the 2019 Master Plan (DLA 2019a). The PV solar array project area is within the Natural Area District and has a land use designation of environmentally sensitive area (DLA 2019a). The solar array project area would remain pervious during and following installation of the solar array. Potential impacts on stormwater runoff within the solar array project area would be minimized by implementing appropriate installation-wide and project-specific management plans and complying with Section 438 of the Energy Independence and Security Act, which requires federal agencies to maintain or restore pre-development hydrology. During the design phase for the solar array, best management practices (BMPs), including pre- and post-construction stormwater BMPs to maintain current runoff conditions and avoid impacts on water quality downgradient of the project area, would be identified. The Master Plan is expected to be updated to reflect siting of the solar array and incorporate updated stormwater requirements thereby maintaining land use compatibility. Additionally, operation of the microgrid facility would not introduce new land uses to the installation. Therefore, no impacts on land use would occur from the Proposed Action, and a detailed analysis of land use is not included in this EA.

Socioeconomics – Demographics, Employment and Economic Activity, and Public Services.

Construction personnel and materials required for site preparation and construction of the microgrid facility would result in short-term, negligible, beneficial impacts on employment and the local economy through increased employment and the purchase of goods and services for construction. As of 2020, it was estimated the construction labor force within York County and surrounding counties (i.e., Adams, Cumberland, Dauphin, and Lancaster) included 55,758 workers (USCB 2021a), which would provide sufficient capacity to support construction of the proposed microgrid facility. Construction workers would commute daily to the project areas; therefore, no construction workers would be required to relocate to the area, and no impacts on the local population would occur. Operation of the microgrid facility would not require additional personnel, and no permanent jobs would be lost or created. Long-term impacts on regional demographics such as population and employment, economic activity, and demand for public services would not occur. Therefore, a detailed analysis of socioeconomics is not included in this EA.

3.1 Infrastructure and Transportation

3.1.1 Existing Conditions

Electrical System. The electrical infrastructure on the installation, which is owned by DLA, consists of overhead and underground lines that distribute power throughout the installation. Underground and overhead electrical distribution lines extend from the existing substation, and connect with facilities throughout the installation, including the CHP near the proposed substation project area. No electrical transmission lines are within the PV solar array project area. There are sufficient existing overhead poles to support extension of a transmission line from the proposed PV solar array to the proposed substation (DLA 2022a).

Steam Heat and Liquid Fuel Systems. The CHP provides steam heat to the installation's Industrial District in the south. Natural gas is the primary fuel for the CHP, and fuel oil is the secondary fuel. Underground steam distribution lines are present at the proposed substation project area, extending from the CHP to connect with facilities throughout the installation. There are no steam distribution lines at the existing substation, the proposed PV solar array project area, or along roads where electrical transmission lines would be underground. Fuel oil is used to heat several other buildings within the installation that are not connected to the steam heat system.

Propane is used for cooking and some industrial operations on the installation. Propane, along with gasoline and diesel fuel, is also used as fuel for the installation's vehicles. Kerosene is used to provide personal heat to personnel who staff the access control points (ACPs) (DLA 2019a).

Natural Gas System. The CHP is primarily fueled by natural gas, with a fuel-oil backup. Underground natural gas distribution lines are present near the existing substation, proposed substation project area, and along Mifflin Avenue where a portion of the feeder line extension would be underground. There are no natural gas distribution lines at the proposed PV solar array project area, or along roads where the electrical transmission line would extend from the proposed PV solar array to the proposed substation (DLA 2022a).

Stormwater System. Stormwater at the installation is managed through a system of catch basins, pipes, outfalls, and ponds. The drainage system is divided by a ridgeline that runs east to west, near and along J Avenue. The northern section drains to the Susquehanna River, and the southern section drains to Marsh Run Creek. The drainage system is adequate for managing stormwater flow on the installation, even during most storm events within the area (DLA 2019a, DLA 2022a). Stormwater infrastructure within the project areas include an underground stormwater main and stormwater inlet grates along Mifflin Avenue near the existing substation; a stormwater main, stormwater service line, drain lines, stormwater inlet grates, and stormwater manholes within the proposed substation project area along O Avenue and near the existing heating oil storage tanks; a stormwater main line bisecting the proposed PV solar array project area that direct stormwater from Marsh Run Road to an outfall into Marsh Run; a stormwater main line, stormwater inlet grates, and stormwater main lines, service lines, and drain lines along roads that may follow the overhead feeder line extension from the existing substation and electrical distribution line from the proposed PV solar array (DLA 2020b).

Wastewater System. The installation has a wastewater treatment plant (WWTP) that treats industrial and sanitary wastewater. Water is gravity fed near Building 430 at the WWTP. Pump stations are located on the industrial side of the installation. The average flow received by the WWTP is less than 100,000 gallons per day (GPD), though the permitted discharge capacity is 150,000 GPD. No issues or concerns have been reported with the wastewater system. Underground wastewater collection lines are present near the proposed substation project area, on the north side of the existing substation, and throughout the installation including along roadways that may follow the overhead feeder line extension from the existing substation and electrical distribution line from the proposed PV solar array. There are no wastewater collection lines within the proposed PV solar array project area (DLA 2019a, DLA 2022a).

Potable Water System. Potable water is delivered to Defense Distribution Center Susquehanna by Pennsylvania American Water. Average daily potable water consumption at the installation is between 150,000 and 200,000 GPD (DLA 2019a). Additionally, a 750,000-gallon potable water storage tank on the installation acts as a backup supply. Underground potable water distribution lines are present near the proposed substation project area. There are no potable water distribution lines within the proposed PV solar array project area (DLA 2022a).

Solid Waste Management. The Roads and Grounds Division provides municipal solid waste (MSW) and recycling collection at the installation. MSW and recyclables are collected through regular pick-ups by DLA government-owned vehicles (GOVs). The installation does not own or operate an active MSW landfill, incinerator, or waste sorting facility, so the MSW is taken to either the York County Landfill or the York County waste-to-energy facility (DLA 2018a). Handling of solid waste follows the installation's Solid Waste Management Plan and Integrated Contingency Plan (ICP), incorporating source reduction, reuse, recycling, green procurement, and other appropriate and complementary principles to minimize the quantity of solid waste generated (DLA 2019a). There are no solid waste or recyclable receptacles within the project areas (DLA 2018a). The proposed PV solar array project area overlies a closed sanitary landfill, SWMU No. 4, which is discussed further in **Section 3.3**.

Transportation System. Interstate (I-) 83 and the Pennsylvania Turnpike (designated I-76 at this location) connect the installation with major cities such as Philadelphia to the east and Pittsburgh to the west. Public roads around the installation are adequate, with average traffic and congestion that peaks in early morning and late afternoon (DLA 2022a).

The transportation network at the installation consists of a series of arterial, collector, and local roadways. The primary installation roads include Mission Drive, Normandy Drive, Second Street, J Avenue, U Avenue, and Mifflin Avenue, which connect the existing substation to the proposed substation and PV solar array project areas. O Avenue runs west-east through the proposed substation project area, with M Avenue to the south of the area and 3rd Street to the west. GOVs and privately-owned vehicles (POVs) share the road with trucks and other large and slow-moving vehicles, resulting in some traffic congestion. The installation has two active ACPs. ACP 3 operates as the primary GOV, POV, and noncommercial visitor gate, and ACP 4 is designated for deliveries and commercial vehicles. ACPs 1 and 2 are inactive (DLA 2022a).

Sidewalks are inconsistent throughout the installation, and no dedicated bicycle lanes are present. A pedestrian path runs along the northern portion of the installation, adjacent to Mifflin Avenue. A parking area for the CHP with 10 marked parking spaces is partially within the proposed substation project area (DLA 2022a).

3.1.2 Environmental Consequences

Proposed Action

Short-term, negligible, adverse impacts on utilities would be expected from temporary service interruptions during demolition and construction associated with the Proposed Action. Utilities that have the potential to be impacted include the electrical, steam heat, natural gas, stormwater, wastewater, and potable water systems. Service interruptions may be experienced during addition, removal, or relocation of utility lines required for construction of the proposed substation and PV solar array, and from extension of the feeder line and transmission line from the existing substation and proposed PV solar array to the proposed substation.

Short-term, moderate, adverse impacts would be expected from increased stormwater run-off and temporary changes in drainage routing from ground disturbance associated with the Proposed Action. During construction, the ground disturbance of approximately 58,520 square feet for the proposed substation, backup generators, and underground trenching as well as 25 acres for the PV solar array would increase the potential for soil erosion and sediment transport during rain events, and potentially change the drainage routing. Soil erosion and sediment production would be minimized by implementing the installation's Storm Water Management Plan (SWMP), preparing and implementing a project-specific Stormwater Pollution Prevention Plan, complying with Section 438 of the Energy Independence and Security Act, and implementing BMPs in accordance with a PADEP-approved Erosion and Sediment Control Plan (DLA 2017a). These BMPs would contain run-off on the site and minimize the potential for adverse impacts on downstream water quality. Additionally, areas where underground trenching would occur, the site of the existing substation to be demolished, and the PV solar array area would be covered with topsoil and reseeded after construction, demolition, and installation, respectively.

Short-term, minor, adverse impacts would be expected from the generation of solid waste during construction and demolition. As shown in **Table 3-1**, demolition of the existing substation, paved

areas of O Avenue, CHP parking lot, and sidewalk for the proposed substation would generate approximately 2,790,280 pounds (1,395 tons) of solid waste, and construction of the proposed substation would generate approximately 175,423 pounds (87 tons) of solid waste. Demolition and construction debris would consist primarily of recyclable and reusable building materials such as asphalt, concrete, and metals. In accordance with the installation's Integrated Solid Waste Management Plan, all materials that could be recycled or reused would be diverted from landfills whenever possible, reducing the amount of waste disposed. Site-generated scrap materials would be separated and recycled. Clean fill material, ground-up asphalt, and broken-up cement would be diverted from the landfill and reused whenever possible (DLA 2018a).

Activity	Total (ft ²)	Multipliers (pounds/ft²)	Pounds	Tons	
Demolition					
Demolition of paved areas of O Avenue, CHP parking lot, and sidewalk	4,430	158	699,940	350	
Existing substation	13,230	158	2,090,340	1,045	
Total demolition	—	—	2,790,280	1,395	
Construction					
Proposed substation	40,420	4.34	175,423	87	
Total construction	_	-	175,423	87	

Key: $ft^2 = square feet$

Source: USEPA 2009

Short-term, negligible, adverse impacts on transportation would be expected from constructionrelated vehicle traffic to include trucks, personal vehicles, and equipment. Increased construction vehicle traffic could increase congestion on and around the installation, and require potential detours on the installation for GOVs, POVs, and commercial traffic during construction and demolition. However, the installation would implement standard traffic control BMPs to reduce or avoid potential traffic impacts.

Long-term, negligible, adverse impacts on liquid fuel and natural gas would continue from diesel and bi-fuel consumption to operate the central backup power generation plant for testing and during power outages. The existing liquid fuel and natural gas supplies would be sufficient, and no new storage tanks would be required. Long-term, moderate, beneficial impacts on the electrical system would be expected from upgrade of existing electrical infrastructure, including the addition of a central backup power generation plant and generation of renewable energy under the Proposed Action. The replacement of the aging and inefficient transformers and substation would prevent any potential power failures or disconnections that could occur if the existing substation continued to be used and deteriorate. The addition of the PV solar array would provide a renewable energy source for the installation. An additional transformer at the proposed substation would increase capacity for electrical demand on the installation from the current state. Space and circuitry for future expansion to add a fifth transformer would provide additional opportunity to further increase electrical capacity. Additionally, as discussed in **Section 1.1**, an alternate, independent power supply would provide resiliency and allow the facility to support mission priorities in the event of a large-scale power outage.

Long-term, minor, adverse impacts on stormwater would be expected from increased run-off associated with the increase in impervious surface under the Proposed Action. The Proposed Action would result in a net increase of up to 35,990 square feet of impervious surfaces. Impervious surfaces decrease the rate at which stormwater can percolate into the ground, resulting in increased stormwater run-off rates. However, as discussed in **Section 2.1**, existing stormwater underground pipes and structures within the proposed substation project area would be redesigned to provide continued collection and conveyance of additional surface water run-off within this area, minimizing potential impacts. Post-construction stormwater management controls, such as implementing low impact development (LID) strategies, would be implemented, as appropriate, in accordance with the SWMP, to reduce long-term impacts on stormwater management.

No Action Alternative

Under the No Action Alternative, DLA would not implement the Proposed Action and no new impacts on utility or transportation systems would occur. DLA would continue to use existing aging and inefficient electrical facilities that decrease mission readiness and operational efficiency. The emergency backup generators and microgrid would not be installed. The PV solar array would not be installed and would not provide alternative energy. Therefore, long-term, moderate, adverse impacts on utilities would be expected to continue.

3.2 Geological Resources

3.2.1 Existing Conditions

Geology. Defense Distribution Center Susquehanna straddles two major physiographic provinces. The northwestern 25 percent is in the Great Valley section of the Appalachian Ridge and Valley physiographic province. The southeastern 75 percent is in the Triassic Lowlands of the Piedmont physiographic province and is primarily underlain by siltstone, shale, and sandstone. In the southern portion of the installation, Marsh Run Creek has eroded a deep stream channel into the local bedrock (DLA 2019a, DCNR 2018).

Topography. Most of the installation, containing administrative and warehouse areas, is on a flat plateau that drops off sharply to the Susquehanna River. Along the western and southern boundaries of the installation is swampy lowland that contains Marsh Run Creek and Marsh Run Pond. Along the eastern and northern boundaries of the installation areas are escarpments that abruptly rise between 20 and 80 feet above the Susquehanna River's surface. Generally, developed portions of the installation have been graded to accommodate past and current development. Areas surrounding the installation are rolling to moderately hilly; however, the proposed project areas are relatively flat (DLA 2022b).

Soils. More than 90 percent of installation soils are designated as Urban land, which are areas where more than 80 percent of the surface is covered by asphalt, concrete, buildings, or other impervious covered surfaces. Urban land also includes large areas consisting of miscellaneous artificial fill. The project areas are within areas classified as Urban land. Other established soils on the installation include the following (DLA 2013a):

• Bowmansville silt loam: Deep, poorly drained soil formed in alluvial parent material; permeability is moderately slow.

- Rowland silt loam: Very deep, moderately well-drained soil formed from alluvial parent material; permeability is moderate to moderately slow.
- Penn silt loam: 3 to 8 percent slopes: Moderately fertile, with fertility ranging from good to poor; the available moisture capacity is moderate to low.

Bowmansville silt loam is classified as farmland of statewide importance, and Penn silt loam, 3 to 8 percent slopes, is classified as prime farmland. No prime farmland or soils of statewide importance are within the project areas (DLA 2013a, DLA 2019a).

Geologic Hazards. Defense Distribution Center property has a low potential for earthquake hazards, with a seismic hazard rating of approximately 8 to 16 percent gravity. Little to moderate damage to buildings would be expected from an earthquake with a 2 percent chance of occurring during a 50-year period (DLA 2022b).

3.2.2 Environmental Consequences

Proposed Action

Geology. No impacts on the geology of the project areas would occur under the Proposed Action. No geological features and regional lithology nor geological structures would be impacted by the Proposed Action.

Topography. Long-term, negligible, adverse impacts on topography would be expected under the Proposed Action. The proposed substation would be constructed within an area that is already developed; therefore, negligible impacts would occur on topography. The proposed PV solar array also would have negligible long-term impacts on topography because the proposed PV solar array location is relatively flat ground.

Soils. Short- and long-term, negligible to minor, adverse impacts on soils would be expected under the Proposed Action. In the short-term construction phase, soil would be disturbed at the existing substation from demolition efforts and from the extension of the feeder line, and at both the proposed substation and PV solar array project areas. Soil disturbance could increase soil erosion and stormwater run-off and decrease percolation ability and soil health. The proposed project areas are underlain by Urban soils and have previously been disturbed. Long-term, negligible, adverse impacts would be expected at the proposed PV solar array area from the removal of 25 acres of vegetation. Removal of this vegetation would cause soil disturbance initially; however, the area would be revegetated, minimizing long-term impacts. Applicable BMPs to limit erosion and sedimentation could include silt fencing, sediment traps, mulching, and permanent seeding.

Geologic Hazards. No impacts from geologic hazards would be expected under the Proposed Action.

No Action Alternative

Under the No Action Alternative, existing conditions as described in **Section 3.2.1** would not change, and no new impacts on geology, topography, and soils would occur.

3.3 Hazardous Materials and Wastes

3.3.1 Existing Conditions

Hazardous Materials, Petroleum Products, and Hazardous Wastes. Defense Distribution Center Susquehanna maintains an ICP, Hazardous Material and Hazardous Waste Program Maintenance Guide (PMG), and Hazardous Waste Management Plan (HWMP). The ICP consolidates procedures for preparing for and responding to spills and releases of oils and hazardous substances and materials. The ICP includes the installation's Spill Prevention Control and Countermeasures Plan, Preparedness Prevention and Contingency Plan, and Hazardous Waste Contingency Plan (DLA 2020c). The PMG summarizes applicable environmental legal and other reporting, recordkeeping, and monitoring requirements as well as training and certifications required by state and local regulations. The PMG provides guidance on file maintenance and tasks associated with management of the hazardous material and hazardous waste programs (DLA 2018b). The HWMP provides the responsibilities, policies, procedures, and practices for storing and managing hazardous wastes on the installation. It is intended to provide a basic understanding of the hazards and techniques associated with waste handling to protect personnel and prevent damage to the environment (DLA 2018c).

Hazardous materials are stored in various locations across the installation for everyday use and as mission stock. The installation uses an integrated pest management approach to minimize the types and quantities of pesticides used at the installation. The least-toxic chemical controls are used, where appropriate. Pesticides used on the installation are stored in Building 151. Outdoor mixing occurs on a curbed concrete surface attached to Building 151, and indoor mixing occurs in a sink that empties into a 5-gallon bucket. All pesticides are applied in accordance with manufacturer instructions and the installation's Integrated Pest Management Plan (DLA 2015a).

Petroleum products are used and stored across the installation for vehicle and equipment fueling, building heating, emergency electricity generation, waste oil storage, and cooking. All storage tanks comply with Pennsylvania rules governing storage tanks. Additionally, the outer wall of the buried piping is constructed of nonmetallic material to prevent corrosion. The ASTs are inspected every 72 hours for evidence of a release, spill, overflow, leakage, or other potentially hazardous environmental conditions. An oil-water separator for the heating oil AST secondary containment is within the proposed substation project area. A second oil-water separator for the CHP tanker truck unloading area is located outside of the Proposed Action project area (DLA 2020c). No hazardous materials or wastes other than petroleum products are stored, generated or disposed at the project areas.

Defense Distribution Center Susquehanna is a Resource Conservation and Recovery Act largequantity generator. Hazardous and universal wastes generated during everyday activities are collected at various satellite accumulation areas across the installation and delivered to the hazardous waste accumulation area to await proper disposal (DLA 2018c, DLA 2020c). No hazardous waste accumulation areas are present within the project areas.

Toxic Substances. Toxic substances include asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs). ACMs are generally found in building materials such as floor tiles, mastic, roofing materials, pipe wrap, and wall plaster. The U.S. Environmental Protection Agency (USEPA) has implemented several bans on various ACMs between 1973 and 1990, so ACMs are most likely in older buildings (i.e., constructed pre-1990). Lead was commonly

used in paint for many years. The federal government banned the use of most LBP in 1978; therefore, it is assumed that all structures constructed prior to 1978 could contain LBP. Because the Proposed Action does not include renovation or demolition of existing buildings, it is not anticipated that ACMs or LBPs would be encountered. Therefore, ACMs and LBPs are not discussed further.

PCBs are human-made chemicals that persist in the environment and were widely used in construction materials and electrical products prior to 1979. All structures constructed prior to 1979 potentially include PCB-containing building materials. Older electrical infrastructure also might contain PCBs. Although all PCB-containing transformers have been removed from the installation, older electrical infrastructure may contain PCBs; therefore, there is a potential for PCB-containing electrical infrastructure to be at the existing substation.

Environmental Contamination. Soil and groundwater contamination is known to exist at isolated locations across the installation. There are 63 environmental contamination sites, known as SWMUs, areas of concern, and installation restoration program sites, at Defense Distribution Center Susquehanna. All 63 sites have been closed by PADEP, with 52 sites being closed with no further action, 6 sites being closed but subject to LUCs that prohibit future development or warn of possible contamination, and 5 sites being closed but subject to groundwater monitoring (DLA 2020b). An environmental investigation for per- and polyfluoroalkyl substances (PFAS) contamination is occurring behind Buildings 87 and 315 (DLA 2022a). The investigation is ongoing, and the sampling area will be expanded.

The proposed substation project area includes SWMU No. 17, and the proposed PV solar array project area includes SWMU No. 4:

- SWMU No. 17, Vehicle Maintenance Shop Area, is the former site of the installation's vehicle and equipment maintenance facilities. Contaminants of concern were detected in soil and groundwater, and PADEP granted release of environmental liability for soil and groundwater in 2006 after the installation excavated approximately 19,300 tons of contaminated soil. PADEP imposed LUCs at the site to restrict the use of groundwater for drinking and agricultural purposes, and long-term groundwater monitoring will continue until the site reaches PADEP residential state health standards or PADEP approves a request to terminate groundwater monitoring (DLA 2020b). No groundwater monitoring wells are within the proposed substation project area (DLA 2023b). A direct contact with soil LUC area partially overlaps the proposed substation project area. This LUC requires notifying workers of existing soil conditions and safety precautions to be observed when excavating in this area (DLA 2006a).
- SWMU No. 4, Closed Sanitary Landfill, is an inactive, unlined sanitary landfill that operated until 1979. Numerous environmental studies performed at the site identified soil and groundwater contamination. Closure of the site involved placing 2 feet of clay and 2 feet of limestone gravel and vegetative cover over the landfilled materials and performing slope stabilization along Marsh Run Creek. LUCs were also implemented to restrict future development and restrict the use of groundwater for drinking and agricultural purposes. Groundwater contamination at the site is being addressed under SWMU No. 17 (DLA 2020b). Groundwater wells are present along the perimeter of the proposed PV solar array project area (DLA 2023b).

The primary contaminants of concern at SWMU No. 17 are trichloroethene; tetrachloroethene; 1,1,2,2-tetrachloroethane; and their respective daughter compounds. Based on the most recent

available annual groundwater monitoring results, contaminant concentrations continue to exceed PADEP Act 2 medium specific concentrations with predominantly decreasing trends suggesting that natural attenuation is occurring, but at a slow rate. The annual base-wide groundwater monitoring program includes inspection of LUC restrictions and areas (DLA 2023b).

Radon. USEPA rates York County, Pennsylvania, as Radon Zone 1. Counties in Zone 1 have a predicted average indoor radon screening level greater than 4 picoCuries per liter, which is USEPA's recommended mitigation action level (USEPA 2023a). Because the Proposed Action does not include renovation of existing buildings or construction of new buildings, it is not anticipated that exposure to radon would be a concern. Therefore, radon is not discussed further.

3.3.2 Environmental Consequences

Proposed Action

Short- and long-term, negligible to minor, adverse impacts would occur from the use of hazardous materials and petroleum products as well as the generation of hazardous wastes during construction, operation, and maintenance of the proposed microgrid facility. Hazardous materials that could be used include concrete, asphalt, paints, solvents, preservatives, and sealants. Petroleum products such as hydraulic fluid, oils, lubricants, diesel fuel, and gasoline would be used in vehicles and equipment supporting construction. Implementation of BMPs and environmental protection measures would reduce the potential for an accidental release of these materials. All construction equipment would be maintained according to manufacturer's specifications, and drip mats would be placed under parked equipment as needed. Additionally, all hazardous materials; petroleum products; pesticides; and hazardous, universal, and petroleum wastes used or generated during construction, operation, and maintenance would be contained, stored, and managed in accordance with the installation's ICP, PMG, HWMP, and Integrated Pest Management Plan. As stated in **Section 2.1**, diesel fuel for the bi-fuel generators would be supplied by the existing ASTs located at the CHP, and no new diesel storage tanks would be added.

PV solar panels have an estimated lifespan of 25 to 35 years. The three options for the disposal of solar panels that have reached their end of life are landfilling, recycling, or secondary use. Federal solid and hazardous waste regulations under the Resource Conservation and Recovery Act apply to solar panels if they are determined to be hazardous. Heavy metals such as lead and cadmium would be an issue if detected. With variations in design and components, some panels may contain hazardous components while others do not (USEPA 2022). Should it be determined to landfill end-of-life solar panels, disposal would be handled in accordance with the installation's Integrated Solid Waste Management Plan and federal, state, and local regulations to reduce or eliminate long-term impacts.

Some states have enacted end-of-life solar panel policies; however, Pennsylvania has not, although it is being considered (USEPA 2021). Many components of solar panels that could be recycled include glass, aluminum, copper wire, and plastic. While the solar panel recycling industry is new and still growing, recycling processes are already established for the glass, metals, and electronics industries that can accommodate solar panels. Additionally, other components of a solar power system, including inverters, racks, and storage systems, could also be recycled. Inverters could be recycled as electronic waste, racking could be recycled with similar scrap metals, and storage systems could be handled under appropriate recycling programs. Another way to avoid landfilling end-of-life solar panels would be through panel reuse, either by direct reuse or refurbishment.

Secondary reuse requires regulatory considerations such as electrical grid interconnection regulations and fire, building, and electrical codes that must be examined for solar panel reuse (USEPA 2022, USEPA 2023b). Should it be determined to recycle or reuse end-of-life solar panels, the installation would adhere to all federal, state, and local policies and regulations.

Should unknown, potentially hazardous wastes be discovered or unearthed during construction, contractors would immediately cease work, contact appropriate installation personnel, and await sampling and analysis results before taking further action. Any unknown wastes determined to be hazardous would be managed and disposed in accordance with applicable laws and regulations.

Short-term, negligible to minor, adverse and long-term, negligible, beneficial impacts could occur during removal of the existing substation. Older electrical infrastructure may contain PCBs. Appropriate measures would be taken to reduce the potential for exposure and release of these toxic substances. Additionally, contractors would wear appropriate personal protective equipment and adhere to the installation's ICP, PMG, and HWMP as well as all federal, state, and local regulations. All older electrical equipment and wastes determined to contain PCBs would be disposed at a USEPA-approved landfill. Beneficial impacts would occur from the removal of PCB-containing electrical infrastructure from the installation, if present.

Short-term, negligible, adverse impacts from environmental contamination would be expected. Although the proposed substation would occur in SWMU No. 17 and the proposed PV solar array would occur in SWMU No. 4, no impact to negligible, adverse impacts from environmental contamination would be expected. Ground disturbance associated with construction of the proposed substation and backup generators within SWMU No. 17 would be subject to DLA's LUC notification procedure to alert workers to existing soil conditions related to past contamination and appropriate safety precautions and PPE to be utilized when excavating in this area. Construction would not be expected to reach the depths of groundwater, nor would it violate the LUCs imposed by PADEP restricting the use of groundwater for drinking and agricultural purposes. Excavated materials within SWMU No. 17, if not reused onsite, would be characterized, managed, and disposed in accordance with applicable laws and regulations. The proposed PV solar array project would involve the clearing of vegetation from the entire 25 acres within SWMU No. 4, of which approximately 3.5 acres would require clearing of trees and stumps. However, it is not anticipated that vegetation and tree clearing would require ground disturbance that would reach the depths of landfilled materials, or contaminated soil or groundwater. Additionally, as discussed in Section 2.1, to avoid additional ground disturbance, the PV solar array would consist of non-penetrating, ground-mounted and ballasted solar panels, and no underground transmission lines would be installed within SWMU No. 4. Because of the LUC restricting future development within SWMU No. 4, DLA consulted with PADEP regarding construction of the proposed PV solar array on the closed landfill. PADEP reviewed and approved the proposed scope of work for the PV solar array (PADEP 2024). Construction activities, to include establishment of staging and laydown areas, would be conducted to avoid damage to active groundwater monitoring wells.

No Action Alternative

Under the No Action Alternative, DLA would not construct and operate a microgrid facility, and the existing substation would remain at its existing location. Hazardous material and waste conditions would remain as described in **Section 3.3.1**. No new impacts on hazardous materials and wastes would be expected from the No Action Alternative.

3.4 Biological Resources

3.4.1 Existing Conditions

Vegetation. The installation is in the Central Appalachian Broadleaf Forest-Coniferous Forest-Meadow Province, within the Gettysburg-Newark Lowland Section of the Piedmont Province. The main portion of the installation where the proposed substation would be located is developed with warehouse, recreational, administrative, and housing facilities, and consists mainly of mowed and maintained grasses with scattered trees and shrubs. The southern portion of the installation, where the proposed PV solar array would be located, has a 32-acre pond and 135 undeveloped acres, which consist predominately of black, red, and white oak trees (*Quercus* spp.) mixed with red maple (*Acer rubrum*), tulip poplar (*Liriodendron tulipifera*), and beech (*Fagus* spp.) trees. Eight plant communities exist on the installation, two terrestrial and six palustrine (DLA 2022b). The 25-acre proposed PV solar array project area has approximately 3.5 acres of deciduous and coniferous trees, as well as shrub, sub-canopy, and meadowland species (DLA 2015b).

Wildlife. The majority of the installation is developed and has a low to moderate habitat value for wildlife species. Wildlife species found on the installation generally include species that are adapted to human development and activities. Since 2008, 108 wildlife species have been documented within the installation; 2015 surveys documented 27 wildlife species, including 21 birds, 4 mammals, 1 reptile, and 1 invertebrate. Representative species include the Eastern painted turtle (*Chrysemys picta picta*), Eastern cottontail (*Sylvilagus floridanus*), European starling (*Sturnus vulgaris*), and white-tailed deer (*Odocoileus virginianus*) (DLA 2015b, DLA 2022b).

Protected Species. Protected species include federally and state-listed species, migratory birds, and bald eagles. Federally listed species are protected under the Endangered Species Act, migratory birds are protected under the Migratory Bird Treaty Act (MBTA), and bald eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA). Based on the USFWS Information for Planning and Consultation Resource reports, the installation's *Integrated Natural Resources Management Plan*, the USFWS MBTA list, and the Pennsylvania Natural Heritage Program species list and Inventory Record Search (PNDI-795790), 40 protected species have the potential to occur within or around the project areas (**Table 3-2**) (USFWS 2023a, USFWS 2023b, USFWS 2023c, PNHP 2019, DCNR 2023, DLA 2022b).

Of the species listed in **Table 3-2**, 24 protected species have been documented on the installation: American crow (*Corvus brachyrhynchos*), American goldfinch (*Carduelis tristis*), American kestrel (*Falco sparverius*), American robin (*Turdus migratorius*), bald eagle (*Haliaeetus leucocephalus*), black-billed cuckoo (*Coccyzus erythropthalmus*), black-capped chickadee (*Poecile atricapillus*), Canada goose (*Branta canadensis*), chimney swift (*Chaetura pelagica*), common grackle (*Quiscalus quiscula*), downy woodpecker (*Picoides pubescens*), eastern kingbird (*Tyrannus tyrannus*), great egret (*Ardea alba*), mallard (*Anas platyrhynchos*), mourning dove (*Zenaida macroura*), northern cardinal (*Cardinalis cardinalis*), northern mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), turkey vulture (*Cathartes aura*), wood thrush (*Hylocichla mustelina*), and yellow warbler (*Dendroica petechia*). All birds listed above are MBTA-protected, the bald eagle is also protected under the BGEPA, and the great egret is also protected by the state. Additionally, Monarch butterfly (*Danaus plexippus*), a federal candidate species, was documented in 2008 (DLA 2022b). None of these species have been documented at the proposed substation or PV solar array project areas. Three reptile species, listed in **Table 3-2**, are within the installation area. The northern red-bellied cooter (*Pseudemys rubriventris*), spotted turtle (*Clemmys guttata*), and wood turtle (*Glyptemys insculpta*) have been petitioned for federal listing and are on the National Domestic Listing Workplan. No species-specific surveys have been conducted, nor have any individuals been incidentally documented on the installation (DLA 2022b).

A 2023 Pennsylvania Natural Diversity Inventory search (PNDI-795790) of the installation indicated the possible presence for the northern long-eared bat (*Myotis septentrionalis*), both a federally and state-listed endangered species, as potentially present at the installation (DCNR 2023). As indicated in the 2015 consultation letter with USFWS, the installation is within an area occupied by a northern long-eared bat maternity colony (i.e., summer habitat) and within the swarming radius of a hibernaculum (i.e., winter hibernation site). Completion of the northern long-eared bat determination key indicated that additional consultation with USFWS was necessary (USFWS 2023a, USFWS 2023d). Upon further coordination with USFWS, which is included in **Appendix A**: Agency Coordination and Public Involvement, DLA agreed to implement an avoidance measure to not conduct tree removal between May 15 and August 15 (DLA 2023a). The signed PNDI receipt is included in **Appendix A**: Agency Coordination and Public Involvement (DCNR 2023). If this time of year restriction on tree clearing cannot be implemented, DLA will coordinate further with USFWS.

Name	Status	Habitat			
Mammals					
Indiana bat (<i>Myotis sodalis</i>)	FE/SE	Summer habitat includes forested areas that receive direct sunlight under the exfoliating bark of dead or dying, bottomland and floodplain habitats, and riparian areas; winter hibernacula are often mines or caves; foraging habitat occurs in closed or semi-open forested habitat, riparian areas, and forest edges			
Northern long-eared bat (<i>Myotis septentrionalis</i>)	FE/SE	Summer habitat includes buildings, shutters, under tree bark, or caves; winter hibernacula are often mines or caves; foraging habitat includes ridges, forested areas, and small streams or ponds			
Tricolored bat (<i>Perimyotis</i> subflavus)	FP/SE	Summer roosting can include trees and foliage; winter hibernacula are generally caves; foraging habitat includes waterways and forest edges			
		Birds			
American crow (Corvus brachyrhynchos) ^a	MBTA	Found in open areas near woods, in human modified landscapes (e.g., city parks, campgrounds)			
American goldfinch (<i>Carduelis tristis</i>) ^a	MBTA	Prefers forest edges and plains with thistle and brush, backyards, and parks			
American kestrel (<i>Falco sparverius</i>) ^a	MBTA	Prefers open habitats with cavities for nesting and perches for hunting			
American robin (<i>Turdus</i> <i>migratorius</i>)ª	MBTA	Found in woodlands, parks, suburban backyards, and grasslands			
Bald eagle (<i>Haliaeetus leucocephalus</i>)ª	BGEPA/ MBTA	Generally lives within 2.5 miles of the bays, lakes, coast, or other bodies of water, including rivers; nest in large, mature, accessible trees, but may also use cliffs or human-made structures			

Table 3-2. Protected Species With the Potential to Occur Within or Near the Proposed Action

Name	Status	Habitat			
Black-billed cuckoo (<i>Coccyzus</i> erythrophthalmus) ^a (2008)	MBTA	Commonly found around mature deciduous or mixed forests edges, coniferous forests, or shrubs and thickets of younger- growth forests			
Black-capped chickadee (<i>Poecile atricapillus</i>) ^a	MBTA	Prefers open sites near deep woods, commonly near edges			
Canada goose (<i>Branta</i> canadensis)ª	MBTA	Can be found in the tundra, salt and fresh marshes, lakes; feeds in open fields			
Canada warbler (Cardellina canadensis)	MBTA	Found in the forest undergrowth, shady thickets; breeds in mature mixed hardwoods; prefers moist habitat for nesting			
Chimney swift (<i>Chaetura pelagica</i>) ^a (2012)	MBTA	Likely preferred nesting in caves and hollow trees; currently uses chimneys as their preferred nesting site; need a vertical surface for nesting			
Common grackle (<i>Quiscalus quiscula</i>)ª	MBTA	Prefers open, wet woodland and marshes; parks, suburbs, and fields			
Downy woodpecker (<i>Picoides pubescens</i>) ^a	MBTA	Found in deciduous forests, parks, and back yards			
Eastern kingbird (<i>Tyrannus tyrannus</i>) ^a	MBTA	Prefers clearings within forests, open grasslands, edges of farmland, marshes, and prairies			
Great egret (Ardea alba) ^a	SE/ MBTA	Found along salt and freshwater marshes, tidal flats, and marshy ponds			
Golden-winged warbler (Vermivora chrysoptera)	MBTA	Found in cleared fields growing up to woods again, marshes, and tamarack bogs			
Mallard (Anas platyrhynchos) ^a	MBTA	Found in marshes, wooded swamps, grain fields, ponds, rivers, lakes, bays, city parks			
Mourning dove (<i>Zenaida macroura</i>)ª	MBTA	Found in open or semi-open habitat, forest clearings, suburbs, farmland, deserts, and prairies			
Northern cardinal (<i>Cardinalis</i> cardinalis) ^a	MBTA	Found in woodland edges, desert washes, thickets, gardens, towns, and semi-open or brushy habitats			
Northern mockingbird (<i>Mimus polyglottos</i>) ^a	MBTA	Prefers forest edges and open areas			
Prairie warbler (Setophaga discolor)	MBTA	Prefers early successional shrubby habitats (e.g., clearcut oak forests and young pines)			
Prothonotary warbler (Protonotaria citrea)	MBTA	Prefers woodlands and forests located near water; nests in woodpecker excavated cavities; forages in downed logs and dead standing trees along stream banks			
Red-headed woodpecker (<i>Melanerpes erythrocephalus</i>)	MBTA	Prefers deciduous woodlands, open woods, savannahs, river bottoms, orchards, parks, and grasslands with scattered trees			
Red-tailed hawk (<i>Buteo jamaicensis</i>)ª	MBTA	Found in open country, mountains, woodlands, plains, prairie groves, and roadsides with open ground and high perches			
Red-winged blackbird (<i>Agelaius</i> phoeniceus) ^a	MBTA	Found in freshwater marshes, wooded or brushy swamps, weedy fields, hayfields, and upper edges of salt marsh; forages in fields and mudflats			
Rusty blackbird (<i>Euphagus carolinus</i>)	MBTA	Prefers pastures and fields near water, flooded woods, wetlands, and swamps			
Song sparrow (Melospiza melodia) ^a	MBTA	Prefers brush, thickets, marshes, roadsides, and gardens			
Name	Status	Habitat			
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Turkey vulture (Cathartes aura) ^a	MBTA	Found in forested and open habitats, low-elevation mountains, farmlands, rangelands, and forests			
Wood thrush (<i>Hylocichla mustelina</i>) ^a (2012)	MBTA	Prefers upland mesic forests with a moderately-dense shrub layer and trees taller than 45 feet with an open forest floor, moist soil, and leaf litter			
Yellow warbler (<i>Dendroica</i> petechia) ^a	MBTA	Found near bushes, streams, swamp edges, and gardens as well as thickets and woods along stream edges, swamps, lakes, and marshes			
	Rept	iles and Amphibians			
Bog turtle (<i>Glyptemys</i> muhlenbergii)	FT/SE	Found in shallow wetland habitats; can be in the water, on land, and on top hummocky vegetation above the water			
Eastern spadefoot (<i>Scaphiopus</i> holbrooki)	ST	Prefers the sandy soils of dry habitats and can remain buried for long periods			
Northern red-bellied cooter (Pseudemys rubriventris)	ST/ NDLWP	Found in deep, fast-moving water with muddy bottoms and generous aquatic vegetation			
Spotted turtle (Clemmys guttata)	NDLWP	Prefers shallow aquatic areas with abundant vegetation			
Wood turtle (Glyptemys insculpta)	NDLWP	Generally near forested areas; may forage or nest in barrens, open grasslands, and sandy shores			
	Clams				
Green floater (<i>Lasmigona</i> subviridis)	PT	Found in slow- to medium-flow streams with good water quality, often in sand or small gravel substrates			
Insects					
Monarch butterfly (<i>Danaus plexippus</i>) ^a (2008)	FC	Monarchs are migratory and journey to central Mexico for the winter; during summer, they are found in grasslands and fields, along roadsides, and in gardens; lay eggs on obligate milkweed plants			
Plants					
Waterpod (Ellisia nyctelea)	ST	Generally found in partially shaded soils in disturbed grass or woodlands			

Key: C = Candidate; F = Federal; MBTA = Migratory Bird Treaty Act; NDLWP = National Domestic Listing Workplan; P = Proposed; S = State; T = Threatened

Sources: USFWS 2023a, USFWS 2023b. USFWS 2023c, PNHP 2019, DCNR 2023, DLA 2022b

^a = Documented on the installation in 2015 unless another year is listed

During a 2013 Phase I Habitat Assessment, potentially suitable habitat for bog turtles (*Glyptemys muhlenbergii*) was identified within the Marsh Run wetland complex in the southern portion of the installation. DLA coordinated with USFWS in November 2023 to determine if Phase II bog turtle surveys would be necessary for the construction of PV solar array, which is within 300 feet of the Marsh Run wetland complex (DLA 2022b, USFWS 2015). USFWS advised that the conservation planning polygons for the bog turtle have been modified, and Defense Distribution Center Susquehanna is no longer within any conservation planning area for the species. No further action related to bog turtles is required (**Appendix A**: Agency Coordination and Public Involvement).

3.4.2 Environmental Consequences

Proposed Action

Vegetation. Long-term, minor, adverse impacts on vegetation would be expected from the Proposed Action. An overall increase of 35,990 square feet of impervious surface would occur at the proposed substation, replacing some existing vegetation. This portion of the installation is developed and is not expected to result in a loss of native vegetation. Clearing and construction activities for the proposed 25-acre solar array would permanently remove meadow grass species and deciduous and coniferous trees, including 3.5 acres of predominantly black, red, and white oaks. Where feasible, vegetation would be reseeded and restored with native vegetation. A low-growth seed mix would be used for the PV solar array project area to avoid overgrowth and maintain appropriate height of vegetation relative to the solar panel height.

Wildlife and Habitat. Short-term, minor, adverse impacts could occur on wildlife from the Proposed Action; the impacts would be minor at the proposed substation project area because a lack of suitable habitat exists and native wildlife is uncommon in that highly developed area. Species that could be present would be expected to be habituated to human presence or would move to more suitable habitat. The PV solar array project area includes grasses and several small trees that could support small mammals and ground-nesting birds; however, this area is not considered high-quality habitat in comparison to the surrounding habitat. Wildlife species that occupy the proposed substation project area would be temporarily displaced to nearby habitat during construction but could return to the area once construction is complete. Long-term, negligible, adverse impacts on wildlife would occur from the permanent conversion and alteration of habitat at the PV solar array project area.

Protected Species. No impacts on protected species are anticipated from the construction of the proposed substation. Long-term, minor, adverse impacts on protected bat species would occur from the removal of approximately 3.5 acres of black, red, and white oaks, which are potential high-value roost trees for northern long-eared and Indiana bats. Based on previous consultation with USFWS, the installation is within an area occupied by a northern long-eared bat maternity colony and within the swarming radius of northern long-eared bat hibernaculum (USFWS 2015, DLA 2022b). These impacts are considered minor as suitable roosting habitat exists adjacent to the project area, and the installation would not conduct tree removal between May 15 and August 15 to minimize impacts during potential northern long-eared bat spring staging or fall swarming habitat, as agreed to during consultation with the USFWS in November 2023 (DLA 2023a). The USFWS correspondence and signed PNDI receipt are included in **Appendix A**: Agency Coordination and Public Involvement (DCNR 2023). If this time of year restriction on tree clearing cannot be implemented, DLA will coordinate further with USFWS.

No impacts on protected species are anticipated from the operation of the proposed substation. Operation of the proposed PV solar array could result in long-term, minor to moderate, adverse impacts on protected bird and bat species. Installation of solar panels can create a hazard to birds from "lake effects," where the bird mistakes the reflection from the solar panels for water, and to bats from potential reduced echolocation output or confused feedback (Smallwood 2020). The proposed solar array would be constructed with standard solar PV panels, which are typically constructed of dark, light-absorbing materials and covered with an anti-reflective coating designed to maximize sunlight absorption and minimize reflection.

No Action Alternative

Under the No Action Alternative, existing conditions would remain the same as described in **Section 3.4.1**. Therefore, no impacts on biological resources would occur. Location and operation of the existing substation would be unchanged and remain at its existing location, and no PV solar array would be installed.

3.5 Water Resources

3.5.1 Existing Conditions

Surface Water. Defense Distribution Center Susquehanna is located in the Lower Susquehanna watershed of the Mid-Atlantic Region and is bordered on the north and east by the Susquehanna River. Running parallel to the southern property line and flowing east into the Susquehanna River is Marsh Run Creek and Marsh Run Pond, and to the west is Yellow Breeches Creek. The central region of the property forms a plateau from which drainage flows both north and east into the Susquehanna River as well as south and west into Marsh Run Creek and Marsh Run Pond, and west to Yellow Breeches Creek (DLA 2023b). There are no streams within the project areas. Wetlands in and near the PV solar array project area are described under Wetlands subheading.

Volatile organic compounds (VOC) and semi-volatile organic compounds are monitored at eight surface water quality monitoring locations in Marsh Run Pond and Marsh Run Creek. Under Section 404 of the Clean Water Act (CWA), USEPA and the U.S. Army Corps of Engineers regulate discharge of dredged or fill material into waters of the U.S., which include navigable and non-navigable surface waters, including wetlands as defined under 40 Code of Federal Regulations (CFR) § 230.3(s). Under Section 402 of the CWA, it is illegal to discharge any point and/or nonpoint pollution sources into any surface water without a National Pollutant Discharge Elimination System (NPDES) permit. Stormwater controls for federal projects are also regulated under Section 438 of the Energy Independence and Security Act of 2007, which requires federal agencies to reduce water quality impacts from federal development that exceeds 5,000 square feet to maintain or restore predevelopment hydrology. Requirements under this regulation have been incorporated into DoD Unified Facilities Criteria (UFC) 3-210-10, *Low Impact Development*.

Groundwater. Groundwater includes the subsurface hydrologic resources of the physical environment; is generally a safe and reliable source of freshwater for the general population, especially those in areas of limited precipitation; and is commonly used for potable water consumption and agricultural, irrigation, and industrial applications. Groundwater also plays an important part in the overall hydrologic cycle, and its properties are described in terms of depth to aquifer or water table, water quality, and surrounding geologic composition.

The installation overlies the Valley and Ridge aquifer, which is not a sole-source aquifer for the region. The water table occurs in both the bedrock and the overburden soils across the Defense Distribution Center Susquehanna, with groundwater flowing either toward the Susquehanna River, or to local Susquehanna tributaries Marsh Run Creek and Yellow Breeches Creek (DLA 2023b) Depth to groundwater is approximately 0 to 30 feet. Past activities such as maintenance and repair of helicopters and the presence of landfills, salvage yards, and fuel storage tanks, have impacted groundwater quality and introduced trichloroethylene, dichloroethylene, carbon tetrachloride, and various benzene derivatives. Groundwater contamination is monitored and evaluated using 44 groundwater monitoring wells across Defense Distribution Center Susquehanna (DLA 2023b). As

discussed in **Section 3.3.1**, groundwater monitoring wells are located along the perimeter of the PV solar array project area.

Stormwater. Defense Distribution Center Susquehanna operates under a NPDES general permit for discharges of stormwater associated with industrial activities through 16 outfalls at the Marsh Run Creek and 4 outfalls at the Susquehanna River. Under the permit, the installation is required to develop a Storm Water Pollution Prevention Plan. To adhere to this requirement and as required by the 2018 PADEP, PAG-13, NPDES General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4) (3800-PM-BCW0100), DLA has developed a SWMP for Defense Distribution Center Susquehanna. Implementation of this SWMP protects water quality to the maximum extent practicable and satisfies water quality requirements of the CWA and Pennsylvania Clean Streams Law. The installation discharges into waters listed as "Impaired" by the State of Pennsylvania. As a regulated small MS4 that discharges to surface water within the Chesapeake Bay watershed, the installation also maintains and implements the installation Chesapeake Bay Pollutant Reduction Plan and program for stormwater discharges of nutrients and sediment (DLA 2017a, DLA 2022b, PADEP 2017). Stormwater runoff at the existing substation drains to underground stormwater pipes along Mifflin Avenue. At the proposed substation project area, existing underground stormwater pipes are on the west side of the project area, east of Buildings 743 and 753 and run north to south (DLA 2019b). Stormwater that falls on the PV solar array project area mainly sheet flows to the south.

Wetlands. Defense Distribution Center Susquehanna is home to 13 wetland areas, totaling 96.36 acres. Ten wetland areas, located at the southern extent of the property adjacent to Marsh Run Creek, commonly referred to as the Marsh Creek wetland complex, constitute a mixture of emergent marsh and palustrine forested wetlands and comprise 95.35 acres. At its closest point, the Marsh Run wetland complex is approximately 160 feet south of the 25-acre PV solar array project area. One 0.41-acre isolated wetland is located within the southwest portion of the PV solar array project area (USACE 2024). Near the northeastern corner of Sixth Street and Marsh Run Road is a 0.5-acre palustrine emergent wetland, and identified near the northwestern corner of the two roads is an 0.1-acre palustrine emergent wetland. These wetlands provide breeding and preferred habitat for amphibian, reptilian, wading bird, and waterfowl species. See **Section 3.4** for more information on wetland species identified within these wetland areas. Wetlands are sensitive habitats and as such are subject to federal regulatory authority under Sections 401 and 404 of the CWA and EO 11990, *Protection of Wetlands*.

Floodplains. Approximately 736 acres of Defense Distribution Center Susquehanna are above the 100-year floodplain, with 135 undeveloped acres in the southern portion of the facility, adjacent to Marsh Run Road, located within the 100-year floodplain (DLA 2022b). EO 11988, *Floodplain Management*, requires federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development whenever there is a practicable alternative. The Proposed Action project areas are not within the 100-year floodplain.

3.5.2 Environmental Consequences

Proposed Action

Surface Water. Short-term, minor to moderate, adverse impacts on water resources would be expected from construction of the Proposed Action. Construction activities, such as grading,

excavating, and recontouring of the soil, would result in soil disturbance. During storm events, stormwater flowing over land picks up and carries contaminants (e.g., soil, leaked motor oil) directly into receiving surface water bodies. The construction contractor would obtain all necessary construction permits, including an NPDES permit for stormwater discharge from the construction site, and comply with the requirements and guidelines set forth in those permits. BMPs would reduce the potential for soil erosion and prevent potentially contaminant-laden stormwater from leaving the construction site. Long-term, minor, adverse impacts would be expected on surface water due to an increase in stormwater run-off as well as potential erosion and sedimentation associated with the net increase in impervious surface of 35,990 square feet under the Proposed Action. Existing stormwater underground pipes and structures in the proposed project areas would be redesigned to provide continued collection and conveyance of additional surface water run-off, and the installation's MS4 discharge NPDES permit would be updated accordingly. Based on preliminary planning discussions, the PV solar array project area is expected to remain permeable. Project design would require applicable pre- and post-construction stormwater surveys as well as measures to address Chesapeake Bay Program impacts.

Groundwater. Long-term, minor, adverse impacts would be expected on groundwater due to an increase in stormwater run-off and potential erosion and sedimentation associated with the net increase in impervious surfaces.

Stormwater. The Proposed Action would comply with the installation's SWMP. Construction associated with the Proposed Action would result in a net increase of 35,990 square feet of impervious surfaces. The increase in impervious surfaces would result in an increase in stormwater run-off that could increase erosion and sedimentation potential within the area and result in a potential increase of pollutant loading into the surrounding surface water and groundwater. Impacts would be avoided or minimized to the extent possible through incorporation of LID strategies and implementation of proper stormwater management controls, including development of a SWMP with stormwater BMPs, to prevent flooding, erosion and sedimentation, and pollutant loading into local surface water and groundwater. Post-construction stormwater management controls would be implemented, as appropriate, in accordance with the SWMP developed for the MS4 discharge NPDES permit. Based on preliminary planning discussions, the solar array project area is expected to remain permeable. Project design would require applicable pre- and post-construction stormwater surveys as well as measures to address Chesapeake Bay Program impacts. Additionally, DLA will monitor erosion and sedimentation control measures after installation of the PV solar array to ensure no piercing or erosion of the landfill cap, and DLA will maintain monitoring reports onsite (PADEP 2024).

Wetlands. The Proposed Action would not result in direct impacts on wetlands. The small, isolated wetland within the PV solar array project area is located within the southwest portion of the project area and will be avoided and protected during construction. Additionally, LID and BMPs would be designed to avoid potential for indirect impacts on these resources.

Floodplains. The Proposed Action would not result in direct impacts on floodplains. Similar to the wetland impact analysis, indirect impacts on these resources would be avoided through proper design of LID and BMPs.

No Action Alternative

Under the No Action Alternative, existing conditions as discussed in **Section 3.5.1** would remain unchanged, and no new impacts on water resources would occur.

3.6 Cultural Resources

3.6.1 Existing Conditions

Cultural resources include archaeological resources, historic architectural or engineering resources, and traditional cultural resources that are considered important to a culture, subculture, or community for scientific, traditional, religious, or other purposes. Archaeological resources comprise areas where human activity has measurably altered the earth or deposits of physical remains are found (e.g., projectile points, bottles), but standing structures do not remain. Architectural resources include standing buildings, bridges, dams, other structures, and designed landscapes of historic or aesthetic significance. Resources of traditional, religious, and cultural importance can include archaeological resources, sacred sites, structures, neighborhoods, prominent topographic features, habitat, plants, animals, or minerals considered essential for the preservation of traditional culture (NPS 2020). Federal laws that pertain to cultural resources management include the National Historic Preservation Act (NHPA) (1966), Archeological and Historic Preservation Act (1974), American Indian Religious Freedom Act (1978), Archaeological Resources Protection Act (1979), and Native American Graves Protection and Repatriation Act (1990).

The NHPA defines historic properties as buildings, structures, sites, districts, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP). Resources found significant under NRHP criteria are considered eligible for listing in the NRHP. Historic properties are generally 50 years of age or older, are historically significant, and retain sufficient integrity to convey their historic significance. Under Section 106 of the NHPA, federal agencies must take into account the effect of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. Under this process, the federal agency evaluates the NRHP eligibility of resources within the proposed undertaking's APE and assesses the possible effects of the proposed undertaking on historic properties in consultation with the PA SHPO and other consulting or interested parties, including the public. The APE is defined as the geographic area or areas within which an undertaking (i.e., project) may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE for the Proposed Action is defined as the existing substation footprint, proposed substation project area, and proposed PV solar array project area. The APE also includes two corridors for transmission lines (one extending from the existing substation to the proposed substation project area, and one from the PV solar array project area to the proposed substation project area).

Several cultural resources investigations have been completed at Defense Distribution Center Susquehanna in compliance with Section 110 of the NHPA. These investigations consisted of a historic properties report completed in 1984 by Building Technology, Inc.; an archaeological resources study completed in 1984 by the Pennsylvania State University and the Envirosphere Company; a cultural resources evaluation conducted by Kise, Franks, and Straw in support of the 1992 Cultural Resources Management Plan; a Phase IB and Phase II archaeological investigation conducted on site 36YO0337 in 1996 and 1998, respectively, by Archaeological & Historical Consultants, Inc.; and an architectural survey of early Cold War-era buildings conducted by engineering-environmental Management, Inc. (e2M) in 2006. Together, these investigations have resulted in a 100 percent inventory of the buildings, structures, objects, and acreage at Defense Distribution Center Susquehanna. All buildings constructed prior to 1970 have been evaluated and determined ineligible for listing in the NRHP. The inventories and evaluations have identified one historic property, site 36YO0337. This archaeological site, a prehistoric camp with intact features dating from the Late Archaic through Late Woodland period, has been identified in all master planning documents, standard operating procedures, and other installation literature as being off-limits for any activity apart from mowing (DLA 2006b).

The boundaries of site 36YO0337 overlap the existing substation area, north of Mifflin Avenue. Defense Distribution Center Susquehanna follows a Preservation Plan for site 36YO0337 (DLA 2011). No other historic properties are located within the APE for the Proposed Action. Three historic properties are located adjacent to Defense Distribution Center Susquehanna: the Pennsylvania Turnpike (I-76; NRHP-eligible) south of the installation; the Northern Central Railroad (NRHP-eligible; present-day Norfolk Southern Railway), which runs along the northern and eastern boundary of Defense Distribution Center Susquehanna; and the Harrisburg State Airport (NRHP-eligible), a historic district within the present-day Capital City Airport (CXY) west and southwest of Defense Distribution Center Susquehanna. The position of these historic properties relative to the location of the existing substation, proposed substation, and proposed PV solar array are at a distance and/or have a view of the areas that is either seasonally intermittent or entirely obscured and are therefore not included in the APE because no visual, noise, or vibration effects are anticipated on those historic properties.

3.6.2 Environmental Consequences

Proposed Action

Under Section 106 of the NHPA and its implementing regulations, an adverse effect is found when an undertaking (or action) may alter, directly or indirectly, any of the characteristics of a historic property that qualify it for NRHP eligibility in a manner that would diminish the property's historic integrity of location, setting, feeling, association, design, materials, or workmanship. Examples of adverse effects on cultural resources under Section 106 can include physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or auditory elements that are out of character with the property or that alter its setting; neglecting the resource to the extent that it deteriorates or is destroyed; or the sale, transfer, or lease of the property out of agency ownership (or control) without adequate legally enforceable restrictions or conditions to ensure preservation of the property's historic significance. Adverse effects determined under Section 106 may or may not be considered significant impacts under NEPA, and considerations include the type, duration, and severity of the impacts as well as mitigation measures developed through Section 106 consultation.

One historic property, the NRHP-eligible archaeological site 36YO0337, overlaps the APE for the Proposed Action. However, the Preservation Plan for site 36YO0337 (DLA 2011) states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits within that area. The existing substation area is included within the site boundary as an area of modern disturbance beyond which intact site deposits are not likely to occur. Under the Proposed Action, all equipment, concrete pads, and fencing would be removed from the existing substation area. The area would then be covered with topsoil and reseeded. The prior ground disturbance within the existing substation area, coupled with the limited potential for ground

disturbance under the Proposed Action, create conditions that pose no adverse effect to archaeological deposits; therefore, no significant impact is anticipated under the Proposed Action.

Additionally, the feeder line extension from the existing substation to the new substation would likely be underground along or under Mifflin Avenue south of site 36YO0337. Mifflin Avenue and existing buried utilities that parallel the road form the southern boundary of the site. Due to this prior ground disturbance at the southern limit of the site, around the proposed feeder line extension area, potential impacts on archaeological deposits from these proposed activities under the Proposed Action are not anticipated.

In a letter dated April 17, 2025, the PA SHPO concurred with the no adverse effect finding for archaeological resources and determined there are no above ground historic properties present in the project APE. PA SHPO correspondence is included in **Appendix A**: Agency Coordination and Public Involvement.

No Action Alternative

Under the No Action Alternative, the microgrid facility would not be constructed, and DLA would continue to use existing aging and inefficient electrical facilities that decrease mission readiness and operational efficiency. Existing conditions would remain as described in **Section 3.6.1**. Therefore, no impacts on cultural resources would occur.

3.7 Air Quality

3.7.1 Existing Conditions

USEPA has established National Ambient Air Quality Standards for six criteria pollutants: carbon monoxide, sulfur dioxide (SO₂), nitrogen dioxide, ozone, suspended particulate matter (measured less than or equal to 10 microns in diameter and less than or equal to 2.5 microns in diameter [PM_{2.5}]), and lead. USEPA Region 3 and PADEP regulate air quality in Pennsylvania. Defense Distribution Center Susquehanna is within York County, which is within the South Central Pennsylvania Intrastate Air Quality Control Region (40 CFR § 81.105). The entire State of Pennsylvania is within the ozone transport region that includes 11 states and Washington, D.C. (40 CFR § 81.457). USEPA has designated York County as maintenance for the 2012 PM_{2.5} National Ambient Air Quality Standards and attainment/unclassified for all other criteria pollutants (USEPA 2023c). As such, the General Conformity Rule is potentially applicable to emissions of PM_{2.5} and its precursors (VOC, nitrogen oxides [NO_X], SO₂, and ammonia [NH₃]). A general conformity determination would be required if the total emissions of such pollutants exceeded specified thresholds, called *de minimis* level thresholds, as identified in 40 CFR § 93.153(b). The applicable *de minimis* level thresholds for federal action occurring in York County are 100 tons per year (tpy) for PM_{2.5}, VOC, NO_X, SO₂, and NH₃.

Defense Distribution Center Susquehanna has a Title V operating permit. Sources of air emissions at the installation include the natural gas-fired CHP, boilers, emergency generators, and industrial operations such as degreasing and woodworking (DLA 2019a). The project areas do not include any sources of air emissions.

Weather Trends and Greenhouse Gases (GHGs). South central Pennsylvania is characterized by a humid continental climate with hot, humid summers where temperatures often reach the mid-80s

degrees Fahrenheit (°F) to low 90°F, occasionally climbing higher during heatwaves in July and August. Winters can be cold, with regular snowfall and occasional freezing rain brought on by cold fronts. Spring and fall are generally mild, though spring can bring periods of severe weather including thunderstorms. Defense Distribution Center Susquehanna has average high temperatures of 83 to 87°F in summer and average low temperatures of 23 to 28°F in winter. The area has an average annual precipitation of 41.5 inches per year (DLA 2019a). Average temperatures, rainfall intensity, and the frequency and severity of floods and droughts have increased over time. Defense Distribution Center Susquehanna is not highly exposed to riverine flooding and high air temperatures. However, given the proximity of the Susquehanna River to Defense Distribution Center Susquehanna, increased intensity of precipitation as well as higher stream flows for Yellow Breeches Creek and Marsh Run could increase the potential for flooding for portions of the installation, primarily the southern central areas. The trend of higher temperatures puts more demand on cooling systems, which could put additional stress on the bulk power grid. Higher energy demand for the region could lead to an increase in electric utility outages (DoD 2023b).

GHG emissions at Defense Distribution Center Susquehanna can be attributed to vehicle exhaust; combustion of fuels in operations and maintenance equipment; and the burning of fossil fuels for boilers, emergency generators, and heating. In 2020, Pennsylvania produced 177.2 million tons of carbon dioxide equivalent (CO₂e). In the same year, York County produced 9.6 million tons of CO₂e, approximately 5 percent of Pennsylvania's CO₂e production in 2020 (USEPA 2023d).

3.7.2 Environmental Consequences

Proposed Action

This air quality analysis estimates the impacts on air quality that would result from the Proposed Action. Impacts on air quality are evaluated by comparing the annual net change in emissions for each criteria pollutant against the General Conformity Rule *de minimis* level thresholds for York County's nonattainment/maintenance pollutants (i.e., 100 tpy for PM_{2.5} and its precursors VOC, NO_X, SO₂, and NH₃). For attainment pollutants, emissions were compared against the 250 tpy Prevention of Significant Deterioration (PSD) major source threshold, as defined by USEPA for all criteria pollutants except for lead, for which the threshold is 25 tpy. USEPA's PSD permitting change threshold of 75,000 tpy of CO₂e was used as an insignificance threshold level for GHG impacts. Any action with net GHG emissions below the insignificance indicator is considered too insignificant to warrant further analysis.

The Proposed Action would result in short-term, minor, adverse impacts on air quality from the construction actions required for the microgrid facility. Emissions of criteria pollutants would be directly produced from operation of heavy construction equipment; heavy duty diesel vehicles hauling supplies and debris to and from the project areas; workers commuting daily to and from Defense Distribution Center Susquehanna in their personal vehicles; and ground disturbance, including trenching for the feeder line extension, site preparation for the new substation, and vegetation removal for the PV solar array. All such emissions would be temporary in nature and only produced during the estimated 1-year construction period. The annual air emissions from construction would not be expected to exceed the General Conformity Rule *de minimis* level or PSD thresholds; therefore, a general conformity determination would not be required and adverse impacts on air quality from construction under the Proposed Action would be minor.

Table 3-3 provides the estimated annual net change in emissions that would result from the Proposed Action. Detailed emissions calculations are included in **Appendix B**: Air Quality Supporting Documentation and Record of Non-Applicability (RONA).

Year	VOC (tpy)	NOx (tpy)	CO (tpy)	SO _x (tpy)	РМ ₁₀ (tpy)	РМ _{2.5} (tpy)	Lead (tpy)	NH₃ (tpy)	CO₂e (tpy)
2026 (Construction)	0.822	4.764	6.183	0.016	12.249	0.166	<0.001	0.007	1,662.4
2027 and Later (Operations)	1.762	23.117	10.086	0.014	0.409	0.409	<0.001	<0.001	2,061.6
<i>de minimi</i> s or PSD Threshold	100	100	250	100	250	100	25	100	75,000
Exceeds Threshold?	No	No	No	No	No	No	No	No	No

Table 3-3.	Estimated	Net A	nnual /	Air B	Emissions	from	the	Proposed	Action
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Key: CO = carbon monoxide; N/A = not applicable; PM_{10} = particulate matter measured less than or equal to 10 microns in diameter; SO_X = sulfur oxide

The greatest estimated emissions would be from particulate matter, such as fugitive dust, which is generated from ground disturbing activities (e.g., site grading, clearing of vegetation, trenching, excavation). The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the land area being worked and the activity level. Fugitive dust emissions would vary from day to day depending upon the work phase, activity level, and prevailing weather conditions. To reduce particulate matter emissions, dust suppression techniques would be used during construction and earth-moving activities. These techniques could include application of water, soil stabilizers, or vegetation; use of wind break enclosures; use of covers on soil stockpiles and dump truck loads; use of silt fences; and suspension of earth-moving activities during high-wind conditions (gusts exceeding 25 miles per hour). Additionally, construction contractors would keep work vehicles in good condition and would use diesel particulate filters to reduce emissions of criteria pollutants. These BMPs and environmental control measures could reduce particulate matter emissions from a construction site by approximately 50 percent depending upon the number of BMPs and the potential for emissions (USEPA 1985).

Long-term, negligible, adverse impacts on air quality would result from operation of the new bi-fuel backup power generators. It was estimated the new backup power generation facility could provide up to 14 days of backup power in the event of a bulk power grid outage. Operational air emissions, shown in **Table 3-3**, were estimated using a mix of 75 percent natural gas and 25 percent diesel fuel as well as a maximum continuous generator run time of 14 days (336 hours) to represent a worse-case scenario. Operational air emissions at this capacity would not exceed the *de minimis* level or PSD thresholds. It is assumed generator operations at the 14-day continuous run time would occur infrequently; therefore, emissions from generator operations would likely be less than what is shown in **Table 3-3**.

Weather Trends and GHGs. As shown in **Table 3-3**, construction for the microgrid facility would produce an estimated 1,662.4 tons of CO_2e , representing less than 0.02 percent of CO_2e emissions in York County and less than 0.001 percent of CO_2e emissions in Pennsylvania. CO_2e emissions from operation of bi-fuel backup power generators, if operated continuously for 14 days per year, would have the potential to produce an estimated 2,061.6 tons of CO_2e annually, representing approximately 0.02 percent of the total CO_2e emissions in York County. It is unlikely the emergency

generators would run for the full 14 days annually and actual emissions of CO_2e from generator use is likely to be less than what is shown in **Table 3-3**. The annual net change of GHG emissions from the Proposed Action would not exceed the insignificance threshold of 75,000 tpy; therefore, GHG emissions are considered insignificant.

Weather trends in south central Pennsylvania are unlikely to affect DLA's ability to implement the Proposed Action; however, the potential for increased intensity of precipitation could result in higher stream flows and riverine flooding, which may temporarily restrict access to some areas of the installation that could include the proposed substation and PV solar array areas. Rising temperatures, increased storm intensity, and other trends would not affect the Proposed Action.

No Action Alternative

Under the No Action Alternative, construction and operation of a microgrid facility at Defense Distribution Center Susquehanna would not occur and energy supply would not change. Existing conditions would remain as described in **Section 3.7.1**, and no impacts on air quality would occur.

3.8 Noise

3.8.1 Existing Conditions

Noise is defined as generally unwanted, obnoxious, or harmful sound. It can result in negative impacts on humans and wildlife. The standard unit of measurement for how humans respond to sound is A-weighted decibels (dBA). People generally are exposed to levels of 50 to 55 dBA or higher on a daily basis. Levels above 75 dBA become gradually more harmful as they approach 95 dBA.

The noise environment at Defense Distribution Center Susquehanna is primarily defined by airport activities at CXY northwest of the installation, such as aircraft arrivals and departures, and vehicular traffic. Approximately 97 aircraft are based at the airport, which supports approximately 75 operations a day (AirNav 2023). The Pennsylvania Turnpike borders the installation to the south. A rail line borders the installation to the north and east along the southern side of the Susquehanna River. There is no residential housing on the installation. Residential areas are outside the airport's western and northern boundaries, with more housing across Old York Road to the west. These housing areas are considered noise sensitive receptors. The project areas do not contain noise sources.

The Occupational Safety and Health Administration (OSHA) manages established workplace standards for noise under the Noise Control Act of 1972. The minimum requirement is for constant noise exposure not to exceed 90 dBA over an 8-hour period. The highest allowable sound level for workers to be constantly exposed is 115 dBA, and exposure at this level must not exceed 15 minutes during an 8-hour period (29 CFR § 1910.95).

In Pennsylvania, unmodified noise suppression systems, such as mufflers, are required for motor vehicles (75 Pennsylvania Consolidated Statutes § 4523). Ordinances are maintained by the Borough of New Cumberland, although the borough does not have any specific regulations beyond the Noise Control Act noted above.

Noise contours have not been completed for CXY; however, the ambient noise environment likely resembles an industrial setting with typical daytime ambient noise levels of approximately 67 dBA (Engineering ToolBox 2003).

3.8.2 Environmental Consequences

Proposed Action

Under the Proposed Action, short- and long-term, negligible to minor, adverse impacts on the noise environment would occur. Construction likely would not noticeably contribute to the noise environment above and beyond ambient levels that include airport activities, warehouse operations, and highway traffic. The proposed substation would be constructed within the central industrial area of Defense Distribution Center Susquehanna, where ambient noise levels are influenced by ongoing warehouse activities. The existing substation is directly north of CXY, where ambient noise levels are influenced by aircraft and railroad operations and are louder than the rest of the installation. The feeder line extension would generate temporary construction noise; however, noise levels likely would not be noticeably higher than ambient noise levels from aircraft, railroad, and warehouse operations. Impacts on noise from installation of the PV solar array would be negligible because the PV solar array project area is near an industrial area and a highway and contains undeveloped land with no noise sensitive receptors.

Demolition of the existing substation and construction of the proposed substation would result in noise levels of approximately 80 to 95 dBA at 50 feet, which would be approximately 20 dBA higher than the ambient noise environment in the immediate areas (DLA 2017b). The feeder line extension would involve trenching, likely achieving similar noise levels of approximately 73 to 86 dBA at 50 feet from construction (FHWA 2006). This construction noise would be approximately 15 dBA higher than the ambient noise environment in the immediate area but would not reach levels higher than OSHA regulations. Workers would be required to wear proper hearing protection and avoid exposure above 90 dBA for over 15 minutes, in accordance with OSHA regulations.

Following construction, operation of the microgrid facility would require backup generator testing and emergency use several times per year, which would create noise levels of approximately 81 dBA (FHWA 2006). This would be slightly louder than the existing noise environment; however, testing would be intermittent and temporary. The backup power generation plant would be at least 1 mile away from the closest noise sensitive receptor.

Construction of the PV solar array would likely be the shortest in duration and quietest of the microgrid project elements. Assembling the solar array would likely require small cranes, with a noise level of approximately 75 to 88 dBA (FHWA 2006). The area also is adjacent to the Pennsylvania Turnpike, where passing traffic contributes to the ambient noise environment.

BMPs would be implemented to suppress noise to the extent possible, such as using equipment with factory-made noise abatement compounds such as mufflers and limiting construction to normal weekday business hours. This would minimize workers within the project area as well as nearby residents, particularly within the military housing area, from experiencing excessive noise.

No Action Alternative

Under the No Action Alternative, no impacts on noise would occur at Defense Distribution Center Susquehanna. Noise conditions would remain as described in **Section 3.8.1**, and no new noise sources would be created.

3.9 Airspace Management

3.9.1 Existing Conditions

The Federal Aviation Administration (FAA) secures specific airspace and zones at and around airports through Federal Aviation Regulation Part 77 (14 CFR § 77), *Safe, Efficient Use, and Preservation of the Navigable Airspace*, and FAA Advisory Circular 50/5300-13, *Airport Design*. Federal Aviation Regulation Part 77 defines the types and dimensions of navigable airspace (imaginary surfaces) overlying and surrounding an airport that must be kept free of obstructions to help ensure safe flight approaches, departures, and pattern operations.

The closest airport to Defense Distribution Center Susquehanna is CXY, which abuts the northwestern boundary of the installation. CXY has two active runways: Runway 08/26, which runs in a northeast-southwest direction; and Runway 12/30, which runs in a northwest-southeast direction, and accommodates smaller privately owned aircraft and occasionally military aircraft. Harrisburg International Airport (MDT) is approximately 2.5 miles west of Defense Distribution Center Susquehanna and has one active runway, Runway 13/31, which runs in a northwest-southwest-southwest-southwest-southwest-southwest-southwest-southwest-southwest-southwest direction. The Susquehanna Area Regional Airport Authority controls both airports.

The existing substation is within the transitional surface of CXY Runway 08/26, which is an imaginary surface that extends outward and upward from the runway primary surface at a slope of 7:1 to a height of 150 feet. The portion of Mifflin Avenue directly northeast of Runway 08/26 is within the approach surface that extends outward and upward 10,000 feet to the northeast from the runway end at a slope of 20:1. No facilities or structures are within the approach slope. A portion of Mifflin Avenue east of the golf course, the proposed substation project area, and the proposed PV solar array project area underlie the CXY horizontal surface, which is an imaginary surface that starts at the end of the transitional surface and extends to a radius of 10,000 feet above the runway centerline at an elevation of 150 feet above the established airfield elevation. Additionally, the entire installation underlies the approach surface that extends northwest from the end of MDT Runway 13/31; however, the floor of the imaginary surface is more than 1,000 feet above the MDT airfield elevation where it overlies the installation (PennDOT 2013).

FAA Advisory Circular 50/5300-13, *Airport Design*, established airport design standards for obstaclefree areas on the ground along and beyond the extents of airport runways to enhance the safety and protection of people and property on the ground. Runway protection zones (RPZs) are ground-level trapezoidal areas underlying approach surfaces that begin 200 feet beyond the end of a runway and extend to a distance at least 1,000 feet (FAA 2022). The RPZs for CXY Runways 12/30 and 08/26 underlying the approach surfaces at the southeastern end of Runway 12/30 and northeastern end of Runway 08/26 extend onto the installation. A few lighting and overhead electrical poles are within the RPZ for Runway 12/30 but do not intersect the 20:1 approach slope. These poles are equipped with obstruction lights that alert approaching aircraft of their presence (DLA 2019a). No facilities or structures are within the RPZ for Runway 08/26; however, the RPZ is intersected by an approximate 0.2-mile segment of Mifflin Avenue near the existing substation. FAA policy (14 CFR § 77.5(c)) directs federally obligated airports to consider the potential for visual impact from glint and glare to pilots and air traffic control personnel (FAA 2021). While FAA policy does not require review and approval of solar arrays that are not on airport property, FAA encourages project proponents to consider visual impacts of the solar array and coordinate with the local airport for installation of solar arrays near airports (14 CFR § 77.9).

3.9.2 Environmental Consequences

Proposed Action

Impacts on airspace management from the Proposed Action would be negligible. The Proposed Action does not include aircraft operations, proposals for new airspace, or changes to existing airspace or airspace configurations (i.e., size, shape, location); therefore, the type or conduct of flight operations at CXY and MDT would not be affected by the Proposed Action. Defense Distribution Center Susquehanna would comply with all restrictions on development underlying the imaginary surfaces and within the RPZs. All structures required for the Proposed Action would be designed and constructed to comply with height restrictions to ensure the airspace around the runway remains free of obstructions and to maintain safe flight approaches, departures, and pattern operations. Construction of facilities, structures, or additional poles within the RPZs would not be required. The proposed substation and PV solar array would underlie the CXY horizontal surface, which begins at an elevation of 150 feet above the established airfield. The substation and PV solar array would be constructed at a height of less than 150 feet and would avoid intersecting the horizontal surface. Therefore, the Proposed Action would not introduce obstructions to the imaginary surfaces or RPZs, and would not violate any imaginary surface or RPZ restriction.

The PV solar array would be within the southern portion of the installation, approximately 0.8 mile from the nearest runway surface. Solar PV arrays are generally a compatible land use at and near airports because of their low profile; however, potential issues affecting pilots and air traffic control may include communications interference and reflectivity (FAA 2018). The proposed PV solar array project area is more than 3,500 feet southeast of CXY at its closest point. Setbacks of 150 to 500 feet between solar PV arrays and communications equipment are typically sufficient to prevent communications interference (FAA 2021). Therefore, the distance of the proposed solar farm from CXY would prevent interference with airport communications.

Potential impacts of solar panel reflectivity include glint and glare affecting the vision of pilots and air traffic control personnel. The amount of light reflected off a solar panel depends on the amount of sunlight hitting the surface, its surface reflectivity, geographic location, time of year, cloud cover, and solar panel orientation (FAA 2018). The proposed solar array would be constructed with standard solar PV panels, which are typically constructed of dark, light-absorbing materials and covered with an anti-reflective coating designed to maximize sunlight absorption and minimize reflection. Further, FAA has concluded that in most cases, the glint and glare from PV solar arrays to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features (FAA 2021). The design of the proposed PV solar array would employ BMPs to assess and avoid or reduce potential glint and glare impacts. Additionally, the proposed PV solar array would be constructed and operated within an area where it would have a low profile relative to the rest of the installation, and the line of sight between the CXY air traffic control tower and the PV solar array would generally be blocked by existing warehouse facilities and forested areas. Therefore, impacts on airfield or airspace management would be negligible. Defense

Distribution Center Susquehanna would coordinate with CXY and FAA on potential visual impacts (i.e., glint and glare), as applicable, during the PV solar array design process.

No Action Alternative

Under the No Action Alternative, construction and operation of a microgrid facility at Defense Distribution Center Susquehanna would not occur. Existing conditions would remain as described in **Section 3.9.1**, and no impacts on airspace management would occur.

3.10 Aesthetic and Visual Resources

3.10.1 Existing Conditions

Regional Visual and Aesthetic Characteristics. Defense Distribution Center Susquehanna is within an area of suburban, residential, and industrial influence. The installation is surrounded by CXY to the northwest, the Borough of New Cumberland to the west, the Pennsylvania Turnpike to the south, and the Susquehanna River to the north and east. The portion of the Pennsylvania Turnpike near the installation is not considered a scenic byway in Pennsylvania (PennDOT 2021). The Susquehanna River is a major aesthetic resource within the region, providing separation between New Cumberland and Harrisburg. The Susquehanna River is not a statewide Scenic River nor federally recognized river in the National Wild and Scenic River System (DCNR 2007, WSR 2023).

Installation Visual and Aesthetic Characteristics. The visual environment of Defense Distribution Center Susquehanna can be described through both visual themes and zones as described in the 2013 Installation Design Guide (DLA 2013b). Designated themes and zones were established through the use of site surveys, maps, visual investigations, interviews, and photographs of existing buildings and their surrounding areas. Visual themes and zones provide guidance on and unify the "look" of the installation by establishing strong, clear, and consistent images of buildings and areas. Visual themes and zones are described in **Table 3-4**.

Theme/Zone	Description
	Visual Themes
Industrial	The industrial facility's visual theme encompasses buildings used for warehousing, maintenance, motor pool, packaging, and related activities. The size, form, and arrangement of buildings in the industrial visual theme mostly reflect that of typical warehouse and open storage. They are direct expressions of the functional activities and equipment they accommodate.
Administration	The administration visual theme includes facilities such as offices and managerial/administrative spaces.
Community	The community visual theme includes facilities such as the Child Development Center, DLA Police and Fire Station, U.S. Army Health Clinic, Chapel Bowling Alley, and Physical Fitness Center.
Residential	The housing visual theme includes single and multi-family residential homes for Army officers, non-commissioned officers, and enlisted personnel.
Recreational	This visual theme includes recreational facilities such as swimming pools, a golf course, baseball fields, tennis courts, and picnic areas.

Table 3-4. Defense Distribution Center Susquehanna Visual Themes and Zones

Theme/Zone	Description			
Visual Zones				
Zone I: Entrance Corridor	The entrance corridor is the stretch of road running through Mifflin Avenue and Mission Drive located between ACPs 1 and 2. The road winds around the end of the CXY runway. The entrance corridor is lined with mature shrubs and various military displays of helicopters, tanks, and jet fighters that create a positive first impression of the installation.			
Zone II: Mission Functions	The original warehouse area at the installation was built of repetitive buildings arranged in a tight grid. Railroad access alternated with vehicular access on either building side, forming a consistent and efficient architectural and functional circulation diagram. Because of the substantial shift from the reliance on rail transportation to truck transportation, as new buildings were built and original buildings were demolished, the original grid pattern became lost. This tendency to deviate from the general grid may have arisen in an effort to meet the individual functional requirements of each successive building.			
Zone III: Community Support/Administration	The community support/administration zone is the northern area of the installation located outside the warehouse security fence. It incorporates mixed uses and building types, and has recently undergone renovation. Facilities in this zone include community, administrative, and tenant use as well as recreation.			
Zone IV: Family Housing ¹	Family housing consists of single- and multi-family housing. Some of the older homes were built with hip and gabled roofs, red brick walls, white wood trim elements, and double-hung sash windows. Recent housing construction include two-story, single-family homes and duplexes with red brick finished exterior façades, gabled metal roofs, and strong entrance elements such as porticos or covered porches to resemble a Georgian-style architecture. ¹			
Zone V: Natural Area/Buffer	This zone encompasses the entire southern edge of the installation. This area serves as a 1,000-foot buffer from the Pennsylvania Turnpike. A pond (Marsh Run Pond) and human-made wetlands cover the western end, and the eastern section is forested. A closed sanitary landfill with development restrictions on the northern side is an open, flat space, surrounded by a gravel road. A practice firing range at the eastern end of the zone also has development restrictions. The Marsh Run Pond is available for fishing and some recreational activity.			

Source: DLA 2013b

¹ Structures remaining in the Family Housing Zone are no longer used for military family housing.

The proposed substation and PV solar array project areas are in Visual Zones II (Mission Functions) and V (Natural Area/Buffer), respectively. The visual theme of the proposed PV solar array project area is recreational, and the visual theme of the proposed substation project area is industrial. The proposed PV solar array project area is an open space, surrounded by trees to the west, east, and south and by industrial buildings to the north.

3.10.2 Environmental Consequences

Proposed Action

Long-term, negligible to minor, adverse impacts on visual and aesthetic resources would be expected under the Proposed Action from permanent alterations to current visual aesthetics and potential glint and glare impacts both on- and off-installation.

Long-term, minor, adverse impacts could occur from glint and glare associated with the proposed PV solar array, which could have the potential to impact aircraft/airport operations at CXY and motorists on the Pennsylvania Turnpike. Glint and glare impacts on pilots and air traffic control personnel are discussed in **Section 3.9**. As discussed in **Section 3.9**, the amount of light reflected off a solar panel

depends upon the amount of sunlight hitting the surface, its surface reflectivity, geographic locations, time of year, cloud cover, and solar panel orientation. Although some solar panels are marketed as having "anti-glare" properties, no solar panel absorbs 100 percent of incoming light. Therefore, any solar PV panel has the potential to produce solar reflection (Watson 2020, Scrivener et al. 2022). Defense Distribution Center Susquehanna would coordinate with CXY and FAA on potential visual impacts (i.e., glint and glare), as applicable, during the PV solar array design process.

Glint and glare from the proposed PV solar array may be observable from motorists along the Pennsylvania Turnpike; however, the proposed PV solar array would be constructed at a lower elevation than the Pennsylvania Turnpike and would be blocked from the view of motorists by tree cover that spans the length of the Pennsylvania Turnpike where it follows the southern boundary of the installation with minimal gaps. PV solar system technology that may reduce glare include tracking technology, which allows panels to rotate throughout the day, and suboptimal positioning, which allows the panels to tilt a few degrees east or west to reduce glare (Olson 2021). Additional minimization BMPs could be incorporated during design of the PV solar array, including conducting a glint glare study to inform positioning of solar panels to reduce glare effects and preparing a screening/buffer planting plan to minimize visual effects to motorists. Defense Distribution Center Susquehanna would coordinate with the Pennsylvania Turnpike Commission during the design process to assess potential glint/glare impacts to motorists on the Pennsylvania Turnpike and to identify appropriate glint/glare reduction measures.

The microgrid facility would be designed and constructed in accordance with the visual themes and zones of Defense Distribution Center Susquehanna, according to the 2013 Installation Design Guide. Therefore, no impacts on visual resources or aesthetics as they relate to established visual zones and themes would occur.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not occur; therefore, the existing conditions as described in **Section 3.10.1** would remain unchanged.

Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna

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4 Cumulative and Other Impacts

4.1 Cumulative Impacts

Cumulative impacts are impacts on the environment that result from the incremental effects of a proposed action when added to the effects of other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 14 1508.1(g)(3)). Past actions are those actions, and their associated impacts, which have shaped the condition of the existing environment, as described in **Section 3**.

This cumulative impacts analysis considers past, present, and reasonably foreseeable future actions at Defense Distribution Center Susquehanna and the surrounding area that could have a causal relationship with the Proposed Action and may result in cumulative impacts. Past actions are described in **Section 3**, and the present and reasonably foreseeable future actions identified for this analysis are:

- Demolish Building 404: DLA proposes to demolish Building 404 (approximately 16,500 square feet) at the southwestern corner of J Avenue and 3rd Street. Demolition is expected to begin in 2027.
- Construct general purpose warehouse (GPW), Building 730: DLA proposes to construct a 424,500-square-foot warehouse on the footprint of former Buildings 1 and 2 between O and U Avenues to support bulk storage modernization, improve efficiency, and consolidate operations. Construction of Building 730 is planned to start in 2028.
- Demolish Buildings 52, 53, and 54: DLA proposes to demolish Buildings 52, 53, and 54, totaling 610,331 square feet, which are northeast of Building 753 and are used as warehouses. The buildings would be replaced by a proposed new GPW (Building 754) totaling 800,000 square feet. Demolition is planned for 2031.
- Construct GPW, Building 734: DLA proposes to construct a 425,500-square-foot GPW on the footprint of former Buildings 5 and 6 between M and N Avenues. Construction of Building 734 would occur in 2031 (DLA 2023c).

All environmental resource areas were initially evaluated for potential direct impacts from the Proposed Action. The initial evaluation determined that some environmental resource areas (i.e., health and safety, land use, and socioeconomics) would not be directly impacted and were not analyzed in detail in this EA.

The Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would not result in cumulatively significant impacts on any resource area. The resource areas that have the potential to be cumulatively affected by the Proposed Action are presented in the following paragraphs, which describe the non-significant cumulative impacts that would occur from the Proposed Action when combined with past, present, and reasonably foreseeable future actions.

Infrastructure and Transportation. Construction and demolition associated with the Proposed Action and present and reasonably foreseeable future actions at Defense Distribution Center Susquehanna could result in temporary service interruptions should utility lines need to be rerouted, or when new facilities are disconnected from or connected to utility distribution systems. Workers required for the Proposed Action and the reasonably foreseeable future actions would contribute additive traffic on the installation; however, additive traffic levels would be temporary and would likely

fluctuate depending upon the level of construction and area of the installation within which construction is occurring. Such utility interruptions and construction traffic, should they occur concurrently, would result in short-term, minor, adverse, cumulative impacts. Construction of new infrastructure, upgrading of utilities, consolidation of warehousing functions, and demolition of older infrastructure would increase utility efficiency on the installation, resulting in long-term, minor to moderate, beneficial, cumulative impacts. Potential increases of demand on the installation's utility and transportation systems from construction of new facilities would not be expected to exceed such systems' capacities. Therefore, cumulative impacts on infrastructure and transportation from the Proposed Action, when combined with other past, present, and reasonably foreseeable future actions, would not be significant.

Geological Resources. Ground disturbance associated with the construction and demolition activities for the Proposed Action and present and reasonably foreseeable future actions could result in increased soil erosion and sedimentation beyond what was described for the Proposed Action alone, resulting in short-term, minor, adverse, cumulative impacts. Adverse, cumulative impacts would be limited because the proposed construction and demolition actions would occur predominantly on previously disturbed or developed land. In particular, Buildings 730, 734, and 754 would be sited where similar buildings once stood or would replace existing buildings. Cumulative impacts from construction would be temporary and would not permanently alter the topography, soils, or geology on the installation. Implementation of BMPs and environmental protection measures, including erosion control measures, would be used to minimize the potential for erosion and further impacts. Permanent changes in impervious surface cover from the reasonably foreseeable future actions, when combined with the estimated increase in impervious surfaces for the Proposed Action, could increase rates of erosion and sedimentation, resulting in long-term, minor, adverse, cumulative impacts. However, most proposed facilities under the reasonably foreseeable future actions would either replace existing facilities or be sited within areas that were previously impervious, which would reduce the potential for further adverse impacts on soils. Therefore, the Proposed Action, when combined with other past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on geological resources.

Hazardous Materials and Wastes. Construction and demolition for the Proposed Action, when combined with the construction and demolition actions of the present and reasonably foreseeable future actions, would result in short-term, negligible to minor, adverse, cumulative impacts on hazardous materials and wastes management. These impacts would result from the use of hazardous materials and petroleum products; generation of hazardous wastes during construction and modification actions; potential disturbance of toxic substances during facility demolition or modification; and the potential for overlap with environmental contamination sites. The use and generation of hazardous materials and wastes during construction and demolition would be unavoidable; however, the hazardous materials and wastes would be handled in accordance with federal, state, and local laws, regulations, and policies. Demolition of the existing substation and potential PCB-containing electrical infrastructure, and of Buildings 52, 53, and 54, which were constructed in 1942 and may contain ACMs, LBP, and PCBs, would eliminate toxic substances from the installation, resulting in long-term, minor, beneficial, cumulative impacts. Therefore, the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on or from hazardous materials and wastes.

Biological Resources. Ground disturbance and permanent removal of vegetation from construction and demolition for the Proposed Action and present and reasonably foreseeable future actions could result in long-term, minor, adverse, cumulative impacts on biological resources. Localized loss of habitat, degradation of habitat, noise impacts, or direct physical impacts on species can have a cumulative impact when viewed on a regional scale if that loss or impact is compounded by other events with the same end results. The reasonably foreseeable future actions would occur within highly developed areas of the installation where suitable habitat for threatened and endangered species and native wildlife is uncommon; therefore, the reasonably foreseeable future actions likely would not result in a compounded loss of suitable habitat when combined with the wildlife and habitat impacts from the Proposed Action. DLA would continue to follow the management measures outlined in the installation's *Integrated Natural Resources Management Plan* to avoid adverse impacts on biological resources. Therefore, the Proposed Action, when combined with other past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on biological resources.

Water Resources. Permanent changes in impervious surfaces would lead to an increase in stormwater run-off that could increase erosion and sedimentation and the potential for pollutant loading into surface and groundwater. Additive increases in impervious surfaces from the Proposed Action and present and reasonably foreseeable future actions would result in long-term, minor, adverse, cumulative impacts. However, most proposed facilities under the reasonably foreseeable future actions would either replace existing facilities or be sited within areas that were previously impervious, which would reduce the potential for further adverse impacts on soils. All actions on the installation would comply with the installation's SWMP and incorporate LID strategies and BMPs to reduce potential impacts. Therefore, the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on water resources.

Cultural Resources. Defense Distribution Center Susquehanna contains one historic property, site 36YO0337, which overlaps the existing substation area that would be demolished under the Proposed Action. As identified in **Section 3.6.2**, site 36YO0337 would not be adversely affected by the Proposed Action. None of the present and reasonably foreseeable future actions identified above would occur within or near site 36YO0337 and would have a low probability of adversely affecting site 36YO0337. Additionally, the Proposed Action and reasonably foreseeable future actions would be sited within the installation's interior, with sufficient distance away from off-installation NRHP-eligible properties, such as the Pennsylvania Turnpike (I-76) to the south, so as to not result in visual, noise, or vibration effects to those properties. Therefore, the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on cultural resources.

Air Quality. Construction for the present and reasonably foreseeable future actions that coincide with construction for the Proposed Action, such as construction of Building 734, construction of Building 730, and demolition of Building 404, may contribute additional air emissions in York County, resulting in short-term, minor, adverse, cumulative impacts. However, such emissions would be temporary in nature and would cease upon completion of construction. The General Conformity Rule *de minimis* level and PSD thresholds are applied to each individual project; therefore, the additive emissions of criteria pollutants from construction or demolition for the reasonably foreseeable future actions would not be combined with the construction emissions from the Proposed Action and would not lead to an exceedance of any emissions threshold applied to the Proposed Action. Long-term,

negligible, adverse, cumulative impacts could occur from foreseeable incremental increases in operations for new facilities (i.e., Buildings 730, 734, and 754); however, long-term, minor, beneficial, cumulative impacts would occur from the net decrease in operational air emissions from removal of stationary emissions sources (e.g., boilers, emergency generators) associated with building demolition (i.e., Buildings 404, 52, 53, and 54). Potential additive emissions would not be considered significant for the region; therefore, cumulative impacts on air quality from the Proposed Action, when combined with other past, present, and reasonably foreseeable future actions, would not be significant.

Noise. Construction and demolition for the Proposed Action and present and reasonably foreseeable future actions would result in intermittent, temporary, additive noise levels. If conducted concurrently, the construction and demolition associated with the Proposed Action and the reasonably foreseeable future actions would produce additive noise levels a few dBA greater than what would be produced by the Proposed Action alone. The temporary increases in noise would be limited to areas in the vicinity of the projects. Sensitive noise receptors, such as the housing area to the west of the installation, could experience short-term, minor, adverse, cumulative impacts from increased noise. New warehouse facilities would be sited among existing warehouses; therefore, the nature and levels of noise from new facility operations would be comparable to existing noise levels, consistent with noise levels typical for Defense Distribution Center Susquehanna. Therefore, the Proposed Action, when combined with past, present, and reasonably foreseeable actions, would not result in significant cumulative impacts on noise.

Airspace Management. New facilities proposed as part of the reasonably foreseeable actions would be sited away from the RPZs and would not intersect any imaginary surface associated with the runways at CXY and MDT. All structures required for the Proposed Action and the reasonably foreseeable future actions would be designed and constructed to comply with height restrictions to ensure the airspace around the runways remains free of obstructions and to maintain safe flight approaches, departures, and pattern operations for aircraft. Additionally, Defense Distribution Center Susquehanna would coordinate with CXY, MDT, and FAA on potential glint and glare impacts. Therefore, the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on airspace management.

Aesthetic and Visual Resources. Design and construction of new facilities (i.e., Buildings 730, 734, and 754) would follow the applicable visual zones and themes as identified in the *2013 Installation Design Guide*. Therefore, the Proposed Action, when combined with past, present, and reasonably foreseeable future actions, would not result in significant cumulative impacts on aesthetic and visual resources.

4.2 Unavoidable Adverse Effects

Unavoidable adverse impacts would result from the Proposed Action but would be negligible to minor. Specific unavoidable impacts include construction noise, solid waste generation, air emissions, increased stormwater run-off and soil erosion from the added impervious surface, vegetation and wildlife habitat removal, temporary utilities disruption, transportation disruptions, and hazardous material use and hazardous waste generation during construction. These impacts are discussed in detail in **Section 3**. None of these impacts would be significant. No unavoidable adverse impacts on cultural resources or airspace management would occur from the Proposed Action.

4.3 Compatibility of the Proposed Action and Alternatives with the Objectives of Federal, Region, State, and Local Land Use Plans, Policies, and Controls

The Proposed Action would not result in significant or incompatible land use changes on- or offinstallation. The Proposed Action would be consistent with all Defense Distribution Center Susquehanna planning reports, including the Master Plan and Area Development Plan, and UFC requirements, including UFC 4-010-01 and UFC 4-020-01. The Proposed Action would not violate any federal, regional, state, or local policies. Siting of new facilities and the nature of activities for the Proposed Action would not conflict with the current or future uses of the affected areas. The Proposed Action would not conflict with the designated airspace associated with CXY or any associated land use ordinances.

4.4 Relationship Between Short-term Uses of the Environment and Maintenance and Enhancement of Long-term Productivity

The Proposed Action would not require short-term uses of environmental resources that would result in long-term compromises of productivity. Short-term uses of the human environment include the direct impacts that would result from construction and demolition activities. The potential short-term, adverse impacts from the Proposed Action include noise and air emissions, soil erosion and sedimentation, hazardous material use and solid waste generation, utility disruption, vegetation and wildlife habitat disruption, and construction traffic. These types of short-term impacts would persist only during construction and demolition activities within localized areas. Generally, disturbed areas would recover once ground-disturbing activities, temporary noise, and construction traffic cease. Long-term uses of the human environment include those impacts that may result in permanent resource loss. Permanent removal of vegetation would be considered an adverse impact on the long-term ecological productivity within Defense Distribution Center Susquehanna; however, it is not anticipated that the loss of vegetation would permanently narrow the range of beneficial uses of the environment. Long-term, beneficial impacts include improving sustainment and energy security through alternative energy sources and improving backup power generation to provide a reliable power source independent of the bulk power grid.

4.5 Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable resource commitments are related to the impacts on or losses of resources (e.g., energy minerals) that cannot be reversed or recovered, even after an activity has ended and facilities have been decommissioned. Impacts from consumption of these resources is considered to be permanent. Material resources irretrievably used for the Proposed Action include steel, concrete, aluminum, copper, and other electrical transmission materials; however, these materials are not in short supply. Energy resources, including fossil fuels (e.g., diesel, gasoline, natural gas) would be irretrievably lost; however, consumption of fuels would not place a significant demand on their availability within the region. The generation of solid wastes from construction and demolition and the subsequent disposal of such wastes in a landfill would be an irretrievable loss of landfill space, which would be reduced through recycling practices. Therefore, no significant adverse impacts would be expected from irreversible and irretrievable commitment of resources.

The use of human resources for demolition and construction is considered an irretrievable loss only in that it would preclude such construction crews from engaging in other work activities. The use of temporary workers for the Proposed Action would represent employment opportunities and is considered beneficial but not significant.

4.6 Energy Requirements and Conservation Potential

The Proposed Action would involve the consumption of fossil fuels for construction equipment, contractor vehicles, and operation of the bi-fuel generators. The Proposed Action also would reduce energy consumption through onsite solar energy generation.

4.7 Natural or Depletable Resource Requirements and Conservation Potential

The Proposed Action would require the use of natural or depletable resources such as construction materials and other raw materials, and non-renewable energy supplies for construction and demolition activities as well as operation of the bi-fuel generator. Natural or depletable resources and energy supplies, although relatively small, would be an unavoidable occurrence, although not considered significant.

5 Summary of Potential Environmental Impacts

The introduction to **Section 3** lists the resource areas analyzed in detail in this EA. **Table 5-1** summarizes the potential impacts of the Proposed Action and the No Action Alternative on the environmental resource areas analyzed in detail in **Section 3**. Implementation of the Proposed Action or No Action Alternative would not result in any individual or cumulatively significant impacts. Therefore, preparation of an EIS is not warranted, and issuance of a Finding of No Significant Impact would be appropriate.

Resource Area	Proposed Action	No Action Alternative
Infrastructure and Transportation	Short-term, negligible to moderate, adverse impacts (utilities and transportation); long-term, negligible to minor, adverse impacts (utilities); long-term, moderate, beneficial impacts (utilities)	Continued long-term, moderate, adverse impacts (utilities); no new impacts (utilities and transportation)
Geological Resources	Short-term, minor, adverse impacts (soils); long- term, negligible, adverse impacts (topography and soils); no impacts (geology and geologic hazards)	No new impacts (geology, topography and soils)
Hazardous Materials and Wastes	Short- and long-term, negligible to minor, adverse impacts; long-term, negligible, beneficial impacts	No impacts
Biological Resources	Short-term, minor, adverse impacts (wildlife and habitat); long-term, negligible to minor, adverse impacts (vegetation and protected species)	No impacts
Water Resources	Short-term minor to moderate, adverse impacts (surface water); long-term, minor, adverse impacts (surface water and groundwater); no impacts (wetlands and floodplains)	No new impacts
Cultural Resources	No impacts	No impacts
Air Quality	Short-term, minor, adverse impacts; long-term, negligible, adverse impacts	No impacts
Noise	Short- and long-term, negligible to minor, adverse impacts	No impacts
Airspace Management	Long-term, negligible, adverse impacts	No impacts
Aesthetic and Visual Resources	Long-term, negligible to minor, adverse impacts	No impacts

Table 5-1. Potential Impacts of the Proposed Action and No Action Alternative

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Agency Coordination and Public Involvement

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Appendix A: Agency Coordination and Public Involvement

A.1 Distribution List

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Tribes

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A.2 Letter to the Susquehanna Area Regional Airport Authority

[[Preparer's Note: Placeholder – This appendix will include the Susquehanna Area Regional Airport Authority letter and response.]] Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna

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A.3 Letter to the State Historic Preservation Office



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Ms. Emma Diehl Division Manager, Environmental Review Pennsylvania Historical and Museum Commission State Historic Preservation Office 400 North Street Commonwealth Keystone Building, 2nd Floor Harrisburg, Pennsylvania 17120-0093

Dear Ms. Diehl,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) requests consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and provides information about the project, the Area of Potential Effects (APE). The completed PHMC Project Review Form is included with this letter.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location co-located with the central heating plant.

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The APE for the proposed action incorporates:

- a. The existing substation footprint
- b. The proposed substation project area (approximately 77,620 square feet)
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4)
- d. Two transmission line corridors (one extending from the existing substation to the

proposed substation project area, and one from the PV solar array project area to the proposed substation project area)

e. The entire APE has been previously disturbed from prior construction and demolition projects.

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

DM-FSE is coordinating the NHPA Section 106 review for compliance with the National Environmental Policy Act and is preparing an Environmental Assessment. We request concurrence with the APE, identification of historic properties, and determination of no adverse effects. DM-FSE is also consulting with twelve Native American tribes (Absentee-Shawnee Tribe of Indians of Oklahoma, Cayuga Nation, Delaware Nation, Eastern Shawnee Tribe of Oklahoma, Onondaga Nation, The Osage Nation, Seneca-Cayuga Nation, Seneca Nation of Indians, The Shawnee Tribe, Saint Regis Mohawk Tribe, Tonawanda Band of Seneca, and Tuscarora Nation) regarding the proposed undertaking and will notify PHMC if additional historic properties are identified during this consultation.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

MONTEFOUR.ROB ERT.A.1229146218 Dete: 2025.03.10 08:09:59 -04'00'

Robert A. Montefour Site Director DLA Installation Management

Enclosure:

1. Pennsylvania Environmental Review Submission: KNBOCYSTAXA2



April 17, 2025

Sent Via PA-SHARE

RE: ER Project # 2025PR01990.001, Defense Distribution Center Susquehanna Microgrid Facility Construction and Operation, Department of Defense, Fairview Township, York County

Dear Submitter,

Thank you for submitting information concerning the above referenced project. The Pennsylvania State Historic Preservation Office (PA SHPO) reviews projects in accordance with state and federal laws. Section 106 of the National Historic Preservation Act of 1966, and the implementing regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation, is the primary federal legislation. The Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988) is the primary state legislation. These laws include consideration of the project's potential effects on both historic and archaeological resources.

Above Ground Resources

No Above Ground Concerns - Environmental Review - No Historic Properties - Above Ground

Based on the information received and available in our files, it is our opinion that there are no above ground historic properties (resources listed in or eligible for listing in the National Register) present in the project area of potential effect. Therefore, no above ground historic properties will be affected by the proposed project. Should the scope of the project change and/or new information be brought to your attention regarding historic properties located within the project area of potential effect, please reinitiate consultation with our office using PA-SHARE.

For questions concerning above ground resources, please contact Sara-Ladd Manley at samanley@pa.gov.

Archaeological Resources

No Archaeological Concerns - Environmental Review DNo Adverse Effect DArchaeology

Based on the information received and available within our files, in our opinion, the proposed project will have No Adverse Effect on the following archaeological historic properties: 36YO0337. As noted in this consultation letter, one NRHP-eligible site, 36YO0337, is located immediately adjacent to a portion of the APE; however, Phase I and Phase II archaeological testing in 1998 re-defined the site boundary to exclude the previously disturbed area (existing substation) that is within the current APE. Should the scope of the project change and/or should you be made aware of historic property concerns, you will need to reinitiate consultation with our office using PA-SHARE.

ER Project # 2025PR01990.001 Page 2 of 2

For questions concerning archaeological resources, please contact Justin McKeel at jusmckeel@pa.gov.

Sincerely,

B. Gredouck

Barbara Frederick Environmental Review Division Manager

A.4 Letters to Tribes



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

John R. Johnson Governor Absentee-Shawnee Tribe of Indians of Oklahoma 2025 S. Gordon Cooper Drive Shawnee, OK 74801

FEB 1 9 2025

Dear Mr. Johnson,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Absentee-Shawnee Tribe of Indians of Oklahoma regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



Clint Halftown Federal Representative Cayuga Nation P.O. Box 803 Seneca Falls, NY 13148

FEB 1 9 2025

Dear Mr. Halftown,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Cayuga Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reserved. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



FEB 1 9 2025

Deborah Dotson Tribal President Delaware Nation P.O. Box 825 Anadarko, OK 73005

Dear Ms. Dotson,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Delaware Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:

Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Carissa Speck Historic Preservation Director Delaware Nation P.O. Box 825 Anadarko, OK 73005 FEB 1 9 2025

Dear Ms. Speck,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Delaware Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

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Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Charles Diebold Chief Seneca-Cayuga Nation P.O. Box 453220 Grove, OK 74344

FEB 1 9 2025

Dear Mr. Diebold,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Seneca-Cayuga Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:

Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Rickey L. Armstrong, Sr. President Seneca Nation of Indians 90 Ohi: yo Way Salamanca, NY 14779

FEB 1 9 2025

Dear Mr Armstrong,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Seneca Nation of Indians regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and resected. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



Ben Barnes Chief Shawnee Tribe P.O. Box 189 Miami, OK 74355

FEB ; 9 2325

Dear Mr. Barnes,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Shawnee Tribe regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



Beverly Kiohawiton Cook Chief Saint Regis Mohawk Tribe 71 Margaret Terrance Memorial Way Akwesasne, NY 13655

FEB 1 9 2023

Dear Ms. Cook,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Saint Regis Mohawk Tribe regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

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Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Glenna J. Wallace Chief Eastern Shawnee Tribe of Oklahoma P.O. Box 350 Seneca, MO 64865

FEB : 9 2025

Dear Ms. Wallace,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Eastern Shawnee Tribe of Oklahoma regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

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DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

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cc:



FEB 1 9 2025

Sidney Hill Chief Onondaga Nation 4040 Route 11 Nedrow, NY 13120

Dear Mr. Hill,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Onondaga Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



FEB 1 9 2025

Geoffrey Standing Bear Principal Chief Osage Nation P.O. Box 779 Pawhuska, OK 74056

Dear Mr. Bear,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Osage Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



FEB 1 9 2005

Roger Hill Chief Tonawanda Band of Seneca P.O. Box 795 Basom, NY 14013

Dear Mr. Hill,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Tonawanda Band of Seneca regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



Tom Jonathan Chief Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 FEB 1 9 2025

Dear Mr. Jonathan,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Tuscarora Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:


DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

FED : 9 2025

Devon Frazier Tribal Historic Preservation Officer Absentee-Shawnee Tribe of Indians of Oklahoma 2025 S. Gordon Cooper Drive Shawnee, OK 74801

Dear Ms. Frazier,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Absentee-Shawnee Tribe of Indians of Oklahoma regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Katelyn Lucas Tribal Historic Preservation Officer Delaware Nation P.O. Box 825 Anadarko, OK 73005

FE3 : 9 2025

Dear Ms Lucas,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Delaware Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

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b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

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DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation P.O. Box 453220 Grove, OK 74344

FEB 1 9 2025

Dear Mr. Tarrant,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Seneca-Cayuga Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

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We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Dr. Joe Stahlman Tribal Historic Preservation Officer Director Seneca Nation of Indians 82 W. Hetzel Street Salamanca, NY 14779

FEB 1 9 2025

Dear Dr. Stahlman,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Seneca Nation of Indians regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

a. The existing substation footprint.

b. The proposed substation project area (approximately 77,620 square feet).

c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Tonya Tipton Tribal Historic Preservation Officer Shawnee Tribe P.O. Box 189 Miami, OK 74355

FEB 1 9 2025

Dear Ms. Tipton,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Shawnee Tribe regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

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b. The proposed substation project area (approximately 77,620 square feet).

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We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

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DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 71 Margaret Terrance Memorial Way Akwesasne, NY 13655

FCB 1 9 2003

Dear Mr. Bonaparte,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Saint Regis Mohawk Tribe regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

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We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Paul Barton Tribal Historic Preservation Officer Eastern Shawnee Tribe of Oklahoma 70500 E 128 Road Wyandotte, OK 74370

FEB : 0 2003

Dear Mr. Barton,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Eastern Shawnee Tribe of Oklahoma regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

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In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

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We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:



DEFENSE LOGISTICS AGENCY DISTRIBUTION 2001 MISSION DRIVE, SUITE 1 NEW CUMBERLAND, PENNSYLVANIA 17070-5000

Dr. Andrea Hunter Tribal Historic Preservation Officer Osage Nation 627 Grandview Avenue Pawhuska, OK 74056

FED : 9 2005

Dear Dr. Hunter,

The Defense Logistics Agency Installation Management at Susquehanna Environmental Management (DM-FSE) is preparing an Environmental Assessment under the National Environmental Policy Act (NEPA) and requests government-to-government consultation with the Pennsylvania Historical and Museum Commission (PHMC) under Section 106 of the National Historic Preservation Act (NHPA) for the proposed construction and operation of a microgrid facility at Defense Distribution Center Susquehanna in New Cumberland, Pennsylvania. Pursuant to 36 Code of Federal Regulations Part 800.3, this letter initiates Section 106 consultation and invites input from the Osage Nation regarding impact to properties of traditional religious or cultural significance.

The proposed microgrid facility consists of three parts:

a. Relocating the existing substation to a new location

b. Installing a backup power generation facility with diesel or bi-fuel generators at the new substation location.

c. Installing a photovoltaic (PV) solar array on a closed sanitary landfill (SWMU No. 4) within the southern portion of the installation.

In the existing substation area, all equipment, concrete pads, and fencing would be removed, and the area would be covered with topsoil and reseeded. The Area of Potential Effects (APE) for the proposed action incorporates:

- a. The existing substation footprint.
- b. The proposed substation project area (approximately 77,620 square feet).
- c. The proposed PV solar array project area (approximately 25 acres on SWMU No. 4).

DM-FSE has completed cultural resource inventories at the installation in accordance with Section 110 of the NHPA and has identified one historic property, site 36YO0337, which intersects the APE at the existing substation area north of Mifflin Avenue. The area has been previously disturbed, and a preservation plan states that the grading of the natural slope during the original construction of the existing substation destroyed intact soil deposits. The prior ground disturbance in the existing substation area, coupled with the limited potential for ground disturbance under the proposed undertaking, create conditions that pose no potential to adversely affect intact archaeological deposits in that area. DM-FSE has determined that the proposed undertaking will have no adverse effects on historic properties.

We request your review of the enclosed materials and comment on the NHPA Section 106 determination and NEPA analysis for the proposed undertaking. Your comments are requested within 30 days of receipt of this letter so that we can address concerns in the EA and the Section 106 process.

Point of contact for this action is Ms. Heather Hoban, 717-908-6101, or email: heather.hoban@dla.mil. Comments may also be mailed to Ms. Hoban at 5750 3rd Street, Building 750, New Cumberland, PA 17070-5076.

Sincerely,

bert A. N Site Director

DLA Installation Management

Enclosures:

Figure 1 Defense Distribution Center Susquehanna Microgrid Facility Undertaking Overview Figure 2. Defense Distribution Center Susquehanna Microgrid Facility Undertaking Project Area (Area of Potential Effects) and Previously Recorded Cultural Resources

cc:

A.5 U.S. Fish and Wildlife Service Correspondence

Pennsylvania Department of Conservation and Natural Resources Project Search ID: PNDI-795790 PNDI Receipt: project_receipt_construction_operation_mi_795790_FINAL_1.pdf

1. PROJECT INFORMATION

Project Name: Construction and Operation of a Microgrid Facility EA Date of Review: 12/15/2023 05:09:55 PM Project Category: Energy Storage, Production, and Transfer, Energy Production (generation), Other Project Area: 44.97 acres County(s): York Township/Municipality(s): FAIRVIEW TOWNSHIP ZIP Code: Quadrangle Name(s): STEELTON Watersheds HUC 8: Lower Susquehanna-Swatara Watersheds HUC 12: Laurel Run-Susquehanna River Decimal Degrees: 40.201489, -76.834016 Degrees Minutes Seconds: 40° 12' 5.3593" N, 76° 50' 2.4568" W

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	Conservation Measure	No Further Review Required, See Agency Comments
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	Potential Impact	MORE INFORMATION REQUIRED, See Agency Response

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.



Construction and Operation of a Microgrid Facility EA

Sources Esii Antus DS USGS NGA NASA COIAR N Robinson INCEAS NLS OS NMA Geodalastyrelson Rukswar-intant GSA Gooland FEMA Informap and the GIS user commentity





Sources Esri Arbus DS, USGS NDA NASA COIAR N Robinson INCEAS INLS OS NMA. GeodeListyrotion, Rehawatersheat GSA Gooland FEMA, biteimisp and the GIS user community.

Project Search ID: PNDI-795790

RESPONSE TO QUESTION(S) ASKED

Q1: The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).

Your answer is: The project will affect 1 to 39 acres of forests, woodlots and trees.

Q2: Is tree removal, tree cutting or forest clearing necessary to implement all aspects of this project? Your answer is: Yes

Q3: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?

Your answer is: No

Q4: How many acres of woodland, forest, forested fencerows and trees will be cut, cleared, removed, disturbed or flooded (inundated) as a result of carrying out all aspects or phases of this project? [Round acreages UP to the nearest acre (e.g., 0.2 acres = 1 acre).] Your answer is: 11 to 25 acres

Q5: How many acres of woodland, forest, forested fencerows and trees will be cut, cleared, removed, disturbed or flooded (inundated) as a result of carrying out all aspects or phases of this project? [Round acreages UP to the nearest acre (e.g., 0.2 acres = 1 acre).] Your answer is: 11 to 25 acres

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission RESPONSE:

Conservation Measure: Potential impacts to state and federally listed species which are under the jurisdiction of both the Pennsylvania Game Commission (PGC) and the U.S. Fish and Wildlife Service may occur as a result of this project. As a result, the PGC defers comments on potential impacts to federally listed species to the U.S. Fish and Wildlife Service. No further coordination with the Pennsylvania Game Commission is required at this time.

PGC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status	
Sensitive Species**		Endangered	

PA Department of Conservation and Natural Resources **RESPONSE:**

No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission **RESPONSE:**

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service **RESPONSE:**

Information Request: The proposed project is in the vicinity of a northern long-eared bat maternity roost(s), capture, or detection. Enter project information, including the Pennsylvania Natural Diversity Inventory receipt number, into the U.S. Fish and Wildlife Service's Information for Planning and Consultation tool (IPaC) (https://ecos.fws.gov/ipac/). Follow the Northern Long-eared Bat Rangewide Determination Key step-by-step process to review this projects's potential effect on northern long-eared bats.

Avoidance Measure: The proposed project is located in the vicinity of northern long-eared bat spring staging/fall swarming habitat. To ensure take is not reasonably certain to occur, do not conduct tree removal from May 15 to August 15. The U.S. Fish and Wildlife Service determined take is not reasonably certain to occur from tree removal if activities are avoided during the pup season (i.e., the range of time when females are close to giving birth (i.e., two weeks prior to birth) and have non-volant (i.e., unable to fiy) young). For more information, see the Interim Voluntary Guidance for the Northern Long-Eared Bat: Forest Habitat Modification, available here: https://www.fws.gov/library/collections/interim-habitat-modification-guidance

As the project proponent or applicant, I certify that I will implement the above Avoidance Measure:

SPECIAL NOTE: If you agree to implement the above Avoidance Measure and if applicable, any Information Requests, no further coordination with this agency regarding threatened and endangered species and/or special concern species and resources is required. If you are not able to comply with the Avoidance Measures, you are required to coordinate with this agency - please send project information to this agency for review (see "What to Send" section).

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found <u>here</u>. This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).

*If information was requested by USFWS, applicants must email, or mail, project information to <u>IR1_ESPenn@fws.gov</u> to initiate a review. USFWS will not accept uploaded project materials.

Check-list of Minimum Materials to be submitted:

___Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

____A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

SIGNED copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

____Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

____Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

Project Search ID: PNDI-795790

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources Bureau of Forestry, Ecological Services Section 400 Market Street, PO Box 8552 Harrisburg, PA 17105-8552 Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission Division of Environmental Services 595 E. Rolling Ridge Dr., Bellefonte, PA 16823 Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service Pennsylvania Field Office Endangered Species Section 110 Radnor Rd; Suite 101 State College, PA 16801 Email: IR1_ESPenn@fws.gov NO Faxes Please

PA Game Commission Bureau of Wildlife Management Division of Environmental Review 2001 Elmerton Avenue, Harrisburg, PA 17110-9797 Email: RA-PGC_PNDI@pa.cov NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: DLA Instellation Management at Suspuchanna
Company/Business Name: Environmental Maragement Didision
Address: Bldg 750, 3.d Street
City, State, Zip: Nes Comberland, PA, 17157
Phone:(117) 770-4949 Fax:()
Email: Teffrey, Redline (2) ble, m.]

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration. project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

01/12/2024 date

applicant/project proponent signature FILY D. Rolling

From: Shellenberger, Pamela <pamela_shellenberger@fws.gov> Sent: Monday, November 13, 2023 1:07 PM To: Veley, Matthew P (Matt) CIV DLA INSTALLATION MGMT (USA) <Matthew.Veley@dla.mil> Subject: [Non-DoD Source] Re: [EXTERNAL] Inquiry for DLA Defense Distribution Center, Susquehanna - NLEB and Bog Turtle

This is correct. Please submit project information to that email address. However, before you do, it would be helpful to know that you can commit to not removing trees between May 15-Aug 15. Otherwise, we will just ask you if you can commit to this when we review the project. If you cannot commit to this, please provide an explanation as to why and further information on the extent of tree removal (in acres), as well as a habitat assessment that determines the quality of trees.

If you are unsure, you can wait to submit this to us until you know more specifically your plans.

Thanks,

Pamela Shellenberger (she/her) U.S. Fish and Wildlife Service Pennsylvania Field Office 110 Radnor Road, Suite 101 State College, PA 16801 814-234-4090 x7459 https://www.fws.gov/office/pennsylvania-ecological-services

The 50th anniversary of the Endangered Species Act is on December 28, 2023. Learn more at: https://www.fws.gov/esa50



From: Veley, Matthew P (Matt) CIV DLA INSTALLATION MGMT (USA) Sent: Thursday, November 9, 2023 8:32 AM To: Shellenberger, Pamela Subject: RE: [EXTERNAL] Inquiry for DLA Defense Distribution Center, Susquehanna - NLEB and Bog Turtle

Good morning,

We had completed the PNDI, and since tree removal will occur, the response from USFWS is to implement avoidance measures from May 15 to August 15. The PNDI is attached, with the response I'm referring to on page 5 of the pdf. We are not sure when tree removal for this project would occur, so we are hoping to coordinate a review of the project to determine what is necessary for compliance. The next step is to submit project information to the IR1_ESPenn@fws.gov email, correct?

V/r,

Matt Veley Environmental Protection Specialist DLA Installation Management at Susquehanna 5750 3rd St, Bldg 750 New Cumberland, PA 17070-5076 Office: 717-770-4063 Cell: 717-461-1869

From: Shellenberger, Pamela shellenberger@fws.gov>
Sent: Tuesday, November 7, 2023 1:07 PM
To: Veley, Matthew P (Matt) CIV DLA INSTALLATION MGMT (USA) <<u>Matthew.Veley@dla.mil</u>>
Subject: [Non-DoD Source] Re: [EXTERNAL] Inquiry for DLA Defense Distribution Center, Susquehanna - NLEB and Bog
Turtle

Absolutely. Always here to help.

Thank you,

Pamela Shellenberger (she/her) U.S. Fish and Wildlife Service Pennsylvania Field Office 110 Radnor Road, Suite 101 State College, PA 16801 814-234-4090 x7459 https://www.fws.gov/office/pennsylvania-ecological-services The 50th anniversary of the Endangered Species Act is on December 28, 2023. Learn more at: https://www.fws.gov/esa50



From: Veley, Matthew P (Matt) CIV DLA INSTALLATION MGMT (USA) Sent: Tuesday, November 7, 2023 7:36 AM To: Shellenberger, Pamela Subject: RE: [EXTERNAL] Inquiry for DLA Defense Distribution Center, Susquehanna - NLEB and Bog Turtle

Good morning Ms. Shellenberger,

Thank you for the reply. We will move forward with this information. Can I reach out again if additional questions come up?

V/r,

Matt Veley Environmental Protection Specialist DLA Installation Management at Susquehanna 5750 3rd St, Bldg 750 New Cumberland, PA 17070-5076 Office: 717-770-4063 Cell: 717-461-1869 From: Shellenberger, Pamela shellenberger@fws.gov>
Sent: Thursday, November 2, 2023 4:15 PM
To: Veley, Matthew P (Matt) CIV DLA INSTALLATION MGMT (USA) <<u>Matthew.Veley@dla.mil</u>>
Subject: [Non-DoD Source] Re: [EXTERNAL] Inquiry for DLA Defense Distribution Center, Susquehanna - NLEB and Bog
Turtle

Good afternoon, Matt -

Thanks for reaching out.

The 4(d) rule for the northern long-eared bat, which stated that project impact outside of 0.25 miles were exempt was dropped when the species was listed as endangered in March 2023. https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis

The entire defense distribution center is located within 5 miles of a known northern long-eared bat hibernacula near Lisburn, PA.

The southern portion of the defense distribution center is located within 1.5 miles of several northern longeared bat roost trees.

Bog turtle polygons have been modified and the defense distribution center does not lie within any conservation planning polygons for this species.

I recommend screening your project through the PNDI tool first, and following instructions. Sometimes it will tell you to go to IPaC. <u>https://conservationexplorer.dcnr.pa.gov/</u>

In PNDI, it will likely ask you if any tree removal is proposed with your project.

Please let me know if you have questions as you go through this screening tool.

Thank you,

Pamela Shellenberger (she/her) U.S. Fish and Wildlife Service Pennsylvania Field Office 110 Radnor Road, Suite 101 State College, PA 16801 814-234-4090 x7459 https://www.fws.gov/office/pennsylvania-ecological-services

The 50th anniversary of the Endangered Species Act is on December 28, 2023. Learn more at: <u>https://www.fws.gov/esa50</u>



From: Veley, Matthew P (Matt) CIV DLA INSTALLATION MGMT (USA) <<u>Matthew.Veley@dla.mil</u>> Sent: Thursday, November 2, 2023 3:23 PM To: Shellenberger, Pamela <<u>pamela shellenberger@fws.gov</u>>

Subject: [EXTERNAL] Inquiry for DLA Defense Distribution Center, Susquehanna - NLEB and Bog Turtle

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

A.6 Pennsylvania Department of Environmental Protection Correspondence

rom:	Trowbridge. Pamela
lo:	Reider, Mark D CIV DLA INSTALLATION MGMT (USA); Hoban, Heather J CIV DLA INSTALLATION MGMT (USA)
Ce:	Kaiser, Richard; Thonus, Benjamin
Subject:	[Non-DoD Source] DLA Solar Panels on Landfill Scope of Work
Date:	Thursday, November 7, 2024 10:59:42 AM
Attachments:	image001.jpg
	Proposed Scope of Work - DLA Landfill PV.docx
	External RE DLA solar panels on Landfill.msg

Hello Mark and Heather, The DEP has reviewed the proposed scope of work for installation of a solar panel field on the pre - Act landfill at DLA (See figure in Scope of Work). Our questions below were answered during a conference call with DEP and Jeff Redline of DLA on 11/14/2022. Please see below the questions DEP had after our initial review. This captures DLA's answers from the conference call.

- Will the PV cause any unusual erosion on the cap of the landfill? Erosion and Sediment (E&S) control will be monitored after installation to ensure there is no gullying/erosion of the landfill cap.
- 2. Will the ballasted ground mounts cause any unusual erosion on the cap of the landfill? E&S will be monitored after installation.
- Who would be monitoring if erosion is happening? This should be inspected regularly and especially after any unusually high rain fall totals. DLA should maintain E&S maintenance reports on site.
- 4. We have questions regarding the anchors penetrating the landfill cap. Would they pierce any geotextiles? No, they will not impact any geotextiles, the cap is just soil, as far as we know. Anchors should be inspected regularly to ensure no E&S issues for the cap.

The DEP hereby approves the scope of work for installation of Photovoltaic Solar Panels on the former closed landfill at DLA. Please let us know if there is anything else you need. Please keep us informed of the status of the project. Thanks.

Pamela S. Trowbridge, P.G. | Professional Geologist Manager Department of Environmental Protection | Environmental Clean-Up & Brownfields Southcentral Regional Office 909 Elmerton Ave | Harrisburg, PA 17110 Phone: 717.705.4839 | Fax: 717.705.4830 ptrowbridg@pa.gov www.dep.pa.gov

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A.7 Notice of Availability

[[Preparer's Note: Placeholder – This appendix will include the Draft EA Notice of Availability.]]

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A.8 Draft EA Public Comments

[[Preparer's Note: Placeholder – This appendix will include public comments received on the Draft EA.]]

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B

Air Quality Supporting Documentation and Record of Non-Applicability (RONA)

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Appendix B: Air Quality Supporting Documentation and Record of Non-Applicability (RONA)

B.1 Air Conformity Applicability Model Report

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location: Base: NO BASE State: Pennsylvania County(s): York Regulatory Area(s): Harrisburg-Lebanon-Carlisle-York, PA

b. Action Title: Construction and Operation of a Microgrid Facility

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2026

e. Action Description:

The Proposed Action is to construct and operate a microgrid facility and Defense Distribution Center Susquehanna that would consist of three parts: relocating the existing substation, collocating a backup power generation facility with the new substation, and installing a photovoltaic (PV) solar array. The analysis assumes Proposed Action construction would occur over a 1-year period from January 2026 through December 2026. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction may be different than what was assumed for the analysis.

The site grading activity was used to represent tree clearing required for installation of the PV solar array. Tree clearing and stump removal would not reach the depths of landfilled materials or contaminated soil or groundwater within SWMU No. 4. Coordination with PADEP would occur prior to construction.

f. Point of Contact:

Carolyn Hein
Contractor
HDR

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: ______ applicable

__X__ not applicable

Conformity Analysis Summary:

2026			
Pollutant	Action Emissions	GENERAL CONFORMITY	
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)
Harrisburg-Lebanon-Carlisl	e-York, PA		
VOC	0.822	100	No
NOx	4.764	100	No
СО	6.183		
SOx	0.016	100	No
PM 10	12.249		
PM 2.5	0.166	100	No
Pb	0.000		
NH3	0.007	100	No
CO2e	1662.4		

2027

Pollutant	Action Emissions	GENERAL CONFORMITY	
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)
Harrisburg-Lebanon-Carlisl	e-York, PA		
VOC	1.762	100	No
NOx	23.117	100	No
СО	10.086		
SOx	0.014	100	No
PM 10	0.409		
PM 2.5	0.409	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	2061.6		

2028 - (Steady State)

Pollutant	Action Emissions	GENERAL CONFORMITY	
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)
Harrisburg-Lebanon-Carlis	le-York, PA		
VOC	1.762	100	No
NOx	23.117	100	No
СО	10.086		
SOx	0.014	100	No
PM 10	0.409		
PM 2.5	0.409	100	No
Pb	0.000		
NH3	0.000	100	No
CO2e	2061.6		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

Carolyn Hein, Contractor

12/28/2023 DATE

B.2 Detail Air Conformity Applicability Model Report DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base:NO BASEState:PennsylvaniaCounty(s):YorkRegulatory Area(s):Harrisburg-Lebanon-Carlisle-York, PA

- Action Title: Construction and Operation of a Microgrid Facility
- Project Number/s (if applicable):
- Projected Action Start Date: 1 / 2026

- Action Purpose and Need:

The Purpose of the Proposed Action is to provide Defense Distribution Center Susquehanna with a microgrid composed of a central backup power generation plan and photovoltaic (PV) solar array to provide electricity generation independent of the bulk power grid, increase energy grid efficiency and resiliency, and generate renewable energy. The Proposed Action is needed because the existing electrical facilities are aging, inefficient, and do not meet the current and future mission of the installation.

- Action Description:

The Proposed Action is to construct and operate a microgrid facility and Defense Distribution Center Susquehanna that would consist of three parts: relocating the existing substation, co-locating a backup power generation facility with the new substation, and installing a PV solar array. The analysis assumes Proposed Action construction would occur over a 1-year period from January 2026 through December 2026. A 1-year construction period was used to equate a worse-case emissions scenario in which all construction occurs in the same year. The actual construction period and timeline for construction may be different than what was assumed for the analysis.

The site grading activity was used to represent tree clearing required for installation of the PV solar array. Tree clearing and stump removal would not reach the depths of landfilled materials or contaminated soil or groundwater within SWMU No. 4. Coordination with PADEP would occur prior to construction.

- Point of Contact

Name:	Carolyn Hein
Title:	Contractor
Organization:	HDR
Email:	
Phone Number:	

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Construct New Substation
3.	Construction / Demolition	Demolish Existing Substation
4.	Construction / Demolition	Extend Feeder Line
5.	Construction / Demolition	Install PV Solar Array
6.	Emergency Generator	New Emergency Generators
7.	Emergency Generator	New Emergency Generators

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

Activity Location	
County: York	
Regulatory Area(s):	Harrisburg-Lebanon-Carlisle-York, PA

- Activity Title: Construct New Substation

- Activity Description:

Demolition includes portions of O Avenue, the central heating plant parking area, and sidewalks within the disturbance area. Demolition would be required for an estimated 4,430 square feet of pavement. Demolition would begin in January 2026 and last approximately 1 month.

Site grading/preparation would occur on the entire disturbance area, approximately 40,420 square feet. It was assumed approximately 100 cubic yards of waste aggregates from pavement demolition would be hauled off site, and approximately 1,500 cubic yards of fill and finish rock for the substation foundation and 1,000 cubic yards of concrete for underground duct banks, manholes, and footings would be hauled on site. Site grading would begin in February 2026 and last approximately 3 months.

It was assumed the entire disturbance area (40,420 square feet) would be trenched to allow for installation of duct banks, manholes, concrete foundations, and footings. Trenching also would be required for the extension of the fence (approximately 450 linear feet) and natural gas line (approximately 1,800 linear feet). A 1-foot trench width for fencing and a 5-foot trench width for the natural gas line was assumed. Therefore, the total trenched area was estimated to be 49,870 square feet. Trenching would begin in May 2026 and last approximately 2 months.

Installation of the substation would occur on the 40,420-square-foot disturbance area. Installation would begin in July 2026 and last approximately 6 months.

- Activity Start Date

Start Month:1Start Month:2026

- Activity End Date

Indefinite:	False
End Month:	12
End Month:	2026

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.244183
SO _x	0.004718
NO _x	1.406097
СО	1.953745
PM 10	2.249064

Pollutant	Total Emissions (TONs)
PM 2.5	0.049588
Pb	0.000000
NH ₃	0.001551
CO ₂ e	467.4

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month:1Start Quarter:1Start Year:2026

- Phase Duration Number of Month: 1 Number of Days: 0
- 2.1.2 Demolition Phase Assumptions
- General Demolition Information
 Area of Building to be demolished (ft²): 4,430
 Height of Building to be demolished (ft): 1
- Default Settings Used: Yes
- Average Day(s) worked per week: 5 (default)
- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite											
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539			
Rubber Tired Dozers Composite											
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e			
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45			
Tractors/Loaders/Ba	ackhoes Co	mposite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e			
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872			

			r			,			
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

2.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (0.00042 * BA * BH) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft³)
BA: Area of Building to be demolished (ft²)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft²)
BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)WT: Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of WorksNE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 $\begin{array}{l} V_{POL}: \ Vehicle \ Emissions \ (TONs) \\ VMT_{WT}: \ Worker \ Trips \ Vehicle \ Miles \ Travel \ (miles) \\ 0.002205: \ Conversion \ Factor \ grams \ to \ pounds \\ EF_{POL}: \ Emission \ Factor \ for \ Pollutant \ (grams/mile) \\ VM: \ Worker \ Trips \ On \ Road \ Vehicle \ Mixture \ (\%) \\ 2000: \ Conversion \ Factor \ pounds \ to \ tons \end{array}$

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date Start Month: 2 Start Quarter: 1 Start Year: 2026
- Phase Duration Number of Month: 3 Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information	
Area of Site to be Graded (ft ²):	40,420
Amount of Material to be Hauled On-Site (yd ³):	100
Amount of Material to be Hauled Off-Site (yd ³):	2,500

- Site Grading Default Settings	
Default Settings Used:	Yes
Average Day(s) worked per week:	5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite										
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e		
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89		
Other Construction Equipment Composite										
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e		
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60		
Rubber Tired Dozen	s Composit	te								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e		
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45		
Tractors/Loaders/Ba	Tractors/Loaders/Backhoes Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e		
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872		

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

 $\begin{array}{ll} VMT_{VE}: \mbox{ Vehicle Exhaust Vehicle Miles Travel (miles)} \\ HA_{OnSite}: \mbox{ Amount of Material to be Hauled On-Site (yd^3)} \\ HA_{OffSite}: \mbox{ Amount of Material to be Hauled Off-Site (yd^3)} \end{array}$

HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

 $\begin{array}{l} V_{POL}: \mbox{ Vehicle Emissions (TONs)} \\ VMT_{VE}: \mbox{ Vehicle Exhaust Vehicle Miles Travel (miles)} \\ 0.002205: \mbox{ Conversion Factor grams to pounds} \\ EF_{POL}: \mbox{ Emission Factor for Pollutant (grams/mile)} \\ VM: \mbox{ Vehicle Exhaust On Road Vehicle Mixture (\%)} \\ 2000: \mbox{ Conversion Factor pounds to tons} \end{array}$

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 $\begin{array}{l} V_{POL}: \ Vehicle \ Emissions \ (TONs) \\ VMT_{WT}: \ Worker \ Trips \ Vehicle \ Miles \ Travel \ (miles) \\ 0.002205: \ Conversion \ Factor \ grams \ to \ pounds \\ EF_{POL}: \ Emission \ Factor \ for \ Pollutant \ (grams/mile) \\ VM: \ Worker \ Trips \ On \ Road \ Vehicle \ Mixture \ (\%) \\ 2000: \ Conversion \ Factor \ pounds \ to \ tons \end{array}$

2.3 Trenching/Excavating Phase

2.3.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month:	5
Start Quarter:	1
Start Year:	2026

- Phase Duration Number of Month: 2 Number of Days: 0

2.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information	
Area of Site to be Trenched/Excavated (ft ²):	49,870
Amount of Material to be Hauled On-Site (yd ³):	0
Amount of Material to be Hauled Off-Site (yd ³):	0
Tronching Default Sottings	

- Trenching Default Settings		
Default Settings Used:	Yes	
Average Day(s) worked per	week:	5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Excavators Composite	2	8
Other General Industrial Equipment Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozers Composite								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SOx	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

2.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.4 Building Construction Phase

2.4.1 Building Construction Phase Timeline Assumptions

- Phase Start Date Start Month: 7 Start Quarter: 1 Start Year: 2026

- Phase Duration	
Number of Month:	6
Number of Days:	0

2.4.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category:Office or IndustrialArea of Building (ft²):40,420Height of Building (ft):5Number of Units:N/A

- Building Construction Default Settings	
Default Settings Used:	No
Average Day(s) worked per week:	5

- Construction Exhaust

Equipment Name	Number Of	Hours Per Day
	Equipment	
Aerial Lifts Composite	2	8
Air Compressors Composite	1	6
Bore/Drill Rigs Composite	1	2
Cement and Mortar Mixers Composite	2	6
Cranes Composite	1	6
Forklifts Composite	1	8
Generator Sets Composite	1	8
Welders Composite	2	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.4.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

Aerial Lifts Composite										
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e		
Emission Factors	0.0184	0.0003	0.1365	0.1645	0.0047	0.0047	0.0016	34.763		

Air Compressors Co	omposite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0348	0.0007	0.2103	0.3027	0.0087	0.0087	0.0031	63.686	
Bore/Drill Rigs Com	nposite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0428	0.0017	0.2863	0.5006	0.0041	0.0041	0.0038	164.96	
Cement and Mortan	· Mixers Co	mposite							
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0085	0.0001	0.0533	0.0413	0.0020	0.0020	0.0007	7.2673	
Cranes Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77	
Forklifts Composite	1								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449	
Generator Sets Com	nposite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0287	0.0006	0.2329	0.2666	0.0080	0.0080	0.0025	61.057	
Welders Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0214	0.0003	0.1373	0.1745	0.0051	0.0051	0.0019	25.650	

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SOx	NO _x	CO	PM 10	PM 2.5	Pb	\mathbf{NH}_3	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

2.4.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

VMT_{VE} = BA * BH * (0.42 / 1000) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs) VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 $\begin{array}{l} V_{POL}: \ Vehicle \ Emissions \ (TONs) \\ VMT_{WT}: \ Worker \ Trips \ Vehicle \ Miles \ Travel \ (miles) \\ 0.002205: \ Conversion \ Factor \ grams \ to \ pounds \\ EF_{POL}: \ Emission \ Factor \ for \ Pollutant \ (grams/mile) \\ VM: \ Worker \ Trips \ On \ Road \ Vehicle \ Mixture \ (\%) \\ 2000: \ Conversion \ Factor \ pounds \ to \ tons \end{array}$

- Vender Trips Emissions per Phase

VMT_{VT} = BA * BH * (0.38 / 1000) * HT

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location County: York Regulatory Area(s): Harrisburg-Lebanon-Carlisle-York, PA

- Activity Title: Demolish Existing Substation

- Activity Description:

It was assumed demolition of the existing substation would occur concurrently with construction of the new substation and would occur over a 3-month period.

Demolition includes removal of the existing substation (11,573.84 square feet), which would include equipment removal or relocation, concrete pad demolition, and foundation material removal. Demolition would occur in January 2026 and last approximately 1 month.

It was assumed the entire substation area (11,573.84 square feet) would be trenched to allow for removal of duct banks, manholes, concrete foundations, footings, and fencing. It was assumed approximately 500 cubic yards of waste aggregates demolition would be hauled off site. Trenching would begin in February 2026 and last approximately 1 month.

Site grading would occur on the entire substation area (11,573.84 square feet) following demolition. It was assumed approximately 250 cubic yards of topsoil would be hauled on site. Grading would begin in March 2026 and last approximately 1 month.

- Activity Start Date

Start Month:1Start Month:2026

- Activity End Date

Indefinite:	False
End Month:	3
End Month:	2026

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.051330
SO _x	0.001021
NO _x	0.274808
CO	0.405312
PM 10	0.252362

Pollutant	Total Emissions (TONs)
PM 2.5	0.009924
Pb	0.000000
NH ₃	0.000225
CO ₂ e	100.3

3.1 Demolition Phase

3.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month: 1 Start Quarter: 1 Start Year: 2026

- Phase Duration

Number of Month: 1 Number of Days: 0

3.1.2 Demolition Phase Assumptions

General Demolition Information
 Area of Building to be demolished (ft²): 11,578.84
 Height of Building to be demolished (ft): 5

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539
Rubber Tired Dozers Composite								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SOx	NO _x	CO	PM 10	PM 2.5	Pb	\mathbf{NH}_3	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

3.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (0.00042 * BA * BH) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft³)
BA: Area of Building to be demolished (ft²)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

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- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft²)
BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 $\begin{array}{l} V_{POL}: \ Vehicle \ Emissions \ (TONs) \\ VMT_{WT}: \ Worker \ Trips \ Vehicle \ Miles \ Travel \ (miles) \\ 0.002205: \ Conversion \ Factor \ grams \ to \ pounds \\ EF_{POL}: \ Emission \ Factor \ for \ Pollutant \ (grams/mile) \\ VM: \ Worker \ Trips \ On \ Road \ Vehicle \ Mixture \ (\%) \\ 2000: \ Conversion \ Factor \ pounds \ to \ tons \end{array}$

3.2 Site Grading Phase

3.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date Start Month: 3 Start Quarter: 1 Start Year: 2026

- Phase Duration	
Number of Month:	1
Number of Days:	0

3.2.2 Site Grading Phase Assumptions

General Site Grading Information	
Area of Site to be Graded (ft ²):	11,573.84
Amount of Material to be Hauled On-Site (yd ³):	250
Amount of Material to be Hauled Off-Site (yd ³):	0

- Site Grading Default Settings Default Settings Used: Yes Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite									
	VOC	SOx	NO _x	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89	
Other Construction	Equipment	t Composite	e						
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60	
Rubber Tired Dozers Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45	
Tractors/Loaders/Backhoes Composite									
	VOC	SOx	NO _x	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872	

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	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

3.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

PM10_{FD} = (20 * ACRE * WD) / 2000

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

 V_{POL} : Vehicle Emissions (TONs) VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 $\begin{array}{l} V_{POL}: \ Vehicle \ Emissions \ (TONs) \\ VMT_{WT}: \ Worker \ Trips \ Vehicle \ Miles \ Travel \ (miles) \\ 0.002205: \ Conversion \ Factor \ grams \ to \ pounds \\ EF_{POL}: \ Emission \ Factor \ for \ Pollutant \ (grams/mile) \\ VM: \ Worker \ Trips \ On \ Road \ Vehicle \ Mixture \ (\%) \\ 2000: \ Conversion \ Factor \ pounds \ to \ tons \end{array}$

3.3 Trenching/Excavating Phase

3.3.1 Trenching / Excavating Phase Timeline Assumptions

Phase Start Date	
Start Month:	2
Start Quarter:	1
Start Year:	2026

- Phase Duration Number of Month: 1 Number of Days: 0

3.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information	
Area of Site to be Trenched/Excavated (ft ²):	11,573.84
Amount of Material to be Hauled On-Site (yd ³):	0
Amount of Material to be Hauled Off-Site (yd ³):	500

- Trenching Default Settings	
Default Settings Used:	Yes
Average Day(s) worked per week:	5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipment Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³):20 (default)Average Hauling Truck Round Trip Commute (mile):20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

3.3.3 Trenching / Excavating Phase Emission Factor(s)

Graders Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction	Equipment	t Composite	e					
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO ₂ e
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
Rubber Tired Dozer	s Composit	te						
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO ₂ e
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Construction Exhaust Emission Factors (lb/hour) (default)

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

			1			,			
	VOC	SO _x	NO _x	СО	PM 10	PM 2.5	Pb	\mathbf{NH}_3	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

3.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

 $\begin{array}{ll} VMT_{VE}: \mbox{ Vehicle Exhaust Vehicle Miles Travel (miles)} \\ HA_{OnSite}: \mbox{ Amount of Material to be Hauled On-Site (yd^3)} \\ HA_{OffSite}: \mbox{ Amount of Material to be Hauled Off-Site (yd^3)} \\ HC: \mbox{ Average Hauling Truck Capacity (yd^3)} \\ (1 / HC): \mbox{ Conversion Factor cubic yards to trips (1 trip / HC yd^3)} \\ HT: \mbox{ Average Hauling Truck Round Trip Commute (mile/trip)} \end{array}$

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 V_{POL} : Vehicle Emissions (TONs) VMT_{VE}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

4. Construction / Demolition

4.1 General Information & Timeline Assumptions

 Activity Location County: York Regulatory Area(s): Harrisburg-Lebanon-Carlisle-York, PA

- Activity Title: Extend Feeder Line

- Activity Description:

It was assumed extension of the feeder line would occur concurrently with construction of the new substation and demolition of the existing substation over a 3-month period.

Underground trenching would be required for a portion of the feeder line extension and is estimated to disturb 18,100 square feet. Trenching would begin in January 2026 and last approximately 3 months.

- Activity Start Date

Start Month:1Start Month:2026

- Activity End Date

Indefinite:	False
End Month:	3
End Month:	2026

- Activity Emissions:				
Pollutant	Total Emissions (TONs)			
VOC	0.058597			
SO _x	0.001292			
NO _x	0.269895			
СО	0.495322			
PM 10	0.549574			

Pollutant	Total Emissions (TONs)
PM 2.5	0.009396
Pb	0.000000
NH ₃	0.000179
CO ₂ e	121.7

4.1 Trenching/Excavating Phase

4.1.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date	
Start Month:	1
Start Quarter:	1
Start Year:	2026

Phase Duration
 Number of Month: 3
 Number of Days: 0

4.1.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information	
Area of Site to be Trenched/Excavated (ft ²):	18,100
Amount of Material to be Hauled On-Site (yd ³):	0
Amount of Material to be Hauled Off-Site (yd ³):	0

Trenching Default Settings	
Default Settings Used:	Yes
Average Day(s) worked per week:	5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Excavators Composite	2	8
Other General Industrial Equipment Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³):20 (default)Average Hauling Truck Round Trip Commute (mile):20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

· • • • • • • •							
	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

4.1.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

			Po minobio		5	,			
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	\mathbf{NH}_3	CO ₂ e
LDGV	000.548	000.007	000.601	004.867	000.015	000.014		000.034	00371.953
LDGT	000.731	000.010	001.042	007.674	000.017	000.015		000.034	00496.765
HDGV	001.363	000.015	003.006	025.831	000.041	000.036		000.045	00770.352
LDDV	000.258	000.003	000.315	003.456	000.007	000.006		000.008	00377.704
LDDT	000.571	000.005	000.847	007.091	000.008	000.008		000.008	00588.529
HDDV	000.845	000.014	008.862	002.838	000.378	000.348		000.029	01567.249
MC	002.464	000.008	000.797	015.032	000.029	000.026		000.050	00397.527

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

4.1.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) WD: Number of Total Work Days (days) WT: Average Worker Round Trip Commute (mile)1.25: Conversion Factor Number of Construction Equipment to Number of WorksNE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 V_{POL} : Vehicle Emissions (TONs) VMT_{VE}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

5. Construction / Demolition

5.1 General Information & Timeline Assumptions

 Activity Location County: York Regulatory Area(s): Harrisburg-Lebanon-Carlisle-York, PA

- Activity Title: Install PV Solar Array

- Activity Description:

The site grading activity was used to represent tree clearing required for installation of the PV solar array. Site grading would include clearing of trees and removal of stumps on approximately 3.5 acres (152,460 square feet). Grading would occur in January 2026 and last approximately 6 months. Tree clearing and stump removal would not reach the depths of landfilled materials or contaminated soil or groundwater within SWMU No. 4. Coordination with PADEP would occur prior to construction.

Installation of the PV solar array would occur on 25 acres (1,089,000 square feet). Installation would begin in July 2026 and last approximately 6 months.

- Activity Start Date

Start Month:1Start Month:2026

- Activity End Date

Indefinite:	False
End Month:	12
End Month:	2026

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.467801
SO _x	0.009047
NO _x	2.813143
CO	3.328773
PM 10	65.097789

Pollutant	Total Emissions (TONs)
PM 2.5	0.097468
Pb	0.000000
NH ₃	0.004686
CO ₂ e	973.0

5.1 Site Grading Phase

5.1.1 Site Grading Phase Timeline Assumptions

1

- Phase Start Date Start Month: Start Quarter:1Start Year:2026

- Phase Duration Number of Month: 6 Number of Days: 0

5.1.2 Site Grading Phase Assumptions

Area of Site to be Graded (ft ²):	
	1,089,000
Amount of Material to be Hauled On-Site (yd ³):	0
Amount of Material to be Hauled Off-Site (yd ³):	0

- Site Grading Default Settings	
Default Settings Used:	No
Average Day(s) worked per week:	5

- Construction Exhaust

Equipment Name	Number Of	Hours Per Day
	Equipment	
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	1	6
Tractors/Loaders/Backhoes Composite	2	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20
Average Hauling Truck Round Trip Commute (mile):	20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

5.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

Graders Composite VOC SOx NO_x СО **PM 10** PM 2.5 CH₄ CO₂e **Emission Factors** 0.0676 0.0014 0.3314 0.5695 0.0147 0.0147 0.0061 132.89 **Other Construction Equipment Composite** VOC **SO**_x NOx СО **PM 10** PM 2.5 CH₄ CO₂e **Emission Factors** 0.0442 0.0012 0.2021 0.3473 0.0068 0.0068 0.0039 122.60 **Rubber Tired Dozers Composite** VOC **SO**_x **NO**_x CO **PM 10** PM 2.5 CH₄ CO₂e **Emission Factors** 0.1671 0.0024 1.0824 0.6620 0.0418 0.0418 0.0150 239.45 **Scrapers Composite** VOC SOx NO_x СО PM 10 PM 2.5 CH₄ CO₂e **Emission Factors** 0.1495 0.0026 0.8387 0.7186 0.0334 0.0334 0.0134 262.81

Tractors/Loaders/Backhoes Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	\mathbf{NH}_3	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

5.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

 $\begin{array}{ll} VMT_{VE}: \mbox{ Vehicle Exhaust Vehicle Miles Travel (miles)} \\ HA_{OnSite}: \mbox{ Amount of Material to be Hauled On-Site (yd^3)} \\ HA_{OffSite}: \mbox{ Amount of Material to be Hauled Off-Site (yd^3)} \\ HC: \mbox{ Average Hauling Truck Capacity (yd^3)} \\ (1 / HC): \mbox{ Conversion Factor cubic yards to trips (1 trip / HC yd^3)} \\ HT: \mbox{ Average Hauling Truck Round Trip Commute (mile/trip)} \end{array}$

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

 V_{POL} : Vehicle Emissions (TONs) VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

5.2 Building Construction Phase

5.2.1 Building Construction Phase Timeline Assumptions

- Phase Start Date Start Month: 7 Start Quarter: 1 Start Year: 2026
- Phase Duration
 Number of Month: 6
 Number of Days: 0

5.2.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category:Office or IndustrialArea of Building (ft²):1,089,000Height of Building (ft):5Number of Units:N/A

Building Construction Default Settings Default Settings Used: No Average Day(s) worked per week: 5

- Construction Exhaust

Equipment Name	Number Of	Hours Per Day
	Equipment	
Aerial Lifts Composite	2	8
Air Compressors Composite	1	6
Cranes Composite	1	6
Forklifts Composite	2	8
Generator Sets Composite	2	6
Other General Industrial Equipment Composite	2	8
Welders Composite	2	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

5.2.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

Aerial Lifts Compos	site	·							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO ₂ e	
Emission Factors	0.0184	0.0003	0.1365	0.1645	0.0047	0.0047	0.0016	34.763	
Air Compressors Composite									
	VOC	SOx	NO _x	СО	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0348	0.0007	0.2103	0.3027	0.0087	0.0087	0.0031	63.686	
Cranes Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77	
Forklifts Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449	
Generator Sets Com	posite								
	VOC	SOx	NO _x	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0287	0.0006	0.2329	0.2666	0.0080	0.0080	0.0025	61.057	
Other General Indu	strial Equij	pment Com	posite						
	VOC	SOx	NO _x	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0747	0.0016	0.3947	0.4438	0.0130	0.0130	0.0067	152.40	
Welders Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0214	0.0003	0.1373	0.1745	0.0051	0.0051	0.0019	25.650	

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	\mathbf{NH}_3	CO ₂ e
LDGV	000.190	000.002	000.102	002.919	000.005	000.004		000.024	00301.630
LDGT	000.200	000.003	000.178	003.284	000.006	000.006		000.026	00391.933
HDGV	000.809	000.006	000.844	013.312	000.026	000.023		000.051	00905.896
LDDV	000.079	000.001	000.080	003.022	000.003	000.002		000.008	00304.243
LDDT	000.082	000.001	000.119	002.066	000.003	000.003		000.009	00354.043
HDDV	000.114	000.004	002.402	001.514	000.041	000.038		000.032	01255.547
MC	002.336	000.003	000.689	012.678	000.023	000.021		000.054	00390.236

5.2.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

 V_{POL} : Vehicle Emissions (TONs) VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase

VMT_{VT} = BA * BH * (0.38 / 1000) * HT

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs) VMT_{VT}: Vender Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

6. Emergency Generator

6.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: York Regulatory Area(s): Harrisburg-Lebanon-Carlisle-York, PA

- Activity Title: New Emergency Generators

- Activity Description:

Three bi-fuel generators would be installed at the new substation. The generators are expected to provide 7 days (168 hours) of full-load runtime, which can be extended to 14 days (336 hours) with bi-fuel, natural gas fuel blending. For the purposes of this analysis, 14 days was used as the maximum generator runtime to equate the maximum amount of air emissions that may occur from generator operation. It was assumed bi-fuel operation would use 25 percent diesel and 75 percent natural gas. Because the generators would run on a mix of both diesel and natural gas, air emissions from operation of the new generators were calculated using 84 hours (25 percent of 336 hours) of diesel fuel and 252 hours (75 percent of 336 hours) of natural gas, and then added together to get the maximum air emissions that may occur.

- Activity Start Date

Start Month:	1
Start Year:	2027

- Activity End Date

Indefinite:	Yes
End Month:	N/A
End Year:	N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.360864
SO _x	0.006300
NO _x	13.053600
СО	3.467520
PM 10	0.407736

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.407736
Pb	0.000000
NH ₃	0.000000
CO ₂ e	670.3

6.2 Emergency Generator Assumptions

- Emergency Generator Type of Fuel used in Emergency Generator: Number of Emergency Generators:

Diesel 3

- Default Settings Used: No

- Emergency Generators Consumption Emergency Generator's Horsepower: Average Operating Hours Per Year (hours):

6.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SOx	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
0.000716	0.0000125	0.0259	0.00688	0.000809	0.000809			1.33

6.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year AE_{POL}= (NGEN * HP * OT * EF_{POL}) / 2000

AE_{POL}: Activity Emissions (TONs per Year) NGEN: Number of Emergency Generators HP: Emergency Generator's Horsepower (hp) OT: Average Operating Hours Per Year (hours) EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)

7. Emergency Generator

7.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add
- Activity Location County: York Regulatory Area(s): Harrisburg-Lebanon-Carlisle-York, PA
- Activity Title: New Emergency Generators

- Activity Description:

Three bi-fuel generators would be installed at the new substation. The generators are expected to provide 7 days (168 hours) of full-load runtime, which can be extended to 14 days (336 hours) with bi-fuel, natural gas fuel blending. For the purposes of this analysis, 14 days was used as the maximum generator runtime to equate the maximum amount of air emissions that may occur from generator operation. It was assumed bi-fuel operation would use 25 percent diesel and 75 percent natural gas. Because the generators would run on a mix of both diesel and natural gas, air emissions from operation of the new generators were calculated using 84 hours (25 percent of 336 hours) of diesel fuel and 252 hours (75 percent of 336 hours) of natural gas, and then added together to get the maximum air emissions that may occur.

- Activity Start Date

Start Month:	1
Start Year:	2027

- Activity End Date

Indefinite:	Yes
End Month:	N/A
End Year:	N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	1.401624
SO _x	0.007560
NO _x	10.063872
СО	6.618024

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.001512
Pb	0.000000
NH ₃	0.000000
CO ₂ e	1391.3

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7.2 Emergency Generator Assumptions

- Emergency Generator Type of Fuel used in Emergency Generator: Number of Emergency Generators:

Natural Gas - 4 Stroke Lean Burn

- Default Settings Used: No
- Emergency Generators Consumption Emergency Generator's Horsepower: Average Operating Hours Per Year (hours):

7.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
0.000927	0.000005	0.006656	0.004377	0.000001	0.000001			0.920156

7.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

 $AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$

AE_{POL}: Activity Emissions (TONs per Year) NGEN: Number of Emergency Generators HP: Emergency Generator's Horsepower (hp) OT: Average Operating Hours Per Year (hours) EF_{POL}: Emission Factor for Pollutant (lb/hp-hr) Draft EA Addressing Construction and Operation of a Microgrid Facility at Defense Distribution Center Susquehanna

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B.3 Record of Non-Applicability (RONA)

Clean Air Act - General Conformity Rule Record of Non-Applicability (RONA) Proposed Federal Action: Construction and Operation of Microgrid Facility at Defense Distribution Center Susquehanna, York County, Pennsylvania

The Clean Air Act, as amended, requires federal actions to conform to an approved State Implementation Plan (SIP) designed to achieve or maintain an attainment designation for air pollutants, as defined by the National Ambient Air Quality Standards (NAAQS). NAAQS have been established for six criteria pollutants: carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, ozone, suspended particulate matter (measured less than or equal to 10 microns in diameter [PM₁₀] and less than or equal to 2.5 microns in diameter [PM_{2.5}]), and lead. The General Conformity Rule (40 Code of Federal Regulations [CFR] § 93 and 51) applies to federal actions occurring in nonattainment or maintenance areas.

The Defense Logistics Agency (DLA) proposes to construct and operate a microgrid facility at Defense Distribution Center, Susquehanna in New Cumberland, Pennsylvania. The microgrid facility would consist of three parts: relocating the existing substation

backup power generation plant backup power generation plant diesel) generators that would be installed at the new substation location and a PV solar array.

The analysis assumes Proposed Action construction would occur over a 1-year period from January 2026 through December 2026. Air emissions would be generated from the combustion of fuel during the following activities: (1) heavy equipment and vehicle use; (2) on-road hauling of construction materials and waste; and (3) construction worker passenger vehicle commuting. Fugitive dust emissions (i.e., particulate matter) would be generated during heavy equipment traffic movements and dirt-moving activities, and as wind-blown dust. Air emissions from operational activities would be produced from three

bi-fuel generators that would be installed at the proposed substation. The air emissions associated with generator use would begin after the microgrid facility becomes operational in January 2027 and continue each year thereafter.

The U.S. Environmental Protection Agency (USEPA) has ruled that some federal actions are exempt from the requirements in the General Conformity Rule. Under 40 CFR § 93.153 of the General Conformity Rule, the exemption indicates that actions in nonattainment and maintenance areas where the total of all annual direct and indirect emissions are below *de minimis* levels are presumed to conform to the SIP. Actions in attainment areas are not subject to General Conformity.

York County is designated by USEPA as maintenance for the 2012 particulate matter PM2.5 National Ambient Air Quality Standard, and as unclassified/attainment for all other criteria pollutants. Maintenance indicates that an area was previously designated nonattainment but is now attainment.

The General Conformity Rule requirements are potentially applicable to emissions of $PM_{2.5}$ and its precursors (volatile organic compounds [VOC], nitrogen oxides $[NO_X]$, sulfur oxides $[SO_X]$, and ammonia $[NH_3]$). **Table 1** compares the estimated annual air emissions from the Proposed Action for each year to the applicable *de minimis* level threshold limits. Calculated air emissions from the Proposed Action would be well below *de minimis* level threshold limits. Accordingly, the Proposed Action at Defense Distribution Center Susquehanna is in compliance with the Pennsylvania SIP for $PM_{2.5}$ and a formal General Conformity Determination is not required.

DLA DEFENSE DISTRIBUTION CENTER SUSQUEHANNA | GENERAL CONFORMITY RONA

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TABLE	1 - Emissions	from the	Proposed	Action
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Calendar Year	VOC tpy	NO _X tpy	CO tpy	SO _x tpy	PM ₁₀ tpy	PM _{2.5} tpy	Lead tpy	NH₃ tpy	GHG tpy
2026	0.822	4.764	6.183	0.016	12.249	0.166	<0.001	0.007	1,662.4
2027 and Later	1.762	23.117	10.086	0.014	0.409	0.409	<0.001	<0.001	2,061.6
General Conformity <i>de minimis</i> level threshold	100	100	NA	100	NA	100	NA	100	NA
Exceeds Threshold?	No	No	NA	No	NA	No	NA	No	NA

Key: CO = carbon monoxide; GHGs = greenhouse gases; NA = not applicable; NH₃ = ammonia; NO_x = nitrogen oxides; PH₁₀ = particulate matter measured less than or equal to 10 microns in diameter; PH_{2.5} = particulate matter measured less than or equal to 2.5 microns in diameter; SO_x = sulfur oxides; tpy = tons per year; VOCs = volatile organic compounds

To the best of my knowledge, the information provided is correct and accurate, and I concur in the finding that the Proposed Action will conform to the Pennsylvania SIP.

	MONTEFOUR.ROB	Digitally signed by MONTEFOUR.ROBERT.A.12291	
Approved:	ERT.A.1229146218	46218 Date: 2025.02.12 05:52:59 -05'00'	

2/12/25 Date:

Robert A. Montefour Site Director, DLA Installation Management

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