FINAL

ENVIRONMENTAL ASSESSMENT

FOR

ENERGY SAVINGS PERFORMANCE AT JOINT BASE McGUIRE–DIX–LAKEHURST, NEW JERSEY



Prepared by

Department of the Air Force Joint Base McGuire-Dix-Lakehurst, New Jersey

April 2021

FINAL FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Energy Savings Performance at Joint Base McGuire-Dix-Lakehurst, New Jersey

Pursuant to provisions of the National Environmental Policy Act (NEPA), Title 42 United States Code (USC) Sections 4321 to 4347, implemented by Council on Environmental Quality (CEQ) Regulations, Title 40, Code of Federal Regulations (CFR) §1500-1508, and 32 CFR §989, Environmental Impact Analysis Process, the U.S. Air Force (Air Force) assessed the potential environmental consequences associated with implementation of Energy Conservation Measures (ECMs) at Joint Base McGuire-Dix-Lakehurst (JB MDL) in Burlington and Ocean Counties, New Jersey, through an Energy Savings Performance Contract (ESPC).

The purpose of the Proposed Action is to increase JB MDL's energy security, resiliency, and conservation. The Proposed Action is needed to comply with federal energy directives such as the Energy Policy Act of 2005; Executive Order (EO) 13834, Efficient Federal Operations; and DoD Instruction 4170.11, Installation Energy Management. It is also needed to support the goals of the 2017-2036 Air Force Energy Flight Plan, which are to improve resiliency, optimize demand, and assure supply (Air Force 2017).

The Environmental Assessment (EA), incorporated by reference into this finding, analyzes the potential environmental consequences of activities associated with implementation of ECMs and provides environmental protection measures to avoid or reduce adverse environmental impacts.

The EA considers all potential impacts of Alternative 1 and the No-Action Alternative. The EA also considers cumulative environmental impacts with other projects in the Region of Influence.

ALTERNATIVE 1 (Preferred Alternative)

The Proposed Action is to implement ECMs for electrical power and energy savings at JB MDL through an ESPC with Ameresco. The proposed ECMs would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads. At McGuire, Ameresco would install ground-mounted solar photovoltaic (PV) arrays at two locations—North Run and Back 9. The PV arrays would collectively occupy about 50 acres and generate a maximum of about 17 megawatts (MW) of electricity. The PV arrays would be connected to a microgrid control system (MCS) and an 4-MW/8-MWh lithium-ion battery energy storage system (BESS) would be integrated with the MCS to store energy generated by the PV arrays and provide power in the event of a grid outage. The BESS would work in conjunction with the on-base generation assets and the new MCS to allow the base to continue mission critical operations in the event of a regional grid failure, brownout, terrorist attack, or utility request for demand reduction. Additionally, solar PV panels would be mounted on one or two carports to generate an additional 53 kilowatts (kW) or more of energy. Ameresco would also install roof-mounted, ballasted solar PV systems on rooftops. At Dix, Ameresco would install roof-mounted, ballasted solar PV systems on rooftops. The rooftop arrays would be installed on approximately 10 to 15 buildings and generate approximately 5,000 to 8,000 kW of electricity. At Lakehurst, Ameresco would install a ground-mounted 4-MW solar PV array on about 12 acres. An MCS serving the system would operate similarly as the system at McGuire. Each solar PV array would be connected to existing electrical distribution system. The point of connection would be within or near each site. Ameresco would also install roof-mounted, ballasted solar PV systems on rooftops. Throughout JB MDL, Ameresco would also replace or upgrade most luminaries and fixtures with new light-emitting diode (LED) fixtures and lamps;

upgrade existing heating, ventilation, and air conditioning (HVAC) control systems; replace numerous transformers; install thermal glazing window film; replace failing mechanical insulation; and replace a combined total of approximately 25 chillers, boilers, air handling units (AHUs), and Air Conditioning Packaged units. Reasonable alternatives to the Proposed Action were considered. A set of selection standards were developed to determine if reasonable alternatives exist that are technically and economically feasible that would also meet the purpose and need for the Proposed Action. Multiple alternative locations for the ground-mounted solar PV arrays were considered. Only the Preferred Alternative met all the selection standards.

NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the Preferred Alternative would not occur and the identified ECMs would not be implemented at JB MDL. Because no action would be taken, JB MDL's security and resiliency would not be improved, since the installation would not be able to produce electrical energy on-base. A reduced reliance on external power sources and continued operation of mission critical assets in the event of a disruption in the regional power supply would not occur. In addition, energy consumption would not be reduced.

SUMMARY OF FINDINGS

The analyses of the affected environment and environmental consequences of implementing the Preferred Alternative presented in the EA concluded that by implementing standing environmental protection measures and operational planning, the Air Force would be in compliance with all terms and conditions and reporting requirements. The requirements of the U.S. Fish and Wildlife Service's Programmatic Biological Opinion on the Final 4(d) Rule for northern long-eared bat (NLEB) would be followed. The general conformity rules would not apply to the Proposed Action because air emissions would be below significance indicators.

The Air Force has concluded that no significant adverse effects would result to the following resources as a result of the Preferred Alternative: air quality water resources, safety and occupational health, hazardous materials / waste, infrastructure and utilities, biological resources / natural resources, cultural resources, and earth resources. No significant adverse cumulative impacts would result from activities associated with Alternative 1 (Preferred Alternative) when considered with past, present, or reasonably foreseeable future projects.

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Based on my review of the facts and analyses contained in the attached EA, conducted under the provisions of NEPA, CEQ Regulations, and 32 CFR §989, I conclude that the Preferred Alternative for the implementation of ECMs would not have a significant environmental impact, either by itself or cumulatively with other known projects. Accordingly, an Environmental Impact Statement is not required. The signing of this Finding of No Significant Impact completes the environmental impact analysis process.

COL. TIFFANY WARNKE, 87th Civil Engineering Group Commander

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

ABW	Air Base Wing
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
AFMAN	Air Force Manual
AHU	air handling unit
APE	area of potential effect
BESS	battery energy storage system
BMP	best management practice
BOMARC	Boeing Michigan Aeronautical Research Center Missile Site
CAA	Clean Air Act
CdTe	Cadmium Telluride
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO ₂	carbon dioxide
DDC	direct digital control
DoD	Department of Defense
DOPAA	Description of Proposed Action and Alternatives
EA	Environmental Assessment
ECM	energy conservation measures
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESPC	Energy Savings Performance Contract
FAA	Federal Aviation Administration
FONSI	Finding of No Significant Impact
FY	fiscal year
GHG	greenhouse gas
GIS	geographic information system
HVAC	heating, ventilation, and air conditioning
ICRMP	Integrated Cultural Resources Management Plan
IICEP	Intergovernmental/Interagency Coordination of Environmental Planning
INRMP	Integrated Natural Resources Management Plan
IPaC	Information for Planning and Con
IRP	Installation Restoration Program
JB MDL	Joint Base McGuire-Dix-Lakehurst
JCP&L	Jersey Central Power & Light
kW	kilowatt
LBP	lead-based paint
LED	light-emitting diode
Li-ion	Lithium-ion

Environmental Assessment Acronyms and Abbreviations

LTA	Lighter-Than-Air
MBTA	Migratory Bird Treaty Act
MCS	microgrid control system
MMRP	Military Munitions Response Program
MW	megawatt
MWh	megawatt hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NLEB	northern long-eared bat
NO ₂	nitrogen dioxide
NOx	nitrogen oxides
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination System
NR	National Register
NRHP	National Register of Historic Places
O ₃	ozone
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PM _{2.5}	particulate matter 2.5 micrometers or less in diameter
PM ₁₀	particulate matter 10 micrometers or less in diameter
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
SAGE	Semi-Automatic Ground Environment
SO ₂	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
tpy	tons per year
U.S.C.	United States Code
USAF	United States Air Force
USFWS	United States Fish and Wildlife Service
VOC	volatile organic compounds

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1. PURPOSE OF AND NEED FOR ACTION

1.1 INTRODUCTION

The United States Air Force (USAF) proposes to implement Energy Conservation Measures (ECMs) to reduce energy consumption at Joint Base McGuire-Dix-Lakehurst (JB MDL) in Burlington and Ocean Counties, New Jersey, through an Energy Savings Performance Contract (ESPC). The proposed ECMs would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

JB MDL is approximately 16 miles south-southeast of Trenton and approximately 40 miles north-northeast of Philadelphia (**Figure 1-1**). JB MDL was the Department of Defense's (DoD's) first joint base and is the only joint base that consolidated Air Force, Army, and Navy installations. It is home to five wings. The 87th Air Base Wing (ABW) provides installation support to more than 88 mission partners across 42,000 acres at JB MDL. Base-wide energy security and resiliency are critical elements to ensure the continuity of JB MDL's mission.

This Environmental Assessment (EA) was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 *United States Code* [U.S.C.] section 4331 et seq.), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA procedures (40 *Code of Federal Regulations* [CFR] Part 1500–1508), as updated July 16, 2020 (CEQ 2020), and the United States Air Force's *Environmental Impact Analysis Process* regulations at 32 CFR Part 989.

1.2 PURPOSE OF THE ACTION

The purpose of the Proposed Action is to increase JB MDL's energy security, resiliency, and conservation. The Proposed Action would reduce energy consumption at JB MDL, which would in turn reduce greenhouse gas (GHG) emissions at the base and regionally. It would increase JB MDL's security and resiliency by enabling the installation to produce electrical energy onbase, reducing reliance on external power sources and allowing for continued operation of mission critical assets in the event of a disruption in the regional power supply.

1.3 NEED FOR THE ACTION

The Proposed Action is needed to comply with federal energy directives such as the Energy Policy Act of 2005; Executive Order (EO) 13834, Efficient Federal Operations; and DoD Instruction 4170.11, Installation Energy Management. It is also needed to support the goals of the *2017-2036 Air Force Energy Flight Plan*, which are to improve resiliency, optimize demand, and assure supply (Air Force 2017).

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Environmental Assessment Purpose of and Need for Action

Energy Savings Performance Joint Base McGuire-Dix-Lakehurst, New Jersey



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Figure 1-1

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1.4 DECISION TO BE MADE

This EA provides the Air Force with documentation of environmental impacts associated with implementing the Proposed Actions. The decision to be made is the selection of an alternative for the JB MDL Commander to support ECMs for electrical power and energy savings at JB MDL. The decision options are:

- To continue with current operations (the No Action Alternative);
- Selecting an alternative and preparing a Finding of No Significant Impact (FONSI); or
- Preparing an Environmental Impact Statement if the alternatives would result in significant environmental impacts.

1.5 AGENCY AND INTERGOVERNMENTAL COORDINATION / CONSULTATIONS

1.5.1 Interagency and Intergovernmental Coordination and Consultations

Federal, state, and local agencies with jurisdiction that could be affected by the alternative actions were notified and consulted during the development of this EA. Appendix A contains the list of agencies consulted during this analysis and copies of correspondence. Each agency received a scoping letter and a copy of the Final Description of Proposed Action and Alternatives (DOPAA). An example of the scoping letter sent to each agency is provided in Appendix A. In addition, each agency received a hard copy of the Public Draft EA for review and comment.

1.5.2 Government to Government Consultations

The Proposed Action is a federal action that is also subject to compliance with Section 7 of the Endangered Species Act of 1973, as amended. Section 7 consultation is required when a federal action has the potential to directly or indirectly affect listed species or destroy or adversely modify critical habitat. JB MDL initiated Section 7 consultation with the U.S. Fish and Wildlife Service and received concurrence that the Proposed Action would not adversely affect bog turtle, American chaffseed, Knieskern's beaked-rush, and swamp pink (Appendix A). Verification letters dated March 10, 2021 for the Lakehurst Site, Back Nine Site, and North Run Site, were provided for the Service's Programmatic Biological Opinion on the Final 4(d) Rule for the northern long-eared bat.

EO 13175, Consultation and Coordination with Indian Tribal Governments (6 November 2000) directs federal agencies to coordinate and consult with Native American tribal governments whose interest might be directly and substantially affected by activities on federally administered lands. To comply with legal mandates, federally recognized tribes that are affiliated historically with the JB MDL geographic region were invited to consult on all proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to the tribes. The tribal coordination process is distinct from NEPA consultation or the Intergovernmental/ Interagency Coordination of Environmental Planning (IICEP) processes and requires separate notification of all relevant tribes. The timelines for tribal consultation are also distinct from those of intergovernmental consultations. The JB MDL point-of-contact for Native American tribes is the Installation Commander. The JB MDL point-of-contact for consultation with the Tribal

Historic Preservation Officer and the Advisory Council on Historic Preservation is the Cultural Resources Manager.

The Native American tribal governments that will be coordinated with regarding this action are listed in section 6.

1.6 PUBLIC AND AGENCY REVIEW OF EA

A Notice of Availability (NOA) of the Draft EA and FONSI was published in the newspapers of record (listed below) announcing the availability of the EA for review on February 28 and March 1, 2021. The NOA invited the public to review and comment on the Draft EA. The public and agency review period ended on March 29, 2021. Public and agency comments are provided in Appendix A.

The NOA was published in the following newspapers: *Asbury Park Press* and *Burlington County Times* (February 28 and March 1, 2021).

Copies of the Draft EA and FONSI were also made available for review at the following locations:

Manchester Library Branch	Pemberton Branch Library	Burlington County Library
Ocean County	Burlington County	Main Branch
21 S. Colonial Dr.	16 Broadway	5 Pioneer Boulevard
Manchester, NJ 08759	Browns Mills, NJ 08015	Westampton, NJ 08060

Interested parties also were able to review the documents by accessing them on the JB MDL website under the heading *Environmental Publications* at https://www.jbmdl.jb.mil/About-Us/About-Us/Environmental-Publications/.

2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The Proposed Action is to implement ECMs for electrical power and energy savings at JB MDL through an ESPC. The measures are described below and listed in **Table 2-1**, and site locations are shown in **Figure 2-1**. Conceptual site plans are shown in **Figures 2-2** and **2-3** and in the subsequent site figures in this EA. The project is expected to commence in late 2021 or early 2022 and be completed in 3 years.

McGuire	Site Location	Direct Current (DC)	#Photovoltaic (PV)
Two second recursted color DV creater	North Dur (chout 25 cores [col)		Wodules
I wo ground-mounted solar PV arrays	North Run (about 25 acres [ac])		20,230
Concrete foundations or ballasted	Back 9 (about 26 ac)	8.4 MW	20,000
Fixed-angle mounting racks		0.053 MW	126
Underground distribution lines	Roots (approximately 20 to 30	10-12 MVV	24,000 to 28,000
Perimeter fences and access roads		00.05.00.05 MW	04.050.4- 00.050
Running trail around Back 9 site	lotal	26.95-28.95 MW	64,356 to 68,356
Carport solar PV (one or two)			
One on an existing carport			
One constructed			
Roof-mounted solar PV panels			
Ballasted			
 Electrical output interconnected with existing 			
electrical service to building(s)			
Microgrid control system (MCS)			
 Operate in two modes: grid-connected and 		Not Applicable (NA)	NA
islanded after a loss of utility	_		
Battery energy storage system (BESS)		4 MW/ 8 MW hour	NA
Approximate footprint: 25 feet x 65 feet	Near existing substations	(MWh)	
Natural Gas Generators			
 Two new 2-MW generators 		4 MW	NA
 Investigating potential of integrating existing 			
generators			
Dix	Site Location	DC Capacity	#PV Modules
Roof-mounted solar PV panels		70–1 500 kilowatt	
Ballasted	Approximately 10 to 15 buildings	(kW)	130 to 2,300
 Electrical output interconnected with existing 		(((())))	
electrical service to building(s)	Total	5,000–8,000 kW	11,190 to 20,000
Lakehurst	Site Location	DC Capacity	#PV Modules
Ground-mounted solar PV array			
Ballasted	Approximately 12–15 ac. all open		
 Fixed-angle mounting racks 	space	4–5.5 MW	9,524 to 13,095
 Underground distribution lines 	0000		
 Perimeter fence and access road 			
Roof-mounted solar PV panels	Approximately 10 to 15 buildings	140–800 kW	260 to 1,200
Ballasted			
 Electrical output interconnected with existing 	Total	4,000–6,000 kW	10,000 to 15,000
electrical service to building(s)			
MCS		NA	NA
 Operate in two modes: grid-connected and 	Close to main substation serving		
islanded	critical loads		
BESS		2 MW/4 MWh	NA
 Approximate factorist: 25 fact x 25 fact 			

Table 2-1. JB MDL ESPC Proposed Action

Environmen	tal As	sessment		
Description	of the	Proposed	Action	and Alternatives

Backup Stand-by Generators		2 MW	NA	
 1 new 2-MW generator 				
Construction Staging Areas (for ground-mounted sol	PV arrays)			
One construction staging area for each solar PV array:				
 Two sites at McGuire 				
 One site at Lakehurst 				
JB MDL				
Heating, Ventilation, and Air Conditioning (HVAC) Pnd	matic Controls Replacement			
Boilers, Chillers, Air Handling Units (AHUs), Air Conditioning Packaged Units (approximately 25 total of these elements):				
Approximately 12 buildings total within all installation		-		
Other Proposed Action Elements				
• Transformers Replacement: Approximately 41 bui	ngs total within all installations			
 Thermal Glazing Window Film: Approximately 45 buildings total within all installations 				
 Mechanical Insulation: Approximately 89 buildings total within all installations 				
Controls: Approximately 135 buildings total within all installations				
• Lighting: Approximately 428 buildings will be surveyed; actual replacement number would be lower after evaluation				
Source: Ameresco 2020.				

Table 2-1. JB MDL ESPC Proposed Action

Separate electrical infrastructures serve the three areas of JB MDL—McGuire, Dix, and Lakehurst. The Proposed Action does not include consolidating the infrastructures into one electrical system serving JB MDL. The electrical infrastructure on Dix is privatized, with utility meters serving individual buildings or groups of buildings. Different energy resiliency and security actions, therefore, are proposed to occur at the three JB MDL areas as described below.

2.1.1 Solar Energy Systems

McGuire. At McGuire, Ameresco would install ground-mounted solar photovoltaic (PV) arrays at two locations—North Run and Back 9 (**Figure 2-1**). The PV arrays would collectively occupy about 50 acres and generate a maximum of about 17 megawatts (MW) of electricity. The PV arrays would be fenced. Ameresco would install access roads within the fence lines and might install running trails around the outer perimeter of the fence lines. Depending on site conditions, the PV arrays would be mounted on concrete foundations (or anchors) sized appropriately for site conditions (e.g., soil type and maximum wind speed) or on poles driven into the ground. If mounted on concrete anchors (called a *ballasted* system), individual poles supporting the racks for the solar panels would each have an anchor. Because the anchors are set on top of the ground, this anchoring system causes little ground disturbance. The Back 9 site will primarily consist of concrete foundations. At the North Run site, a combination of the concrete foundation method and a ballasted system would be used to install the PV array. To avoid digging in areas on top of the landfill at the North Run site, a ballasted system would be used in areas above the landfill. The solar PV panels would be fixed-angle (i.e., they would not track the position of the sun) set at an angle to maximize energy production.

The PV arrays would be connected to a microgrid control system (MCS) that would operate in two modes: grid-connected and islanded. In grid-connected mode, the MCS would provide power to the regional grid. When a disturbance or interruption of the regional grid is detected, the MCS would switch to islanded mode, disconnect from the regional grid, and provide power only to McGuire to serve the installation's critical loads. A 4-MW/8-MWh lithium-ion battery energy storage system (BESS) would be integrated with the MCS to store energy generated by the PV arrays and provide power in the event of a grid outage. The BESS would have a footprint

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Description of	the Proposed Action and Alternatives	

of approximately 1,625 square feet (about 25 feet by 65 feet). The BESS would work in conjunction with the on-base generation assets and the new MCS to allow the base to continue mission critical operations in the event of a regional grid failure, brownout, terrorist attack, or utility request for demand reduction. The BESS has the capability of providing the full 4 MW of energy for up to 2 hours, giving time for backup generation to come online. As part of the system, two new 2-MW generators would be installed and integrated into the overall system controlled by the MCS. Existing generators on site are also being evaluated for possible integration into the MCS.

Additionally, Ameresco would mount solar PV panels on one or two carports to generate an additional 53 kilowatts (kW) or more of energy. One carport suitable for mounting solar PV panels exists at McGuire, and Ameresco might construct a second carport for solar PV panels. Ameresco would also install roof-mounted, ballasted solar PV systems on rooftops. The rooftop arrays would be installed on approximately 20 to 30 buildings and generate approximately 10,000 to 12,000 kW of electricity tied to the existing electrical distribution system.

Dix. At Dix, Ameresco would install roof-mounted, ballasted solar PV systems on rooftops. The rooftop arrays would be installed on approximately 10 to 15 buildings and generate approximately 5,000 to 8,000 kW of electricity. As mentioned earlier, Dix has a privatized electrical infrastructure where individual utility meters serve a building or groups of buildings. Electrical output of the solar PV system at each building would be interconnected with the existing electric service to the building(s) and be sized appropriately for the loads at the meter serving the building(s).

Lakehurst. At Lakehurst, Ameresco would install a ground-mounted 4-MW solar PV array on about 12 acres within the 20-acre site boundary. Details of the solar PV array at Lakehurst are similar to those for the arrays at McGuire: the array would consist of concrete foundations, panels would be fixed-angle, a perimeter fence would surround the array, and a perimeter access road would be inside the fence. An MCS serving the system would operate similarly as the system at McGuire, operating in both grid-connected and islanded modes. A 2-MW/4-MWh BESS would be integrated into the system to ensure additional energy security and resiliency. The BESS would have a footprint of approximately 525 square feet (about 21 feet by 25 feet). A 2-MW back-up stand-by generator would be integrated into the system.

Each solar PV array would be connected to existing electrical distribution system. The point of connection would be within or near each site. Existing communications conduit would be used, and new fiber would be pulled through the existing conduit.

Ameresco would also install roof-mounted, ballasted solar PV systems on rooftops. The rooftop arrays would be installed on approximately 10 to 15 buildings and generate approximately 4,000 to 5,000 kW of electricity tied to the existing electrical distribution system.

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LEGEND - Installation Boundary

North Run and Back 9 Sites

Figure 2-2



Lakehurst Site

Figure 2-3

2.1.2 Lighting

Throughout JB MDL, Ameresco would replace or upgrade most luminaries and fixtures with new light-emitting diode (LED) fixtures and lamps (**Figure 2-4**). Wireless outdoor lighting management systems serving each area would be installed to monitor and control selected outdoor lighting infrastructure. The systems would provide flexible control of outdoor lighting, improve security and safety, minimize maintenance costs, decrease energy use, and improve the



Figure 1-4. LED ceiling lighting fixture.

nighttime environment. Downward facing lights with opaque shields would be used for all outdoor lighting upgrades. Ameresco would survey approximately 428 buildings on the base, though the actual buildings requiring lighting replacement and upgrade would be less than the number of buildings surveyed.

2.1.3 Control Systems

Ameresco would upgrade existing heating, ventilation, and air conditioning (HVAC) control systems with direct digital controls (DDC). Buildings on JB MDL have various types of HVAC equipment and systems, including pneumatic controls and local DDC. Ameresco would replace pneumatic controls, upgrade conventional controls to DDC, and make other HVAC performance improvements in numerous buildings. Buildings with controllers that can be interfaced with new control systems would continue to be used but be reprogrammed to include energy savings strategies. Ameresco would improve control systems in approximately 135 buildings.

Control system improvements would include:

- Install hot water boiler control valve monitors to operate at the lowest possible supply temperature at any time to increase boiler efficiency.
- Install occupancy sensors in buildings throughout the base to control air distribution systems to reduce temperatures when rooms are unoccupied, install new controls to schedule space temperature setpoints to reduce unoccupied space heating and cooling loads, and install controls to vary outdoor air intake based on actual ventilation requirements in real time, reducing air intake during low-occupancy periods.
- Attach variable frequency drives (VFDs) to chilled water and hot water pump motors as necessary flow rates would vary as heating and cooling loads fluctuate.

2.1.4 Transformers

Ameresco would replace numerous transformers to increase efficiency, reduce noise and heat generation, and reduce the risk of unplanned failures of transformers that are nearing the end of their expected service life (**Figure 2-5**). Ameresco would replace transformers at approximately 41 buildings.



Figure 2-5. Old transformer.

2.1.5 Thermal Glazing Window Film

Ameresco would install thermal glazing window film in targeted locations to reduce radiation and thermal heat gain during the cooling-dominated summer months (**Figure 2-6**). Ameresco would install thermal glazing window film in approximately 45 buildings.

2.1.6 Boilers, Chillers, Air Handling Units, Air Conditioning Packaged Units

Ameresco would replace a combined total of approximately 25 chillers, boilers, air handling units (AHUs), and Air Conditioning Packaged units within 12 buildings on base.

Ameresco would replace older boilers that have surpassed their useful service life, targeting boilers that are inefficient and replacing them with high-efficiency condensing boilers (**Figure 2-7**).

Ameresco would also replace water chillers that have reached the end of their useful service life with high-efficiency chillers at McGuire only. The average efficiency of the existing chillers is estimated to be 0.95 kW/ton (12.6 Energy Efficiency Ratio [EER]) at full load capacity. High-efficiency aircooled chillers can operate at efficiencies as low as 0.7 kW/ton and water-cooled chillers can operate at efficiencies as low as 0.45 kW/ton.

Many AHUs throughout JB MDL are single or multizone constant volume units. The AHUs fans in these units operate at constant speed and can result

in simultaneous heating and cooling occurring. New AHU controllers would be installed to replace existing AHU fans that operate at constant speed. Ameresco will also assess and replace air conditioning packaged units.

2.1.7 Mechanical Insulation

The building envelope includes the foundation, roof, walls, insulation, doors and windows. Ameresco would replace failing mechanical insulation that is part of heating hot water, steam, domestic hot water, and chilled water system to improve system performance and reduce energy consumption within approximately 89 total buildings within all installations.

2.2 SELECTION STANDARDS

NEPA and CEQ regulations mandate the consideration of reasonable alternatives for the Proposed Action. "Reasonable alternatives" are those that are technically and economically feasible and that also could be used to meet the purpose of and need for the Proposed Action. Per the requirements of 32 CFR Part 989, selection standards are used to identify alternatives for meeting the purpose and need for the USAF action.



Figure 2-6. Window film installation.



Figure 2-7. Old boiler.

The Proposed Action alternatives must meet the following selection standards:

- Standard A, Resilience and Sustainability: The Proposed Action must increase resiliency by reducing the installation's dependency on external sources of energy and increase sustainability by reducing the installation's environmental footprint.
- Standard B, Energy Savings Cost Benefit: The Proposed Action must reduce long-• term energy expenditures enough to justify the project's cost.
- Standard C, Environmental Constraints: The Proposed Action must be located on base and avoid and minimize environmental impacts, such as to biological and cultural resources, to the extent practicable.
- Standard D, Built Constraints: The Proposed Action must be implementable within reasonable constraints of the existing built environment at JB MDL. For carport and rooftop PV arrays, the surface on which the PV panels would be mounted must meet structural load requirements per an engineer's assessment. For ground-based facilities, the location must not interfere with mission activities and must avoid major relocations of existing utilities or other infrastructure.

2.3 SCREENING OF ALTERNATIVES

The following alternative locations for ground-mounted solar PV arrays that might meet the purpose of and need for the Proposed Action were considered:

- Preferred Alternative (Proposed Action): This alternative includes the North Run and • Back 9 sites at McGuire and a site at Lakehurst that is an open space grassland area (see Figure 2-1).
- North Houghton Road site (Lakehurst): This site is the tarmac north of Houghton Road. It was eliminated because the tarmac is in the boundary for the Lighter-Than-Air (LTA) Historic District and is in the viewshed of Hangar 1, a National Historic Landmark and a contributing element of the LTA Historic District.
- Staging Area site (Lakehurst): This site is currently used by JB MDL for staging of • equipment. In addition, there are potential contamination issues in a portion of this site. Due to these issues, the site was eliminated.
- Proposed Area 1 (Lakehurst), North of Saniuk Road: This site is in a landfill area. It was eliminated due to this issue and since the size would not be large enough to provide an energy savings cost benefit.
- Proposed Area 2 (Lakehurst), North of Front Gate: This site was eliminated since the • size would not be large enough to provide an energy savings cost benefit.
- Proposed Area 3 (Lakehurst), North of Saniuk Road: This site consists of disturbed grassland areas with some pine trees colonizing the area. It was eliminated due to this issue and since the size would not be large enough to provide an energy savings cost benefit.

The roof-mounted and carport systems and other elements of the Proposed Action (lighting, transformers, window glazing, etc.) are the same regardless of the sites chosen for the ground-mounted solar PV arrays.

The selection standards described in section 2.2 were applied to these alternatives to determine which alternative(s) would fulfill the purpose and need for the action.

Table 2-2 presents the alternatives and whether each one would meet the selection standards.

	Selection Standards				
Alternative	A: Resilience and Sustainability	B: Energy Savings Cost Benefit	C: Environmental Constraints	D: Built Constraints	
Preferred Alternative (Proposed Action)	Yes	Yes	Yes	Yes	
North Houghton Road site (Lakehurst)	Yes	Yes	No	Yes	
Staging Area site (Lakehurst)	Yes	Yes	No	No	
Proposed Area 1, Lakehurst	Yes	No	No	Yes	
Proposed Area 2, Lakehurst	Yes	No	Yes	Yes	
Proposed Area 3, Lakehurst	Yes	No	Yes	Yes	
No Action Alternative	No	No	Yes	Yes	

 Table 2-2. Alternatives Screening Matrix

Only the Preferred Alternative met all the selection standards, and it is carried forward for detailed analysis in this EA. In addition, the No Action Alternative, described below, is analyzed in full in the EA.

2.4 DETAILED DESCRIPTION OF THE ALTERNATIVES

Two alternatives, Alternative 1 (Preferred Alternative) and "No-Action," are analyzed in full in the EA.

2.4.1 Alternative 1 (Preferred Alternative)

The Preferred Alternative is the Proposed Action, as described in section 2.1. This alternative meets all selection standards.

2.4.2 No Action Alternative

Under the No Action Alternative, the identified ECMs would not be implemented at JB MDL. Because no action would be taken, this alternative would not realize the benefits needed to meet selection standards A or B; however, it would meet selection standards C and D because taking no action would not conflict with the master plan or require relocation of existing infrastructure. Although the No Action Alternative would not meet the purpose of and need for the Proposed Action, it is carried forward for detailed analysis in accordance with the requirements of the CEQ's implementing regulations for NEPA.

2.4.3 Best Management Practices

To minimize impacts on the environment, JB MDL would incorporate the following best management practices (BMPs) into implementation of the Proposed Action:

- All construction would be done in accordance with the erosion and sedimentation control measures (e.g., silt fencing, swales, and detention basins) in the project-specific Stormwater Pollution Prevention Plan (SWPPP), which would minimize erosion of soil into surface waters and wetlands. All soil erosion and sediment control plans would be certified by the Burlington and Ocean County Soil Conservation Districts and authorization to discharge stormwater under the New Jersey Department of Environmental Protection (NJDEP) general permit for construction activities would be attained.
- Only approved cleaning solutions that would not contribute to groundwater or surface water contamination would be used to clean the solar panels after installation. The cleaning products and methods of cleaning would be pre-approved by JB MDL.
- Site-specific health and safety plans would be prepared prior to commencing work. The health and safety plans would be prepared in accordance with DoD and Air Force regulations and would comply with OSHA standards.
- Ground clearing and digging operations would require prior coordination with JB MDL environmental personnel and approved dig permits prior to commencing work, and documentation indicating that any fill brought on site is clean.
- No pesticides or herbicides would be used during project construction or operation.
- Ground disturbance would not occur within 150 feet of wetlands. All 150-foot wetland buffers would be flagged in the field by a qualified biologist prior to the start of construction and periodic checks would be conducted during construction activities to ensure that the wetland buffers are maintained at all times.
- Tree cutting and trimming would be scheduled to avoid the northern long-eared bat (NLEB) active season and the nesting bird season (April 1 to September 30). If project work must be conducted between April 1 and September 30, a pre-construction survey by a qualified biologist would be required. The survey would be conducted no more than 5 days prior to scheduled work and performed within the project sites and adjacent buffer areas that contain potential suitable habitat for roosting bats and nesting birds. If nesting birds or roosting bats are found, an appropriate buffer for protection of the species would be established around the nest or roost. No project work would be allowed within the buffer until after the applicable season has ended or the species has vacated the area as determined by a qualified biologist. In addition, once the project became operational, if bird nests were found on project equipment, they would be managed in compliance with the Migratory Bird Treaty Act (MBTA).

- The JB MDL Natural Resources Manager would periodically monitor the sites prior to and during vegetation clearing for the presence of special-status species, particularly reptiles. If any are discovered, construction personnel would be required to contact the Natural Resources Manager. The Natural Resources Manager would attempt to capture and relocate the species to other suitable habitat on the base and would determine if additional consultations or measures would be required.
- A qualified biologist would monitor the Lakehurst site daily during vegetation clearing for the presence of special-status species, particularly the northern pine snake. If any are discovered, construction personnel would stop work, and the JB MDL Natural Resources Manager would be contacted for attempted capture and relocation to other suitable habitat on the base and would determine if additional consultations or measures would be required.
- JB MDL would create artificial hibernacula for northern pine snakes in similar grassland areas on Lakehurst to compensate for habitat loss resulting from the construction of the solar array. Details of this effort would be coordinated with the New Jersey Division of Fish and Wildlife.
- Downward facing lights with opaque shields would be used for all outdoor lighting upgrades to prevent light pollution and disturbance to migratory birds or bats at night.
- Native warm season grass would be planted in areas where vegetation is cleared after the PV panels are installed. The seed blend would be approved by JB MDL Natural Resources prior to use.
- If archaeological artifacts are uncovered during construction, the contractor would follow procedures in standard operating procedure 7.4 *Discovery of Archaeological Resources and NAGPRA Cultural Items* (Air Force 2019).
- If the solar PV array at the Lakehurst site is visible from the adjacent LTA Historic District, appropriate landscaping would be installed at the site to minimize visual impacts.
- At the North Run Site, soils removed from IRP site ST007 during construction would be tested for potential contamination (every 200 cubic yards removed) and disposed of properly should it be identified. If the tested soil reveals no contamination, it will be reused on site for site preparation and grading.
- The Federal Green Construction Guide for Specifiers, which is based on the U.S. Environmental Protection Agency (EPA) Region 2 Greening Recommendations, would be followed to the extent feasible.
- All on-road vehicles and non-road construction equipment operating at, or visiting, the construction site shall comply with the three minute idling limit, pursuant to New Jersey Administrative Code (N.J.A.C.) 7:27-14 and N.J.A.C. 7:27-15.
- All non-road diesel construction equipment greater than 100 horsepower used on the project for more than 10 days shall have engines that meet the EPA Tier 4 non-road emission standards, or the best available emission control technology that is technologically feasible for that application and is verified by the EPA or the California

Air Resources Board as a diesel emission control strategy for reducing emissions of particulate matter and/or nitrogen oxides (NOx).

2.5 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

As none of the other alternatives that were considered would meet the purpose and need, the following alternatives were eliminated from further consideration:

- North Houghton Road site (Lakehurst)
- Staging area site (Lakehurst)
- Proposed Area 1 (Lakehurst)
- Proposed Area 2 (Lakehurst)
- Proposed Area 3 (Lakehurst)

These alternatives are not carried forward for analysis in this EA.

3. AFFECTED ENVIRONMENT

The Region of Influence (ROI) for the Proposed Action is the proposed project sites, as shown in **Figures 2-1** through **2-3**, unless otherwise specified below for a particular resource area where a resource would have a different ROI.

3.1 SCOPE OF THE ANALYSIS

This chapter describes the current conditions of the environmental resources, either man-made or natural, that would be affected by implementing the Proposed Action or No Action Alternative.

Based on the scope of the Proposed Action, issues with minimal or no impacts were identified through a preliminary screening process. The following describes those resource areas not carried forward for a detailed analysis, along with the rationale for their elimination.

Airspace. Implementing the Proposed Action would not adversely affect airspace. The action would not alter navigable airspace, flight patterns, air traffic or air operations. The ground-mounted solar PV arrays would not be adjacent to the airfield or be high enough to interfere with airspace. Based on a preliminary analysis, there would be no significant glint or glare issues from the solar panels that would adversely affect airfield operations or pilot safety. The roof-mounted solar PV panels would not perceptibly change the height of the buildings on which they are placed, nor would the panels on top of the carports. The MCSs, BESSs, and generators would be near the existing substations. The other proposed ECMs (i.e., LED lighting, HVAC control systems, transformers, thermal glazing window film, new boilers, chillers, AHUs, air conditioning packaging units, and mechanical insulation) would be inside or adjacent to buildings. Potential effects on the safety of pilots from glare associated with the PV panels is discussed in **sections 3.4 and 4.4**. Therefore, the Proposed Action would not affect air traffic or air operations at JB MDL. The Air Force anticipates no adverse effects on airspace; therefore, this resource area is not carried forward for detailed analysis.

Environmental Justice. Implementing the Proposed Action would not adversely affect environmental justice populations. EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires that federal agencies take into consideration disproportionately high and adverse environmental effects of governmental decisions, policies, projects, and programs on minority and low-income populations.

The threshold used for identifying minority and low-income populations was developed consistent with CEQ guidance (CEQ 1997) for identifying minority and low-income populations using either the 50 percent threshold or another percentage deemed "meaningfully greater" than the percentage of minority or low-income individuals in the general population. **Table 3-1** lists minority and poverty data for the ROI, which is comprised of Burlington and Ocean counties, New Jersey, as well as for the state and the nation for comparison. The ROI percentage of minority or low-income residents does not exceed the 50 percent threshold and are not meaningfully greater than that of the state or the nation. Environmental justice communities are not present; therefore, this resource area is not carried forward for detailed analysis.

Location	Minority Population (percent)	Population below Poverty (percent)
Burlington County	33%	6%
Ocean County	16%	10%
ROI Total	23%	8%
New Jersey	45%	9%
United States	40%	11%

Table 3-1. Socioeconomic Data for JB MDL

Source: U.S. Census Bureau 2020.

Land Use. Implementing the Proposed Action would not adversely affect land use. JB MDL's designated land cover types for the North Run site are developed open space, and developed low-, medium-, and high-intensity space; for the Back 9 site, land use is classified as developed open space; and for the Lakehurst site, land use is classified as developed open space and developed low- and medium-intensity space. The proposed ground-mount solar PV arrays would not conflict with these land cover designations. The North Run site would be adjacent to off-base commercial and forested land, which would not create land-use incompatibilities. The Back 9 and Lakehurst sites do not border any off-base property. The roof-mounted solar PV systems would be on top of existing buildings and carport canopies. The MCSs, BESSs, and generators would be near the existing substations and therefore be a compatible land use. The other Proposed Action energy improvement upgrades (i.e., LED lighting, HVAC control systems, transformers, thermal glazing window film, new boilers, chillers, AHUs, air conditioning packaging units, and mechanical insulation) would be inside or adjacent to buildings and would not affect land use. The Air Force anticipates no adverse effects on land use; therefore, this resource area is not carried forward for detailed analysis.

Noise. Implementing the Proposed Action would not result in appreciable changes in the noise environment. The installation of the ground-mount and rooftop solar PV arrays, MCSs, and BESSs would require use of light and heavy equipment that would generate temporary shortterm increases in noise. Project activities would not be near any on- or off-base sensitive receptors (e.g., churches, hospitals, residences, retirement homes, schools). The closest noisesensitive receptor to the North Run site would be an on-base child development center about 0.5 mile away, with buildings, roads, trees, and open areas in between; to the Back 9 site would be an off-base residential area about 0.5 mile away, with agricultural land, forested land, and roads in between; and to the Lakehurst site would be an on-base child development center about 0.6 mile away, with buildings, open space, roads, and trees in between. Contractors would limit construction to occur primarily during normal weekday business hours. Solar PV array inverters, which convert the power produced by the solar arrays from direct current to alternating current, emit a hum, but it should not be heard above normal ambient noise of a neighborhood (Proven Energy 2019), and the arrays would not be near sensitive receptors. Overall, solar PV array construction and operating noise effects would be negligible. For the other proposed ECMs, the energy-saving transformers would be installed inside building mechanical rooms and would produce less noise than the existing transformers, improving the indoor noise environment and not affecting the outdoor noise environment. Because the Air Force anticipates negligible adverse effects on the noise environment, this resource area was not carried forward for detailed analysis.

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Socioeconomics. Implementing the Proposed Action would not adversely affect socioeconomic resources. The Proposed Action does not include assigning new, permanent personnel from outside the region to JB MDL; therefore, implementing the action would not change the population or employment of JB MDL or the surrounding region, nor would it change the demand for housing or public services such as schools, law enforcement, fire protection, healthcare, or social assistance. The Proposed Action would have a slight beneficial economic effect from the construction activity associated with the proposed solar PV arrays and the installation of other proposed ECMs. The effect would not be significant and would be negligible relative to the size of the economy of the ROI. The Air Force anticipates no adverse socioeconomic effects; therefore, this resource area is not carried forward for detailed analysis.

Transportation. The Proposed Action would not adversely affect transportation resources. The Proposed Action would have minor, short-term effects during construction activities due to the involvement of truck and privately owned vehicle traffic. However, implementing the Proposed Action would not change the Level of Service on local roads, and there would be no changes to transportation during operations. Therefore, the Air Force anticipates no adverse transportation effects, and this resource area is not carried forward for detailed analysis.

3.2 AIR QUALITY

3.2.1 Definition of Resource

The EPA established National Ambient Air Quality Standards (NAAQS) under the Clean Air Act (CAA) Amendments of 1990. These standards represent the maximum allowable atmospheric concentration of designated air pollutants that are considered protective of public health and welfare. NAAQS have been set for six criteria pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead, and particulate matter (PM₁₀ and PM_{2.5}).

Based on measured ambient air pollutant concentrations, the EPA determines whether geographic areas are in compliance with the NAAQS. Areas in compliance with the NAAQS are designated as *attainment areas*; areas not in compliance are *nonattainment areas*. Nonattainment areas that subsequently achieve compliance with the NAAQS are designated *maintenance areas* to ensure air quality continues to comply with the NAAQS. Proposed actions that would result in direct or indirect emissions in a designated nonattainment or maintenance area are subject to a conformity evaluation under the General Conformity Rule (40 CFR Part 93) and the Air Force Environmental Impact Analysis Process for air quality in 32 CFR 989.30. For project sites in nonattainment or maintenance areas, a site-specific analysis is required to determine if local thresholds for Conformity would be exceeded, requiring a Conformity Determination.

Each state has the primary responsibility for air pollution prevention and control. The CAA requires each state to develop a State Implementation Plan that provides for implementation, maintenance, and enforcement of the NAAQS in each Air Quality Control Region in the state. In addition, the CAA allows states to adopt air quality standards more stringent than the federal standards.

Atmospheric ozone occurs when NO_X , CO, and volatile organic compounds (VOCs) react in the atmosphere in the presence of sunlight (a photochemical reaction). NO_X and VOCs are called ozone precursors. Motor vehicle exhaust, industrial emissions, and chemical solvents are the major anthropogenic sources of these chemicals. Although these precursors often originate in

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urban areas, winds can carry NO_X and VOCs hundreds of miles, causing ozone formation to occur in less populated areas as well. Therefore, NO_X and VOC emissions are regulated as a means of controlling ozone production.

GHGs are components of the atmosphere (e.g., water vapor, carbon dioxide [CO₂], methane, and nitrous oxide) that trap heat relatively near the surface of the earth, contributing to the greenhouse effect and climate change. GHGs are derived from natural sources such as volcanic activity and forest fires, and from man-made sources such as the use of aerosols and the burning of fossil fuels. The primary GHGs are CO₂, methane, nitrous oxide, and fluorinated gases. In the United States, most GHG emissions are attributed to energy use. Such emissions result from combustion of fossil fuels used for electricity generation, transportation, industry, heating, and other needs.

To address potential effects of climate change, EO 13834, Efficient Federal Operations, directs the federal government to enhance the resiliency of its infrastructure and operations. While EO 13834 does not require a formal planning process for evaluating and managing climate change, federal agencies are nonetheless directly involved in addressing climate resilience and adapting to its implications across their services, programs, and assets (FedCenter 2018). For example, DoD identifies climate change as a national security concern and reduced its GHG emissions by approximately 12 percent between fiscal year 2008 (FY08) and FY15 (DOE 2016).

3.2.2 Existing Conditions

JB MDL is located in Burlington and Ocean Counties, New Jersey. New Jersey's location along the northeast corridor between the major metropolitan centers of Boston and Washington, D.C., places New Jersey at the epicenter of pollutants transported from other states. In addition, westerly winds from the Ohio River Valley and nighttime reservoirs of pollutants from southern states along the Appalachian Mountain Range have been shown to contribute to high ozone and particulate concentrations in New Jersey. Burlington and Ocean Counties are part of the Philadelphia-Wilmington-Atlantic City air quality control region which is within the Ozone Transport Region. Both counties are classified as marginal nonattainment for the 8-hr O₃ NAAQS, and Burlington is also designated a maintenance area for the 2006 PM_{2.5} NAAQS.

NJDEP considers installations that have a potential to emit greater than 25 tons per year (tpy) of VOCs, 25 tpy of NO_X, or 100 tpy of CO, PM_{10} , or SO₂ major sources of air emissions. McGuire, Dix, and Lakehurst each have a potential to emit greater than these thresholds, each is considered a major source, and each hold a Title V air operating permit. As a part of their permit requirements, they are required to submit an annual emissions statement to the NJDEP. Air quality emissions inventories for the three installations for reporting year 2019 compared against the permitting thresholds are presented in Table 3-2.

	Annual Emissions (tpy)				
Installation	NOx	VOC	CO	SOx	PM ₁₀
McGuire	10.58	9.09	6.13	0.08	1.08
Dix	25.60	8.57	20.60	3.59	4.57
Lakehurst	7.03	6.88	7.13	0.05	0.64
TOTAL	43.21	24.54	33.86	3.72	6.29

Table 2.2 Annual Air Qualif	v Emigoiono Inventorioo	for Stationan	Courses of ID MDL
Table 3-2 Alliudi All Qudili		ior Stationary	y Sources at JD MDL

Table 3-2 Annual Air Quality Emissions Inventories for Stationary Sources at JB MDL

	Annual Emissions (tpy)				
Installation	NOx	VOC	CO	SOx	PM ₁₀
New Jersey Title V Permitting Threshold	25	25	100	100	100

Source: C. Brunson personal communication November 3, 2020.

3.3 WATER RESOURCES

3.3.1 Definition of Resource

Water resources include surface waters, groundwater, stormwater, and floodplains. Surface water includes all lakes, ponds, rivers, streams, impoundments, and wetlands. Groundwater is found in underground spaces, known as aquifers, that consist of permeable and porous rock or unconsolidated substrate where water is naturally stored. Aquifers have recharge areas, and some allow for withdrawals for potable, agricultural, and industrial uses. Groundwater and surface water are both impacted by stormwater infiltration and runoff generated during rain events. Stormwater refers to runoff generated by rainfall, snow, and snowmelt. Floodplains are areas that are flooded periodically by the lateral overflow of surface water bodies.

Water resources are vulnerable to contamination and quality degradation and are protected federally by the Clean Water Act (33 U.S.C. §1251 eq seq.) and the state-administered National Pollutant Discharge Elimination System (NPDES). The ROI for water resources is the project sites, any adjacent water resources, and areas that could receive stormwater runoff from the project sites.

3.3.2 Existing Conditions

A 100-year floodplain is located directly north of the North Run site and occurs within a small portion of the site (**Figure 3-1**). A 100-year floodplain is also located directly west and south of the Back 9 site and occurs within a small portion of the site (**Figure 3-2**). No floodplains are located in the vicinity of the Lakehurst site. While floodplains are located within the North Run and Back 9 sites (**Figures 3-1** and **3-2**), no construction would occur in these areas. Air Force installations have a responsibility under EO 11998, Floodplain Management, to determine if proposed actions would occur in a floodplain, evaluate and document the potential effects, and consider alternatives to avoid these effects and incompatible development in the floodplain.

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The North Run stream and associated wetlands are located north of the North Run site and are directly adjacent to the site at the closest point. Wetlands are discussed in the section 3.7 and shown in Figures 3-3 and 3-4 below. The South Run stream is located south, east, and west of the Back 9 site and is approximately 100 feet away from the site at the closest point (Figure 3-4). Wetlands are also located north, south, east, and west of the Back 9 site and are directly adjacent to the site at the closest point. In addition, two small waterbodies are located northwest (approximately 250 feet) and southwest (approximately 150 feet) of the Back 9 site. The Manapagua Branch stream is located west of the Lakehurst site, approximately 200 feet away from the site at the closest point (Figure 3-5). Wetlands are also located west of the Lakehurst site and are directly adjacent to the site at the closest point. While some of these surface waters and wetlands are within 150 feet of the sites (Figures 3-3, 3-4, and 3-5), no construction would occur within 150 feet of these areas. Wetlands information was obtained from the JB MDL GIS. The source of the wetlands data in the JB MDL GIS is the National Wetlands Inventory dataset. Wetlands on Lakehurst were ground truthed in 1996 by Dames and Moore and in 2000 by Geo-Marine (Air Force 2020). Wetlands on McGuire were delineated in 2007 (Air Force 2020; JB MDL 2007). The 2007 delineation area included the Back 9 site but did not include the North Run site (JB MDL 2007).

Air Force installations have a responsibility under EO 11990, Protection of Wetlands, to minimize destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. Pursuant to EO 11990, the Air Force shall avoid new construction located in wetlands unless there is no practicable alternative to such construction, and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In addition, the New Jersey Freshwater Wetlands Protection Act regulates and protects wetlands in the State. The NJDEP requires a protective buffer around wetlands and regulated waters during construction that ranges from 50 to 300 feet depending on the resource value of the wetland or specific designation by the state. No designated Category One waters or upstream tributaries of these waters occur near the project sites that would require a 300-foot buffer. A conservatively protective buffer of 150 feet would be used during implementation of the Proposed Action. This is the most protective buffer that is applied to wetlands of exceptional resource value. No permits from the NJDEP would be required since all project activities would be conducted outside the 150-foot buffer. Although the conceptual site plans show minor overlap into the wetland buffer areas, the buffers will be flagged in the field by a qualified biologist and no construction will occur in wetlands or the 150-foot buffers.

The North Run and Back 9 sites are underlain by the Kirkwood Aquifer/Formation (Dynamic Earth 2020a, 2020b). Groundwater at the North Run site occurs at depths ranging between approximately 10 and 13 feet below the ground surface (Dynamic Earth 2020a). Groundwater at the Back 9 site occurs at depths ranging between approximately 5 and 11 feet below the ground surface (Dynamic Earth 2020b). The Lakehurst site is underlain by the Cohansey Aquifer/Formation (Dynamic Earth 2020c). Groundwater in the vicinity of the Lakehurst site occurs at depths ranging between approximately 5.5 feet and 6.5 feet below the ground surface (Dynamic Earth 2020c). Groundwater levels at the sites are expected to fluctuate seasonally and following significant periods of precipitation.

Stormwater runoff on the North Run site follows existing site topography toward inlet structures located along adjacent roadways (Dynamic Earth 2020a). Stormwater runoff on the Back 9 site is expected to follow the existing topography of the golf course and drain along paved and gravel paths to vegetated areas on the site (Dynamic Earth 2020b). Stormwater runoff on the

Lakehurst site is expected to follow existing site topography toward inlet structures located along adjacent roadways (Dynamic Earth 2020c).

Water resources do not occur at the rooftop and carport solar sites or at the buildings where indoor energy upgrades would occur.

3.4 SAFETY AND OCCUPATIONAL HEALTH

3.4.1 Definition of Resource

Safety and occupational health includes risks to the public and workers from conducting daily activities and exposure to unsafe or unhealthful environments. Although many routine activities involve some degree of risk, there are numerous ways to enhance safety and minimize health risks. Safety and occupational health for this analysis addresses workers' health and public safety during construction activities, installation of project equipment and subsequent operations, including potential glint/glare. The ROI for this analysis is the project sites.

3.4.2 Existing Conditions

Safety and occupational health is largely a matter of adherence to regulatory requirements imposed for the benefit of workers and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers, the public, and the environment are safeguarded by numerous DoD and Air Force regulations designed to comply with standards issued by the Occupational Safety and Health Administration (OSHA) and EPA. These standards specify the amount and type of training required for workers, the use of protective equipment and clothing, engineering controls, maximum exposure limits for workplace stressors such as noise and chemicals, construction site safety such as fencing to prevent unauthorized entry, and controls to prevent release of contaminants to the environment. All personnel working at JB MDL are required to follow applicable regulations and standards to ensure the safety of themselves, others, the environment, and property.

To eliminate or reduce risks associated with construction and operation and maintenance activities, contractors are required to prepare project specific health and safety plans that analyze the risks or hazards associated with projects and how to mitigate or control those risks. Reduction or control of risks can include wearing protective clothing and equipment, implementing engineering controls, and ensuring personnel are properly trained. The successful control of risks can be assessed by monitoring employee exposure to workplace chemicals such as asbestos or hazardous materials and ensuring personnel who could be subject to chemical exposures are enrolled in a medical surveillance program.

The Federal Aviation Administration (FAA) has established guidelines and tolerances from experience gained from solar energy systems installed on airports to mitigate the effects of glint/glare from solar arrays (FAA 2018). In accordance with 14 CFR Part 77, the FAA must be notified of the intention to construct a solar PV array near an airfield by filing FAA Form 7460-1, *Notice of Proposed Construction or Alteration*. The project component cannot make or permit any changes or alterations in the airport or any of its facilities that are not in conformity with the airport layout plan that might, in the opinion of the FAA, adversely affect the safety, utility, or efficiency of the airport. The FAA published *Technical Guidance for Evaluating Selected Solar Technologies on Airports* in 2018 as a reference for FAA technical staff who review proposed

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airport solar projects and for airport sponsors that might be considering a solar installation (FAA 2018). The FAA reviewed multiple sections of the technical guidance, particularly with respect to compatibility and glint/glare. As a result of the review, the FAA issued *Interim Policy, FAA Review of Solar Energy System Projects on Federally Obligated Airports* in 2013 (78 FR 63276, October 23, 2013).

Other safety issues, such as lead, asbestos, and Installation Restoration Program (IRP) sites, are discussed in more detail in sections 3.5 and 4.5.

3.5 HAZARDOUS MATERIALS / WASTE

3.5.1 Definition of Resource

The terms "hazardous materials" and "hazardous waste" refer to substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et seq.) and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. 6901 et seq.). Hazardous wastes that are regulated under RCRA are defined as any solid, liquid, contained gaseous, or semisolid waste or any combination of wastes that exhibits one or more of the hazardous characteristics of ignitability, corrosivity, toxicity, or reactivity or is listed as a hazardous waste under 40 CFR Part 261. In general, hazardous materials include substances that, because of their quantity; concentration; or physical, chemical, or infectious characteristics; may present substantial danger to public health or the environment when released into the environment or otherwise improperly managed.

This analysis of hazardous materials and wastes includes discussion of the management of hazardous materials, hazardous waste, and petroleum products; hazardous building materials such as asbestos-containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs); and Environmental Restoration Program sites within and adjacent to the project sites. The primary agencies responsible for regulation of hazardous materials and waste are the EPA and the NJDEP. The ROI for the hazardous materials and waste analysis is the proposed project areas and surrounding areas that could affect or be affected by activities at those sites.

3.5.2 Existing Conditions

The DoD's Enterprise Resource Planning requires installations to identify, investigate, and clean up contaminated sites on their installation. The program provides a uniform methodology to evaluate past disposal sites, control the migration of contaminants, minimize potential hazards to human health and the environment, and clean up contamination through a series of stages until it is decided that no further remedial action is warranted.

JB MDL works closely with the EPA and the NJDEP to ensure environmental issues are appropriately addressed. The Environmental Restoration Program at JB MDL contains two programs, the IRP and the Military Munitions Response Program (MMRP). The IRP includes sites managed under the Comprehensive Environmental Response, Compensation, and Liability Act. The IRP sites are categorized as either National Priorities List or non-National Priorities List sites and petroleum sites and are managed under RCRA or applicable states laws. The MMRP addresses non-operational range lands that are suspected or known to contain unexploded ordnance, discarded military munitions, or munition constituent contamination.

During normal operations, JB MDL uses hazardous materials and petroleum products such as fuels, solvents, paints, oils, lubricants, adhesives, corrosives, pesticides, deicing fluid, refrigerants, and cleaners. Older buildings at JB MDL may contain ACM and LBP. JB MDL manages ACM in accordance with AFI 32-1052, Facility Asbestos Management, and its Asbestos Management Plan. JB MDL manages LBP in accordance with its Lead-Based Paint Management Plan. The plan complies with state and federal guidelines regarding the proper management of LBP. PCBs are a group of chemical mixtures used as insulators in electrical equipment, such as transformers and fluorescent light ballasts. The Toxic Substances Control Act banned the manufacturing of PCBs in 1979 and regulates their disposal.

The base adheres to the Environmental Management System framework and its "Plan, Do, Check, Act" cycle for ensuring mission success to manage the risks associated with those materials. EO 13693, Planning for Federal Sustainability in the Next Decade, U.S. Department of Defense Instruction 4715.17, Environmental Management Systems, AFI 32-7001, Environmental Management, and international standard, ISO 14001:2004, provide guidance on how environmental programs should be established, implemented, and maintained to operate under the Environmental Management System framework. That guidance establishes the procedures to comply with applicable federal, state, and local standards for hazardous and solid waste management.

3.6 INFRASTRUCTURE AND UTILITIES

3.6.1 Definition of Resource

Infrastructure consists of utilities, buildings and other structures, and waste management. Utilities include electrical, natural gas, liquid fuel, water supply, sanitary sewage/wastewater, stormwater and communication systems. However, for the purposes of this analysis, this section discusses the stormwater and electrical infrastructure of the proposed project locations. Other utility systems (natural gas, wastewater, potable water, communications) would not be affected by the Proposed Action and therefore are not discussed.

3.6.2 Existing Conditions

Stormwater Infrastructure

McGuire. Surface runoff on the North Run site follows existing site topography toward inlet structures located along adjacent roadways (Wrightstown-Cookstown Road) (Dynamic Earth 2020a). Surface runoff on the Back 9 site also follows existing site topography present from the site's former use as a golf course. Paved and gravel paths drain to adjacent vegetated areas and wooded areas have natural drainage patterns (Dynamic Earth 2020b).

Dix. Stormwater on Dix is directed by natural drainage patterns or modified drainage facilities (EHS 2013). Stormwater in developed areas of Dix are collected by extensive stormwater drainage networks that discharge to various surface waters on the base.

Lakehurst. Surface runoff on the proposed Lakehurst site follows existing site topography toward inlet structures located along adjacent roadways (Houghton Road) (Dynamic Earth 2020c).

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Electrical Infrastructure

McGuire. Electrical infrastructure on the North Run site consists of an underground electrical line running from the remnant concrete slab on the site to the underground electrical system on the south side of Wrightstown-Cookstown Road (JB MDL GIS 2020). The closest electrical infrastructure to the Back 9 site is an underground line along Station Road south of the site, which joins additional electrical line infrastructure along North Ammo Road.

Dix. The electrical system on the Dix portion of JB MDL was privatized in 1996 and is now owned, operated, and maintained by Jersey Central Power & Light (JCP&L), A FirstEnergy Company. The privatization agreement with JCP&L requires that electricity be provided on an uninterruptable basis.

Lakehurst. JCP&L provides electricity to the Lakehurst area of JB MDL. Underground electric lines run along Houghton Road along the north edge of and pass through the proposed site (JB MDL GIS 2020).

Other Infrastructure

JB MDL lighting systems use approximately 100,000 aging and inefficient incandescent lighting fixtures, few of which are on a smart control system. Electrical transformers on the base are outdated and inefficient, as are boilers and air conditioning units on the base.

3.7 BIOLOGICAL / NATURAL RESOURCES

3.7.1 Definition of Resource

Biological resources include native, non-native, and invasive plants and animals, sensitive and protected plant and animal species, and the habitats, such as wetlands, forests, and grasslands, in which they exist. Habitat can be defined as the resources and conditions in an area that support a defined suite of organisms. The ROI for biological resources is the project sites.

JB MDL has an Integrated Natural Resources Management Plan (INRMP) that serves as a guide for managing and protecting natural resources at the base (Air Force 2020). It also informs compliance with natural resource regulations including the Endangered Species Act (ESA, 16 U.S.C. §1531 et seq.) and the MBTA (16 U.S.C. §703 et seq.).

3.7.2 Existing Conditions

JB MDL consists of a total 41,995 acres, of which approximately 33 percent is developed and barren land, 25 percent is wetlands and marsh, 18 percent is pitch pine (*Pinus rigida*), 16 percent is forest, 4 percent is harvested forest, 2 percent is floodplain forest, less than 1 percent is open water, and less than 1 percent is shrub and scrub (Air Force 2020). Much of JB MDL is forested with pine/oak or oak/pine forest communities and includes an abundant understory vegetation that provides excellent cover for wildlife (Air Force 2020). Approximately 29,162 acres (24,609 acres on Dix, 4,230 acres on Lakehurst, and 324 acres on McGuire) are wooded (Air Force 2020). There are 4,540 acres of grasslands on JB MDL (Air Force 2020). Vegetation communities at Dix and Lakehurst are diverse, ranging from grasslands to forests, whereas most of McGuire is developed and consists of maintained grasslands, lawns, and landscaped areas (Air Force 2020).
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Vegetation on the North Run site on McGuire consists of approximately 25 acres of mowed grasslands. An adjacent wooded wetland area and the North Run stream occur to the north of the site. A small portion of the North Run site also overlaps with an environmental restoration site (landfill, LF 003) and an IRP site (ST007). This issue is discussed more in section 3.5 and section 3.9. Vegetation on the Back 9 site on McGuire consists of approximately 26 acres of landscaped golf course with turf lawn and ornamental trees. An adjacent wooded wetland area occurs to the north, south, east, and west of the site, and the South Run stream occurs to the south, east, and west of the site. The Back 9 golf course was closed in late summer 2018 (Air Force 2020). Vegetation on the Lakehurst site consists of approximately 12 to15 acres of grasslands. An adjacent wooded wetland area and the Manapaqua Branch stream occur to the west of the site. Table 3-3 summarizes the habitats within and adjacent to the project sites.

Site	Acres	Habitat Onsite	Adjacent Habitats	Notes
North Run (McGuire)	25	Mowed grasslands	Wooded wetlands and North Run Stream, potential barred owl (<i>Strix varia</i>) habitat	Landfill and IRP site within project site
Back 9 (McGuire)	26	Landscaped golf course (lawn and ornamental trees)	Wooded wetlands and South Run Stream, potential barred owl habitat	Golf course closed in late summer 2018
Lakehurst	12-15	Grasslands	Wooded wetland area and Manapaqua Branch stream, potential barred owl habitat	None

Table 3-3. Habitats Within and Adjacent to the Project Sites

Many wildlife species occur on JB MDL. Some are habitat generalists that do not have very specific habitat requirements and seem to thrive despite human disturbance, such as American robins (*Turdus migratorius*) and white-tailed deer (*Odocoileus virginianus*) (Air Force 2020). Others require very specific habitats and do not fare as well with human disturbance, such as brook trout (*Salvelinus fontinalis*) and barred owls (*Strix varia*) (Air Force 2020).

JB MDL is located within the Pinelands National Reserve. The Pinelands National Reserve was created through the passage of the National Parks and Recreation Act of 1978 and encompasses approximately 1.1 million acres, or 22 percent of New Jersey's land area (Pinelands Commission 2020). Due to its location within the Pinelands National Reserve, along with its diversity of habitat and large land area, JB MDL supports many rare, threatened, and endangered plant and animal species protected at the federal level, as well as those protected by the State of New Jersey (Air Force 2020), collectively referred to as special-status species. Many special-status species surveys have been conducted on JB MDL throughout the years (Air Force 2020). Resident and migratory birds protected under the MBTA and EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, also use JB MDL, including seasonal migrants on the Atlantic Flyway migratory route (Air Force 2020).

Of the 57 special-status fauna species that may occur on JB MDL, 24 State threatened or endangered species have been documented on the installation (Air Force 2020). The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was also used to determine federally listed species that may occur in the area. Federally listed species that have been documented on JB MDL include swamp-pink (*Helonias bullata*), Knieskern's beaked-rush (*Rhynchospora knieskernii*), bog turtle (*Glyptemus muhlenbergii*), and northern

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long-eared bat (Myotis septentrionalis) (Air Force 2020). Swamp-pink and Knieskern's beakedrush both occur in wetland habitats (Air Force 2020). Swamp-pink has been previously found at Dix, but in no other locations on JB MDL. Knieskern's beaked-rush has been found at the Jump Circle on the Lakehurst portion of JB MDL (Air Force 2020), which is approximately 2 miles west of the Lakehurst site. While one bog turtle was previously documented on Lakehurst in 1988 and again in 1993, no bog turtles have been found on JB MDL since that time despite multiple surveys for the species (Air Force 2020). A recent survey in 2018 by Herpetological Associates indicated that no suitable bog turtle habitat remained on the base due to a combination of vegetative succession by wetland trees and invasive plants and changing water levels due to beavers (Air Force 2020). Chaffseed (Schwalbea americana), a federally and State listed plant species, has never been observed at JB MDL but occurs in the vicinity of JB MDL's boundary and suitable habitat for this species exists on the installation (Air Force 2020). No designated USFWS critical habitat is in or adjacent to the ROI. The bald eagle (*Haliaeetus leucocephalus*), a State listed species, has been documented nesting in trees on Lakehurst and Dix (Air Force 2020) and is also protected by the Federal Bald and Golden Eagle Protection Act. Specialstatus species that may occur on the project sites and their full listing status are shown in Table 3-4.

Given the developed and mowed habitats within the North Run and Back 9 sites, those sites provide marginal habitat for wildlife species and do not provide habitat for special-status plant species. Since the habitat is marginal, birds and other wildlife would likely only be transient visitors to those sites. While trees on the Back 9 site could be used by wildlife such as nesting birds, large areas of much higher quality forest habitat occur adjacent to the site and are more likely to be used by these species. Lakehurst has a higher potential to support wildlife and plant species given the grasslands onsite. However, many of the special-status species listed in **Table 3-4** have not been found nearby or within the project sites. If they have been found nearby or within the project sites, notes on those occurrences are provided in the table and that table entry is in bold. In addition, species that do not have the potential to occur on the sites are not included in the table because habitat that could support them does not occur, such as wetland species. For example, since the swamp-pink and Knieskern's beaked rush occur in wetland habitats, which do not occur in the project sites, these species are not included in the analysis below.

Since rooftops are the only proposed solar sites on Dix, habitat for ground-dwelling species does not occur at these sites and these species would not occur. The rooftop sites on McGuire, Lakehurst, and Dix and the carport sites on McGuire could be used by nesting birds and bats.

Based on current JB MDL GIS data, no special-status species have been documented in the vicinity of the North Run site (**Figure 3-3**). Mowed grasslands on the site are unlikely to support most special-status species. However, some special-status birds or reptiles have potential to occur on the site (**Table 3-4**). Potential forest habitat for the barred owl, a State listed threatened species, occurs adjacent to the North Run site (Air Force 2020). However, preferred habitat for this species does not occur on the site, which is defined as large, unbroken stands of mature lowland, upland deciduous, or mixed coniferous/deciduous forests. Since forest habitat is not present on the site, barred owl is unlikely to occur within the North Run site. Wetlands that occur in the vicinity of the North Run site are shown in **Figure 3-3**.

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	Table 3-4. Specia	Il-status Specie	es with the Potential to Occur on the Pro	oject Sites
Scientific Name	Common Name	Status	Habitat	Site(s)
			Plants	
Amianthium muscaetoxicum	Fly poison	State Special Concern	Dry to moist woods, meadows, and open fields.	Lakehurst Site
Andropogon gyrans var. gyrans	Elliott's beardgrass	State Special Concern	Dry sandy roadsides, embankments, fields, and pine or oak woodlands.	Lakehurst Site
Aristida dichotoma var. curtissii	Curtis' three-awn grass	State Special Concern	Sandy fields and clearings, disturbed sites, pine woods and granitic outcrops.	Lakehurst Site
Desmodium strictum	Pineland tick- trefoil	State Special Concern	Dry woodlands, sandhills, and fields.	Lakehurst Site
Gymnopogon ambiguous	Bearded skeletongrass	State Special Concern	Glades, prairies, dry pinelands and woodlands, dry fields, and barrens.	Lakehurst Site
Helianthemum bicknellii	Hoary frostweed	State Special Concern	Sandy or rocky barrens, glades, sandhills, prairies, fields, pine-oak woodlands, oak- hickory woodlands, montane outcrops and balds.	Lakehurst Site
Juncus greenei	Greene's rush	State Special Concern	Dry, sandy sites such as sandplains, sandy road shoulders, dry fields and rock outcrops.	Lakehurst Site
Myosotis verna	Spring forget-me- not	State Special Concern	Open woodlands, barren wooded slopes, sandy savannas and prairies, fields, roadside embankments, along railroads, and disturbed areas.	Lakehurst Site
Pityopsis falcata	Sickleleaf silk- grass	State Special Concern	Open fields, plains, and woodland openings on dry, sandy soils.	Lakehurst Site. This species has been previously documented in multiple grassland areas near the Lakehurst Site (Figure 3-5).
Rubus recurvicaulis var. inarmatus	Arching dewberry	State Special Concern	Disturbed areas, forest edges, grasslands, meadows and fields, woodlands.	Lakehurst Site

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	Table 3-4. Specia	al-status Specie	s with the Potential to Occur on the Pro	oject Sites
Scientific Name	Common Name	Status	Habitat	Site(s)
Schwalbea americana	Chaffseed	Federal Endangered, State Endangered	Requires frequent fire or understory removal. Grassland areas with prescribed burns or mowing. Early successional habitats such as open, moist pine flatwoods, fire-maintained savannas, ecotonal areas between peaty wetlands and dry sandy soils, bog borders, and other open grass-sedge.	Lakehurst Site
Tridens flavus var. chapmanii	Chapman's redtop	State Endangered	Open woodlands, roadsides, dry fields.	Lakehurst Site
			Birds	
Ammodramus henslowii	Henslow's Sparrow	Federal Bird of Management Concern, State Endangered	Open fallow and grassy fields, sedge meadows, and pastures. Prefer habitats of high, dense vegetation and a thick layer of ground litter.	Lakehurst Site (nesting)
Ammodramus savannarum pratensis	Grasshopper sparrow	Federal Bird of Management Concern, State Threatened (Breeding)	Natural and disturbed grasslands with short- to medium-height bunch grasses interspersed with patches of bare ground, a shallow litter layer, scattered forbs, and few shrubs.	Lakehurst Site (nesting). This species has been previously documented in grassland habitat approximately 0.5 miles east of the Lakehurst Site (Figure 3-5).
Ardea herodias	Great blue heron	State Special Concern (Breeding)	Nests in trees in upland and wetland areas near bodies of water.	Back 9 Site (nesting)
Barramia longicauda	Upland sandpiper	Federal Bird of Management Concern, State Endangered	Upland meadows and short grass grasslands provide habitat for nesting. Habitats that contain a mix of tall and short grasses and forbs provide both foraging and nesting habitat.	Lakehurst Site (nesting). Nesting pairs of this species have been observed approximately 2 miles northwest of the Lakehurst Site and on the McGuire Airfield.

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Table 3-4. S Scientific Name Common Name Scientific Name Common Name Chordeiles minor Common Nighthawk Circus cyaneus Northern hai			
Scientific Name Commo Chordeiles minor Common Chordeiles minor Nighthawk Nighthawk Nighthawk Circus cyaneus Northern hau	Special-status Specie	s with the Potential to Occur on the Prc	oject Sites
Chordeiles minor Common Nighthawk Circus cyaneus Northern ha	non Status le	Habitat	Site(s)
Circus cyaneus Northern hai	State Special Concern	Nests and forages in open coniferous forest, forest clearings, grasslands, fields, and open areas within urban areas. Can nest on rooftops. Nests on bare ground with no nesting material, usually in an open area.	North Run Site, Back 9 Site, Lakehurst Site, rooftops and carports (nesting)
	arrier Federal Bird of Management Concern, State Endangered (Breeding)	Open areas such as tidal marshes, emergent wetlands, fallow fields, grasslands, meadows, airports, and agricultural areas for nesting and foraging.	Lakehurst Site (nesting)
Dendroica discolor Prairie Warb	rbler Federal Bird of Conservation Concern	Nests in trees or shrubs in various habitats, such as regenerating forests, open fields, and Christmas-tree farms.	Back 9 Site (nesting)
Dolichonyx oryzivorus Bobolink	Federal Bird of Conservation Concern, State Threatened (Breeding)	Nests in low-intensity agricultural habitats, fallow fields and meadows of grasses, forbs, and wildflowers.	Lakehurst Site (nesting)
<i>Eremophila alpestris</i> Horned lark	k Threatened (Breeding)	Open habitats with short, sparse grasses and wildflowers, bare ground, and few shrubs.	North Run Site, Back 9 Site, Lakehurst Site (nesting)
Falco sparverius American ke	kestrel State Threatened	Open, grassy habitats – especially that have trees or structures that provide cavities for nesting and perches for hunting. Can nest under the eaves of buildings.	Back 9 Site, rooftops and carports (nesting); Lakehurst Site (foraging)

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	Table 3-4. Specia	l-status Specie	s with the Potential to Occur on the Pro	ject Sites
Scientific Name	Common Name	Status	Habitat	Site(s)
Haliaeetus Ieucocephalus	Bald eagle	Federal Bald and Golden Eagle Protection Act, State Endangered (Breeding)	Nests in trees away from human disturbance usually within close proximity to open water. Remain in the area surrounding their nest.	Back 9 Site (nesting); Lakehurst Site (foraging). A nesting bald eagle has been documented approximately 1.5 miles west of the Lakehurst Site.
Melanerpes erythrocephalus	Red-headed woodpecker	Federal Bird of Management Concern, State Threatened	Nest in trees in open upland and wetland forested areas.	Back 9 Site (nesting)
Pandion haliaetus	Osprey	State Threatened (Breeding)	Nests close to water on tall, dead trees, live trees, channel markers, old duck blinds, and telephone poles.	Back 9 Site (nesting)
Passerculus sandwichensis	Savannah sparrow	State Threatened (Breeding)	Nests in a variety of open habitats, including fields with a mix of short and tall grasses, a thick litter layer, dense ground vegetation, and scattered shrubs, saplings, or forbs.	Lakehurst Site (nesting)
Pooecetes gramineus	Vesper sparrow	State Endangered (Breeding), State Special Concern (Non- Breeding)	Nests and forages in fields, grasslands, and pastures.	Lakehurst Site (nesting)
Sturnella magna	Eastern meadowlark	Federal Bird of Management Concern, State Special Concern	Nests and forages in grasslands, prairies, lightly grazed pastures, mixed-grass hayfields, and fallow areas with dense cover of grasses.	Lakehurst Site (nesting)

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Environmental Assessme Affected Environment	int		Joint Base	Energy Savings Performance McGuire-Dix-Lakehurst, New Jersey
	Table 3-4. Speci	al-status Specie	es with the Potential to Occur on the Pro	ject Sites
Scientific Name	Common Name	Status	Habitat	Site(s)
Strix varia	Barred owl	State Threatened	Lives and breeds in large, unbroken stands of mature lowland, upland deciduous, or mixed coniferous/deciduous forests.	North Run Site, Back 9 Site, Lakehurst Site (foraging). This species has been documented approximately 1 mile east of the Back 9 Site. Potential habitat for this species occurs adjacent to the North Run, Back 9, and Lakehurst Sites.
Tyto alba	Barn owl	State Special Concern	Nests and forages in open habitats such as agricultural fields, pastures, and marshland. May nest and roost in structures.	North Run Site, Back 9 Site, Lakehurst Site (foraging), rooftops and carports (nesting)
			Mammals	
<i>Myotis</i> septentrionalis	Northern long- eared bat	Federal Threatened, State Endangered	Roosts in forest trees and rarely in structures, roosts and hibernates in caves and mines. Forages in forest understory.	Rooftops and carports (roosting). This species has been previously documented approximately 0.3 miles east of the Lakehurst Site (Figure 3-5).
			Reptiles	
<i>Pituophis</i> melanoleucus	Northern pine snake	State Threatened	Pine-oak forest on sandy soils, occur equally in disturbed and undisturbed sites. Found at road edges, railroad beds, field margins, and other open areas.	North Run Site, Back 9 Site, Lakehurst Site. This species has been previously documented within the Lakehurst project site (Figure 3-5).
Lampropelitis getula	Eastern king snake	State Special Concern	Pine forests, rocky areas, fields, swamps, farmlands, rural and suburban areas. Normally are found close to a water source.	North Run Site, Back 9 Site, Lakehurst Site

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Environmental Assessme Affected Environment	ent		Joint Base	Energy Savings Performance a McGuire-Dix-Lakehurst, New Jersey
	Table 3-4. Specia	l-status Specie	ss with the Potential to Occur on the Pro	ject Sites
Scientific Name	Common Name	Status	Habitat	Site(s)
Terrapene carolina	Eastern box turtle	State Special Concern	Open woodlands and meadows, grasslands and fields, and rural and suburban areas. Predominantly terrestrial, but usually not far from streams or ponds.	North Run Site, Back 9 Site, Lakehurst Site
			Invertebrates	
Callophrys iris	Frosted elfin	State Threatened	Dry clearings and open areas that are natural (e.g. savannas) or of human origin (e.g., power-line right of ways and roadsides) with host plant.	Lakehurst Site
Hesperia attalus slossonae	Dotted skipper	State Special Concern	Dry, sandy areas and favors areas where host grasses grow.	Lakehurst Site
Source: Air Force 2020. Note: Special-status species fo	ound nearby or within the p	roject sites are in bol	1	



Source: JB MDL GIS 2020.

Based on current JB MDL GIS data, no special-status species have been documented in the vicinity of the Back 9 site (**Figure 3-4**). Barred owl has been documented approximately 1 mile east of the Back 9 site and potential habitat for this species occurs adjacent to the site (Air Force 2020). However, preferred habitat for this species does not occur on the site. Therefore, this species is unlikely to occur on the site. Species that may exist in landscaped lawn and tree areas, such as special-status bird species and reptiles, could occur on the site (**Table 3-4**). Wetlands that occur in the vicinity of the Back 9 site are shown in **Figure 3-4**.



Special-status species and wetlands documented in the vicinity of the Lakehurst site are shown in **Figure 3-5**. Numerous hibernacula and individuals of northern pine snake (*Pituophis melanoleucus melanoleucus*), a State listed threatened species, have been documented within the Lakehurst site. One occurrence of NLEB, a federally listed threatened and State listed endangered species, has been documented approximately 0.3 mile east of the site. This NLEB was discovered roosting on the side of an engineering building in 2018 (Air Force 2020). The project site is outside the 0.25-mile buffer required by the USFWS for protection of NLEB hibernacula, as shown in **Figure 3-5**. A 0.5-mile buffer is also shown in the figure for reference. NLEB may briefly traverse through the Lakehurst site to adjacent wooded areas. However, it is unlikely to forage or occur on the site because preferred foraging habitat of forest understory is not present (USFWS 2015).

Additional special-status species that have been historically documented in the vicinity of the Lakehurst site are:

- the federally and State listed endangered bog turtle in wetland habitat approximately 0.5 mile southeast of the site,
- the State listed threatened grasshopper sparrow approximately 0.5 mile east of the site,

- the State plant species of concern pale beaksedge (*Rhynchospora pallida*) in wetland habitat approximately 0.4 mile south of the site,
- the State plant species of concern sickleleaf silk-grass (*Pityopsis falcata*) in multiple grassland areas near the site,
- nesting pairs of the state endangered and federal bird of management concern upland sandpipers approximately 2 miles northwest of the site and on the McGuire Airfield; and
- the state endangered and federally protected nesting bald eagle approximately 1.5 miles west of the site.

Of these species, the grasshopper sparrow, sickleleaf silk-grass, and upland sandpiper could occur in the dry grasslands present on the Lakehurst site.

There is no suitable bog turtle habitat on JB MDL, therefore, this species is unlikely to occur (Air Force 2020).

Bald eagles typically nest in trees. Given the lack of trees within the Lakehurst site, bald eagles are unlikely to nest in the site, but could occur as transient visitors.

Potential barred owl habitat occurs adjacent to the site. However, preferred habitat for this species does not occur on the site. Therefore, this species is unlikely to occur on the site.

The State listed threatened American kestrel could also occur within the Lakehurst site, since the site contains grassy, open areas that this species prefers. The nearest documented occurrence of American kestrel from the Lakehurst site is approximately 7.2 miles west of the site. The site does not contain trees or structures that would be likely to be used for nesting by the American kestrel.

Additional special-status species listed in Table 3-4 that utilize grassland habitats could also occur in the vicinity of the Lakehurst site, but they have not been previously documented on or near the site.



3.8 CULTURAL RESOURCES

3.8.1 Definition of Resource

The term "cultural resources" refers to any place, site, building, structure, object, or collection of these resources built or used by humans. It may include material remains of the past and the beliefs, traditions, rituals, and cultures of the present. As mandated by law, all federal installations and personnel must participate in the preservation and stewardship needs of archaeological and cultural resources and must consider potential impacts to these resources prior to any installation undertaking.

Cultural resources include historic properties as defined by the National Historic Preservation Act (NHPA) (54 U.S.C. § 300101 et seq.); cultural items as defined by the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001 et seq.); archaeological resources as defined by the Archaeological Resources Protection Act (16 U.S.C. §§ 470aa-470mm); and sacred sites as defined in EO 13007, Indian Sacred Sites, to which access is provided under the American Indian Religious Freedom Act (42 U.S.C. § 1996).

Cultural resources can include locations with enduring significance to the beliefs, customs, and/or practices of living communities. The term "historic property" is defined in the NHPA as:

"any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register of Historic Places (NRHP)". This includes artifacts, records, and remains which are related to historic districts, sites, buildings, structures or objects. Buildings and structures over 50 years of age require an Air Force evaluation of the property to determine eligibility for NRHP listing prior to implementing any action that may affect such resources.

Per NHPA regulations promulgated by the Advisory Council on Historic Preservation, the Air Force is required to consider the effects of its undertakings on historic properties. The process requires the Air Force to consult with the State Historic Preservation Office and/or applicable federally recognized Native American Tribes (Tribes). The Air Force, in consultation with the State Historic Preservation Office and Tribes, is required to assess direct and indirect effects of a proposed action on historic properties and to resolve any adverse effects that may occur. NHPA Section 106 consultation requirements are detailed in 36 CFR Part 800. Early coordination with the installation's cultural resources manager also guides the appropriate cultural resources consultation process.

For the purposes of this analysis, the term ROI is synonymous with the area of potential effect (APE) as defined under cultural resources legislation. The ROI for archaeological resources is limited to the footprint of ground-disturbing activities. The ROI for architecture is buildings that are or have the potential to be within historic districts or listed on the NRHP and includes a 150-foot buffer beyond the buildings where Proposed Action work would occur.

3.8.2 Existing Conditions

JB MDL operates its cultural resources management program in accordance with Air Force Manual (AFMAN)-7003, Environmental Conservation, Chapter 2, Cultural Resources Management. The Integrated Cultural Resources Management Plan (ICRMP, Air Force 2019) provides the internal compliance and management tool that integrates the entirety of the cultural resources program with ongoing mission activities. The ICRMP establishes priorities for the identification and standards for the evaluation of cultural resources and provides a schedule to accomplish program objectives during a 5-year program.

Prehistoric and Historic Archaeological Resources

McGuire. In 1993, the National Park Service conducted an assessment of the archaeological potential of McGuire, including all of its discontiguous properties, in order to identify which areas of the base required intensive archaeological survey in order to comply with Section 306101 of NHPA (Herbert and Grumet 1993). This assessment identified five archaeologically sensitive areas on the main base. The authors recommended that areas on the main base outside these five areas were not archaeologically sensitive. Neither the North Run site nor the Back 9 site are within any of the identified sensitivity areas. Sensitivity Area 4, which is just southwest of the North Run site, comprises the historic center of the base. Sensitivity Area 5, which is approximately one-half mile southwest of the Back 9 site, is in an undeveloped area at the northeastern end of the present flightline (Herbert and Grumet 1993).

A basewide survey was conducted in 1995 by the Argonne National Laboratory (Moeller et al 1995) for archaeological resources and pre-Cold War-era buildings and structures. The five sensitivity areas defined by Herbert and Grumet (1993) were reconsidered, and a sixth area was added, based on the potential for buried prehistoric remains in undisturbed alluvial deposit,

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and on the basis of buildings shown on historic maps. Sensitivity Area 6 is just east of the North Run site.

Overall, no evidence for National Register (NR)-eligible prehistoric archaeological resources has been found on McGuire. Two sites were recorded in 1941 (28-Bu-428 and 28-Bu-429). However, later surveys failed to relocate the sites, indicating that both may have been destroyed. A Phase I archaeological survey was conducted in 1994 as part of the Moeller et al (1995) study in areas thought to be of high archaeological sensitivity at McGuire. The survey found areas of prehistoric and historic potential along the North Run. Shovel testing in these areas failed to produce evidence of Native American sites or other prehistoric sites. While the stream courses that once crossed McGuire may have been occupied by Native American populations in prehistory, archaeological survey indicates that much of McGuire has been disturbed and is not likely to contain intact sites (Air Force 2019). The 1994 Phase I survey also identified 11 historical archaeological sites, of which the report recommended eight as potentially eligible for the NR. Phase II archaeological surveys of the 11 sites were conducted. As a result, three historic archaeological sites were found eligible for listing in the NR (28-Bu-458, 28-Bu-459, and 28-Bu-473) (Air Force 2019). However, no known sites occur within the archaeology APE on McGuire for the ground-mounted solar arrays, and the rooftop-mounted components at McGuire associated with the Proposed Action would not affect archaeological resources in the APE.

Dix. In 1982 and 1983, Louis Berger & Associates and Heritage Studies, Inc. conducted a Phase I survey of the Dix (1985). The project included a 10 percent sample of Dix's 31,000 acres. Four prehistoric sites were located, and five archaeologically sensitive areas on Dix were identified. None of the prehistoric sites identified are within one-half mile of any of the proposed solar arrays. One archaeologically sensitive area was identified just east of the Back 9 site and is in the vicinity of Taylor's Mountain, primarily along the Browns Mill-Cookstown Road and Mount Road (Louis Berger & Associates and Heritage Studies 1985).

Additional studies were conducted in 1996, 1997, 1998, 2003, and 2017 (Air Force 2019). To date, approximately 70 percent of the total accessible land within the Dix area, excluding active ranges, has been surveyed at the Phase I level. Over 100 archaeological sites have been identified. Approximately 25 percent of the sites have been evaluated for eligibility. Thirteen were found eligible for inclusion in the NRHP (Air Force 2019). Historic archaeological sites at Dix include the Hanover Furnace site, which is NRHP-listed, and the Cherry Valley Tavern site which was discovered in 1983 but no longer exists in situ, although associated features and additional sites are known for the immediate vicinity of the former site. Since at Dix the Proposed Action would consist only of rooftop solar arrays, and no ground disturbance would occur, no archaeological sites would be in the APE.

Lakehurst. An identification level cultural resource survey was completed at Lakehurst in 1994 (Baystate Environmental Consultants). The survey defined and recommended eligible the LTA Historic District and recorded the contributing elements of the District. Additional information regarding the LTA Historic District is provided below under Historic Architectural Resources. The survey also identified areas with potential to contain archeological sites, although no subsurface testing was completed. Areas thought to be high potential sensitivity with respect to prehistoric archaeological sites were defined as areas within 325 feet of wetlands (Baystate Environmental Consultants 1994), which would include the area adjacent to the Lakehurst site, as described in Section 3.7.2 for Biological Resources. Subsequent studies conducted in 2008 and 2013 included subsurface testing, however, produced no evidence of prehistoric occupation

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in any of the test areas, although undisturbed and unsurveyed areas have the potential to contain historic archaeological remains (Air Force 2019).

As such, no prehistoric archaeological sites have been identified on the Lakehurst area (Air Force 2019). Two historic archaeological resources are within the Lakehurst area: the Knoll Site (28-Oc-177) and the Russian Proving Ground (28-Oc-178) (also known as Eddystone, the Lakehurst Proving Ground, or World War I Proving Ground). The Knoll site is approximately 1mile northwest of the proposed ground-mounted array, and the Russian Proving Ground is over 1-mile northwest of the proposed array. Camp Kendrick is located 3 miles west of the Lakehurst site. The Lakehurst ground-mounted solar array site is located between the former Camp Kendrick and the Russian Proving Ground. However, no sites are known to occur within the archaeology APE on Lakehurst and the APE for the Lakehurst ground-mounted solar array is historically disturbed by use as a golf course; therefore, there is low potential for intact archaeological sites to occur in the project area (Air Force 2019). Rooftop-mounted components at Lakehurst associated with the Proposed Action would not affect archaeological resources in the APE.

Historic Architectural Resources

McGuire. All buildings and structures at McGuire with the potential to be eligible for inclusion in the NR built prior to 1947 and Cold War era facilities less than 50 years old have been inventoried and evaluated. In 1998, two Cold War era resources were found eligible for the NR for exceptional significance: the Boeing Michigan Aeronautical Research Center Missile Site (BOMARC) and Semi-Automatic Ground Environment (SAGE) Complex. The BOMARC facility associated with McGuire was constructed between 1957 and 1959 and is a complex of 110 onestory buildings and structures developed as a launch site for the BOMARC missile. It is located 6 miles east of the Back 9 site and 8 miles east of the North Run site. The SAGE Complex consists of Building 1907, a square, four-story tall, windowless, reinforced concrete structure built in 1956 which functioned as a control center for communications and remote missile launching for the NIKE and BOMARC missile systems, and Buildings 1908 and 1909 which were part of the original SAGE building and served to power and cool the building. These buildings are located just over one-half mile west of the Back 9 site. A fourth building, Building 1506, was constructed in 1957 as a communications transmitter and is located one-half mile south of the Back 9 site. Because of the relationship between the BOMARC facility and SAGE Complex, they are considered a single, discontinuous historic district: the McGuire BOMARC-SAGE Historic District, eligible as "a keystone in the U.S. strategy of deterrence and air defense during the early stages of the Cold War" (Air Force 2019).

The closest historic buildings to the North Run site at McGuire are Building 3109 (approximately 500 feet south of the site), Building 3013 (approximately 700 feet southeast) and Building 3209 (approximately one-quarter mile south). According to the ICRMP (Air Force 2019), Building 3109 was determined not eligible in 2018 by Potomac-Hudson Engineering, Building 3013 still requires evaluation, and Building 3209 was determined eligible for being an outstanding example of a double cantilever hangar by Tetra Tech in 2013 and received SHPO concurrence in August 2014.

The closest historic buildings to the Back 9 site at McGuire are Buildings 1914, 1915, 1916, 1917, 1918, 1919, and 1922, which are less than 700 feet west of the site. Building 1922 still requires evaluation, and the other buildings were subject to a Program Comment from the Advisory Council on Historic Preservation (ACHP) in 2006. This program alternative allows a

federal agency to request that the ACHP comment on a category of undertakings in lieu of commenting on a case-by-case basis. This includes ammunition storage facilities such as Buildings 1914 through 1919. This grouping of buildings is subject to a minimum prescribed distance between munitions site handling and storage areas and inhabited areas of 500 feet (Air Force 2008).

None of the solar arrays or project features proposed at McGuire are on historic buildings or within a half mile of an Historic District.

Dix. Historic architectural resources at Dix include the Scott Plaza Historic District and several buildings (Buildings 3135, 5353, 9726, and 9004) that are eligible for listing in the NR. However, none of the rooftop solar arrays sites at Dix are proposed on historic buildings.

Lakehurst. The Lakehurst LTA Historic District is an early air transportation historic district located at Lakehurst. It has a period of significance spanning the entire period of Navy LTA operations from 1921 to 1962. The District is comprised of 74 contributing properties and 10 non-contributing properties. Originally delineated as part of the Cultural Resources Survey for Naval Air Engineering Station, New Jersey in 1994, the District was determined eligible for inclusion in the NRHP in 1996. Most of the contributing properties were constructed between 1919 and 1945. The main body of the District consists of an industrial area and two arms that extend northwest along Lansdowne Road to a residential/administrative area and southwest along Saniuk Road to Mat 3. A third arm extends northeast to include Hangar 4. The industrial area along Hancock Road contains the main concentration of operational facilities. Hangar 1 is a National Historic Landmark built in 1921. It is best known as the intended destination of the rigid airship Hindenburg prior to when it crashed on May 6, 1937 (Air Force 2019). The proposed solar site at Lakehurst is adjacent to this part of the LTA Historic District. Hangar 1 is approximately one-quarter mile east of the solar site. The District also has two non-contiguous outlying areas and one isolated property. The first consists of Hangars 5 and 6 (Buildings 194 and 195). Landing Mat 3, and various support facilities. This area is less than a guarter of a mile from the Lakehurst site. The second non-contiguous area consists of the Cathedral of the Air (Building 264) and associated grounds located approximately one mile southeast of the solar site (Air Force 2019).

Native American Consultation

As discussed in section 1.5.2, EO 13175, Consultation and Coordination with Indian Tribal Governments (6 November 2000) directs federal agencies to coordinate and consult with Native American tribal governments whose interest might be directly and substantially affected by activities on federally administered lands. The Native American tribal governments that will be coordinated with regarding this action are listed in section 6.

There are two federally recognized tribes that have historical association with JB MDL and have expressed interest in activities at JB MDL: the Delaware Nation and the Delaware Tribe of Indians. The Air Force consulted with these tribes. To date, no traditional cultural properties or sacred sites have been identified at JB MDL. The Delaware Nation concurred that there would be no impacts to cultural or religious sites of interest (Appendix A).

3.9 EARTH RESOURCES

3.9.1 Definition of Resource

Earth resources are the soil types, geologic features and processes, and topography of an area. Soils are the unconsolidated materials overlying bedrock or other parent material. Differences among soil types in terms of their structure, strength, shrink-swell potential, and erosion potential affect their abilities to support certain applications or land uses. Geologic features may include caves, rock outcroppings, canyons, or other unique features. Relevant geologic processes include slides, erosion, and sinkholes. Topography refers to the earth's surface features, such as mountains, hills, valleys, and canyons. The ROI for earth resources is the Proposed Action sites.

3.9.2 Existing Conditions

Soils throughout JB MDL are varied given the amount of acreage the installation covers, which is a total of 41,995 acres. The most prevalent soil types on JB MDL as delineated in the two county soil maps include Lakewood Sand (9,663 acres; 23 percent), Lakehurst Sand (7,455 acres; 18 percent), and Atsion Sand (4,560 acres; 11 percent) (Air Force 2020). Many other soil types that each represent less than 10 percent of the land area on JB MDL also occur on the base (Air Force 2020). The North Run and Back 9 sites are underlain by the Tertiary Aged, Lower member of the Kirkwood Formation (Dynamic Earth 2020a, 2020b). The Lower member of the Kirkwood Formation consists of light yellow to white, massive to thick bedded (i.e., layered), fine to medium grained sands interbedded with clay (Dynamic Earth 2020a, 2020b). The Lakehurst site is underlain by the Tertiary Aged, Cohansey Formation (Dynamic Earth 2020c). The Cohansey Formation consists of white to yellow sand with local gravel and clay deposit; the sand is typically medium grained and moderately sorted but can range from very coarse to fine grained and poorly to well sorted (Dynamic Earth 2020c).

The soil series at the North Run site are Adelphia, Collington, Fluvaquents, Freehold, and Udorthents (Dynamic Earth 2020a). Adelphia and Freehold are fine sandy loam soils and Collington, Fluvaguents, and Udorthents are loam to loamy soils, all of which have a high capacity to transmit water (Dynamic Earth 2020a). Adelphia, Collington, Fluvaguents and Freehold are gently sloping and Udorthents are moderately sloping (Dynamic Earth 2020a). Adelphia, Collington, Freehold, and Udorthents are well drained, whereas Fluvaguents are poorly drained with frequent ponding and flooding (Dynamic Earth 2020a). Soils on the North Run site include existing fill material and natural coastal plain deposits (Dynamic Earth 2020a). These materials are preliminarily expected to be suitable for reuse as structural fill material (Dynamic Earth 2020a). However, portions of the soils on the site are considered extremely moisture sensitive and will require moisture conditioning and/or become impractical for reuse if exposed to moisture (Dynamic Earth 2020a). Soils on the landfill (LF 003) that occupies that northern portion of the site are not anticipated to be suitable for reuse as structural fill (Dynamic Earth 2020a). Soils in the IRP site ST007 that are within the project site would also not be reusable since they are contaminated with PCBs at levels that exceed the NJDEP Residential Direct Soil Remediation Level (or NJDEP unrestricted use). If soils are removed from IRP site ST007 during construction, they will be tested (every 200 cubic vards removed) and disposed of properly. Additional details on the IRP site are provided in sections 3.6 and 4.6. Additional clean fill is being added to some areas of the landfill that overlap with the project site as a separate remedial action. This work is expected to occur in the summer of 2021 prior to the Proposed Action (K. Mak, personal communication, December 8, 2020).

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The soil series at the Back 9 site are Jade Run, Galloway, and Shrewsbury (Dynamic Earth 2020b). These series consist of sand and fine sandy loam soils that have a high capacity to transmit water and are gently sloping (Dynamic Earth 2020b). Jade Run and Shrewsbury are poorly drained, and Galloway is moderately well drained (Dynamic Earth 2020b). Soils on the Back 9 site include existing fill material and natural coastal plain deposits (Dynamic Earth 2020b). These materials are preliminarily expected to be suitable for reuse as structural fill material (Dynamic Earth 2020b). However, portions of the soils on the site are considered extremely moisture sensitive and will require moisture conditioning and/or become impractical for reuse if exposed to moisture (Dynamic Earth 2020b).

The soil series at the Lakehurst site are Atsion and Lakehurst (NRCS 2020). The Atsion soil series represents a very small percentage of the site. These series consist of sand that has a high capacity to transmit water and are gently sloping (NRCS 2020). Atsion is poorly drained and Lakehurst is moderately well drained (NRCS 2020). The Urban Land soil series also occurs at the Lakehurst site, but a detailed description of this soil is not reported (NRCS 2020). Soils located in the vicinity of the Lakehurst site include natural coastal plain deposits (Dynamic Earth 2020c). Therefore, soils on the Lakehurst site are expected to include these deposits. These materials are preliminarily expected to be suitable for reuse as structural fill material (Dynamic Earth 2020c).

Major geologic features do not occur within the project sites. The topography of the sites is relatively flat with minor/gradual changes in elevation within each site. In addition, soils are not of concern at the rooftop and carport solar sites or at the buildings where indoor energy upgrades would occur since these are previously developed areas.

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4. ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This section describes the potential environmental consequences that are likely to occur as a result of implementation of all Alternatives that are being considered and analyzed. Impacts described in this chapter are evaluated in terms of type (positive/beneficial or adverse), context (setting or location), intensity (none, negligible, minor, moderate, severe), and duration (short-term/temporary or long-term/permanent). The type, context, and intensity of an impact on a resource are explained under each resource area. Unless otherwise noted, short-term impacts are those that would result from the activities associated with a project's construction and/or demolition phase, and that would end upon the completion of those phases. Long-term impacts are generally those resulting from the operation of a proposed project.

4.2 AIR QUALITY

Alternative 1 (Preferred Alternative)

Short-term minor adverse effects on air quality would occur from construction activities associated with implementation of the Proposed Action. Short-term emissions would result from on-road vehicles (e.g., employee vehicles and delivery trucks) and off-road vehicles and equipment (e.g., backhoes, dozers, portable generators, and cranes) associated with site preparation, grading and construction of new project components. Short-term emissions would end once the 36-month construction phase is complete.

Long-term minor adverse effects on direct criteria pollutant air emissions would occur from the installation of three 2-MW emergency generators and numerous boilers. Additionally, there would be long-term beneficial effects on air quality from the installation of the solar photovoltaic arrays, reducing power generated offsite from the burning of fossil fuels, and subsequently reducing regional air emissions of both criteria pollutants and GHGs.

To be conservative, it was assumed that new commercial-grade boilers, sufficient to heat up to 25 million square feet of indoor space, would be installed as new units as part of this project. The emissions from these assumed units account for the large majority of operational emissions and represent the worst-case scenario. All necessary permits would be secured for the new generators and boilers and the appropriate Title V permits would be amended to incorporate new equipment and to remove old equipment.

The Air Conformity Applicability Model was used to estimate both the construction and operational emissions from the Proposed Action (**Table 4-1**). These emission estimates include construction, heating of proposed buildings, and back-up generators. To determine if the Proposed Action would have a significant impact on air quality, and to determine if the general conformity rule applies, annual emissions of nonattainment pollutants and precursors were compared to the *de minimis* threshold values of 50 tpy for VOCs, and 100 tpy for NO_x, SO₂, and PM_{2.5}. Annual emissions of attainment pollutants were compared to the major source thresholds of 25 tpy for lead, and 100 tpy for CO and PM₁₀. The total direct and indirect emissions would be below the significance indicators for each criteria pollutant; therefore, the general conformity rules would not apply, and the level of effects would be minor. Air Conformity Applicability Model output files containing detailed emissions calculations are included in Appendix B.

	Emissions (tons per year)		Significance Indicator	
Pollutant	Construction	Operations	Threshold (tpy)	Exceedance (Yes or No)
Volatile organic compounds	0.3	1.2	50	No
Nitrogen oxides	1.9	17.9	100	No
Carbon monoxide	1.9	14.5	250	No
Sulfur oxides	<0.1	<0.1	100	No
PM ₁₀	21.9	1.1	250	No
PM _{2.5}	<0.1	1.1	100	No
Lead	<0.1	<0.1	25	No
Greenhouse gasses (as CO ₂ e)	434	18,387	-	-

Table 4-1. Emissions of Criteria Pollutants Compared to Significance Indicators

Source: 40 CFR 93.153, and 40 CFR 52.21.

Notes: $CO_2e = carbon dioxide equivalent$; $PM_{10} = particulate matter less than 10 microns in diameter$; $PM_{2.5} = particulate matter less than 2.5 microns in diameter$.

As a reasonable upper bound, it was assumed that all on-base construction activities would be compressed into a single 12-month period. Therefore, regardless of the ultimate implementation schedule, annual emissions would be less than those specified herein. Small changes in facilities sites and ultimate design, and moderate changes in quantity and types of equipment used would not substantially change these emission estimates, the determination under the general conformity rule, or level of effects under NEPA. Notably, the emissions for all criteria pollutants would be below the *de minimis* thresholds; therefore, the general conformity rule would not apply regardless of any changes in the attainment status of the region for any criteria pollutant.

The power generated by the proposed solar arrays would indirectly reduce annual GHG emissions by approximately 27,900 tons CO₂e per year, from off-base power generation facilities (i.e., fossil fuel power plants) (Appendix B, EPA 2012, EPA 2019). Other project features such as upgrading existing lighting and control systems, replacing transformers, AHUs, air conditioning packaged units, and mechanical insulation would also help reduce emissions by offsetting emissions from conventional energy sources.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and there would be no changes in air emissions or air quality when compare to existing conditions. The beneficial effects from the upgrade in energy management throughout the base (e.g., installation of solar arrays) would not be realized.

4.3 WATER RESOURCES

Alternative 1 (Preferred Alternative).

Short-term minor adverse effects would be expected on water resources from implementing the Proposed Action. These minor impacts would result from soil disturbed during construction activities potentially entering surface waters. No long-term effects on water resources would be expected. In addition, no impacts to water resources would result from the installation of rooftop or carport solar panels or other indoor energy upgrades.

Small portions of the North Run and Back 9 sites are located on floodplains. However, the ground-mounted solar arrays would not be constructed on the entirety of the sites, and no construction would occur within the floodplains in the sites. No modifications to floodplains would occur under the Proposed Action. Therefore, no impacts to floodplains would occur. In addition, based on the topography of the sites, the proposed solar arrays would not be impacted by flooding.

Minor soil disturbance would occur on the North Run, Back 9, and Lakehurst sites during construction. No ground disturbance would occur within a 150-foot buffer from wetlands, which would be flagged in the field prior to construction and checked periodically. All construction would be done in accordance with the erosion and sedimentation control measures (e.g., silt fencing, swales, and detention basins) in the project-specific SWPPP, which would minimize erosion of soil into surface waters and wetlands. All soil erosion and sediment control plans for the project would be certified by the Burlington and Ocean County Soil Conservation Districts. In addition, authorization to discharge stormwater under the NJDEP general permit for construction activities would be attained. Therefore, impacts to surface waters would be short-term, minor, and minimized by implementing measures.

During operations, the project may change stormwater runoff patterns within the sites. However, the engineering design includes stormwater management features that would prevent soil erosion. In addition, the installation of ground-mounted panels would also have a beneficial effect of shielding the soils beneath the panels and reducing erosion of soil under the panels.

Installation of the solar arrays on the ground surface would not disturb groundwater. In addition, only approved cleaning solutions that would not contribute to groundwater or surface water contamination would be used to clean the solar panels after installation. Therefore, no impacts to groundwater would occur.

No Action Alternative.

Under the No Action Alternative, the project would not occur and there would be no effects on water resources.

4.4 SAFETY AND OCCUPATIONAL HEALTH

Alternative 1 (Preferred Alternative).

Short- and long-term minor adverse effects would be expected from implementing the Proposed Action. These effects would result from construction activities and installation and maintenance of project equipment. Workers would be exposed to risks associated with site preparation, grading, and construction. Also, workers installing project equipment on rooftops and inside buildings could be exposed to building materials containing ACM or LBP.

Prior to installation of project equipment, the contractor would coordinate with base environmental personnel and review ACM and LBP surveys, if available, to determine health and safety protective measures. If surveys are not available, the areas to be disturbed by equipment installation would be surveyed prior to commencing work or affected building components would be treated as if they contain ACM or LBP. Therefore, no exposure to hazardous building materials would be expected; as a result, there would be no adverse effect. Contractors would also prepare site-specific health and safety plans prior to commencing work. Health and safety plans would outline plans to ensure work would be conducted in a way that is protective of workers, the public, and the environment. Health and safety plans would be prepared in accordance with DoD and Air Force regulations and would comply with OSHA standards. Therefore, short-term safety and occupational health risks associated with construction would be minor.

Once operational, project equipment would require routine maintenance. Activities performed by maintenance workers would involve some risks such as risk of electrical shock and working at heights (on roofs or ladders). These risks would be addressed in the site-specific health and safety plan that would conform with applicable DoD and Air Force regulations and comply with OSHA standards. Therefore, long-term safety and occupational health risks associated with operation and maintenance would be minor.

A FAA glint/glare study has been conducted by Ameresco for all proposed ground-mounted solar locations. Based on the angle of incoming aircraft at the JB MDL airfields, no glint/glare impacts were identified. The roof-mounted solar PV systems on rooftops and carports are unlikely to have glint/glare issues; however, all solar systems on rooftops would be screened prior to finalizing the project design and if issues are identified, another rooftop without glint/glare issues would be chosen. Therefore, there would be no safety or health impacts from glint/glare associated with the Proposed Action.

No Action Alternative.

Under the No Action Alternative, the Proposed Action would not be implemented. There would be no change to the baseline at the project sites, so there would be no effect on safety and occupational health.

4.5 HAZARDOUS MATERIALS / WASTE

Alternative 1 (Preferred Alternative).

Solar Photovoltaic (PV) Arrays and Battery Energy Storage Systems (BESS):

Short-term and long-term minor adverse effects would be expected from implementing the Proposed Action. During construction, the Proposed Action would generate nonhazardous vegetation waste (green waste) from clearing and grubbing the sites for the PV arrays. While the North Run site at McGuire and the proposed PV site at Lakehurst are open space, the Back 9 site has existing vegetation that would generate green waste from site work. It is not anticipated that land-clearing and grading activities at the Back 9 site would generate a need for off-site disposal of green waste. If feasible, green waste would either be chipped and re-used on-site as mulch to control soil erosion or burned in place under an open burning permit if applicable. No pesticides or herbicides would be used during construction or operation. Therefore, no adverse health effects to the public, construction personnel, wildlife, or sensitive vegetation would occur.

Grading, drilling, or excavation at the site has the potential to mobilize hazardous materials currently in the soil. This could result in exposure of personnel and other sensitive receptors to contaminant levels that could result in short-term and/or long-term health effects. To avoid potential contamination and hazardous releases, the project would utilize a mix of ballasted and traditional concrete foundations to support the PV arrays. The ballasted systems limit ground

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disturbance and would be utilized on the roof-mounted arrays as well as portions of the North Run site. The North Run site is located atop two IRP sites, ST007 and LF003. ST007 was active from 1960 to 1998 and used as a material and hazardous waste storage facility. Land use controls were selected in the draft final Record of Decision for ST007. The land use control for the site is to prevent any future residential use. The installation of a solar PV array at ST007 would be consistent with the land use controls at the site (K. Mak, personal communication, December 8, 2020). Soils in the IRP site ST007 that are within the project site would not be able to be reused. Soils that are removed from IRP site ST007 during construction would be tested (every 200 cubic yards removed) and disposed of properly. LF0003 was a mixed waste landfill site operated between 1950 through the 1960s (USACE 2019). Additional clean fill is being added to some areas of the landfill that overlap with the project site as a separate remedial action. This work is expected to occur in the summer of 2021 prior to the Proposed Action (K. Mak, personal communication, December 8, 2020).

Although the specific type of PV solar modules has not been selected for the project, it is likely that the modules may utilize mono- or poly crystalline silicon or Cadmium Telluride (CdTe) technology. PV modules may contain small amounts of regulated materials (e.g., cadmium [Cd], lead [Pb], selenium [Se], copper [Cu], nickel steel [9Ni], and silver [Ag]), which vary from one technology to another. Because such materials are in a solid and non-leachable state, potential broken crystalline silicon PV panels would not be a source of pollution to surface water, stormwater, or groundwater. In PV modules using CdTe technology, the cadmium is in the environmentally stable form of a compound rather than the leachable form of a metal. CdTe releases are unlikely to occur during accidental breakage. Furthermore, studies of the panels where the stability of the encapsulation has been jeopardized, such as if a broken panel were exposed to fire, have indicated that such events still result in negligible cadmium (Fthenakis 2002). Therefore, the PV solar modules would have no effect on hazardous materials and waste.

Installation of rooftop solar arrays that would require modification of or connections to existing building components would require confirmation that ACM or LBP are not present in areas being disturbed. If such data are not available, materials would be tested prior to disturbance or treated as if they contained ACM or LBP to ensure proper handling and disposal. Operations involving ACM and LBP would be done in accordance with all applicable regulations and JB MDL's Hazardous Materials Management Plans for ACM and LBP. Therefore, no adverse effect on hazardous materials and waste would be expected.

During the operational period, solid waste generated by the operation and maintenance of the PV and BESS systems is expected to be minimal. It would include waste associated with the repair and/or replacement of damaged PV and BESS system components and green waste associated with the clearing of vegetation around the PV systems, as needed during operations. While the PV panels may contain hazardous materials, the panels are sealed under normal operating conditions and would not pose a threat of release as a hazardous waste. However, coolant used in inverters, mineral oil used in transformers, and vehicle antifreeze, petroleum, oils, lubricants are considered hazardous substances. Inverters, transformers and vehicles utilize closed systems, and only accidental damage to the equipment would release hazardous materials.

The BESS would utilize a closed system of lithium-ion (Li-ion) batteries. The McGuire BESS installation would provide 4-MW/8-MWh capacity and the Lakehurst BESS would be a 2-MW/4-MWh facility. Li-ion batteries are ubiquitous and found in a wide-array of products from

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smartphones to electric cars. The main hazards associated with Li-ion batteries are from a thermal event (fire), electrical event, or mechanical failure. To prevent hazardous conditions associated with the BESS such as a fire, the BESS would be designed to meet engineering and fire codes and include ventilation and containment systems. Batteries would be regularly inspected and properly maintained until the end of their service life, and then recycled or disposed of properly in accordance with applicable regulations. Therefore, there would be no adverse effect on hazardous materials and waste.

Other Energy Conservation Measures:

In addition to the PV arrays and BESS, the Proposed Action includes the installation of other energy conservation elements including: natural gas generators, lighting, control systems, transformers, thermal window glazing film, boilers, chillers, AHUs, air conditioning packaged units, and mechanical insulation. These proposed energy conservation measures are regularly implemented in both public and private applications with limited risk of adverse effects.

In all cases, hazardous materials would be stored and handled in accordance with all federal, state, and local regulations and codes. Incompatible materials would be stored in separate storage and containment areas. Containerized hazardous materials would be stored in original containers appropriately designed for the individual characteristics of the contained material. Maintenance and service personnel would be trained to handle these materials.

Hazardous substances used and waste generated during construction and operation of the proposed project would be minimal. These materials would be handled and disposed of in accordance with local, state, and federal regulations and with established Air Force and DoD hazardous materials management procedures, as applicable. Construction vehicles that use petroleum, oil, and lubricants, and construction contractors would be responsible for preventing spills by implementing proper storage and handling procedures and following base procedures. Ground clearing and digging operations would require prior coordination with base environmental personnel and approved dig permits prior to commencing work, and documentation indicating that any fill brought on site is clean. Therefore, there would be no adverse effect on hazardous materials and waste from implementing the Proposed Action.

No Action Alternative.

Under the No Action Alternative, the Proposed Action would not be implemented. There would be no additional generation of solid or hazardous waste as the PV array, BESS, and other energy conservation measures would not be installed or implemented.

4.6 INFRASTRUCTURE AND UTILITIES

Alternative 1 (Preferred Alternative).

Stormwater. Short-term minor adverse effects on stormwater infrastructure would be expected from construction activities associated with implementing the Proposed Action. All construction activities that disturb 1 acre or more of land would require coverage under New Jersey's Stormwater Construction General Permit (Permit 5G3). Contractors would use stormwater BMPs such as silt fencing, swales, and detention basins as necessary to control stormwater runoff from construction locations, thereby altering the existing stormwater infrastructure on each site where ground disturbance would occur. Upon completion of construction and in accordance with both the construction general permit and the NPDES stormwater program (40

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CFR Part 122), contractors would leave in place a combination of structural and/or nonstructural stormwater BMPs appropriate for each site to ensure that post-construction runoff does not exceed the pre-construction stormwater runoff rate or quantity. No long-term or significant adverse effects on the stormwater infrastructure at any project location or on the larger stormwater infrastructure of JB MDL would be expected, and no modifications to any NPDES permit held by JB MDL would be required. No effects on stormwater systems on JB MDL would be expected from operations of the solar PV arrays and other infrastructure installed as part of the Proposed Action. After construction activities were completed the contractor would leave in place appropriate stormwater infrastructure to ensure that stormwater runoff from the base would be in accordance with all applicable NDPES permits and state and local regulations.

Electrical. Short-term minor adverse effects on the electrical infrastructure of JB MDL would be expected from construction activities associated with implementing the Proposed Action. Shortterm impacts would be caused by localized service interruptions while new system components were being installed and tied into the existing system. Any interruptions to electrical service at JB MDL would be coordinated well in advance with base operations and environmental personnel. Interruptions would be scheduled to minimize disturbance of base operations. No long-term or significant adverse effects on the electrical infrastructure of JB MDL would be expected. Long-term moderate beneficial effects on the electrical systems at JB MDL would be expected from implementing the Proposed Action. Ameresco would complete a detailed analysis of the proposed solar PV arrays, BESSs, and other aspects of the Proposed Action to ensure the existing distribution, electrical infrastructure and substation interconnection points would be able to accommodate the base load plus the power generated the PV assets, and that of the proposed generators and BESSs. The modeling would ensure that the system would integrate well with the existing electrical systems at JB MDL and no adverse operational effects would result. Over the long term, the solar PV arrays, upgraded lighting fixtures, integrated energy control systems, and modern boilers, chillers, and AHUs would reduce JB MDL's demand on the public electrical grid, save on energy costs, and improve energy resiliency and security, resulting in a beneficial effect. No long-term adverse or significant effects would be expected.

Other Infrastructure. Short-term minor adverse effects on other aspects of infrastructure at JB MDL would be expected from construction activities associated with implementing the Proposed Action. As with work on the electrical system, replacing lighting fixtures and lamps, transformers, boilers, and air conditioning units, and installing window thermal sheeting would involve temporary interruptions to services in individual buildings or use of areas in the buildings, but any interruptions would be coordinated with base operations and environmental personnel and scheduled to minimize disturbance of base operations. Long-term minor beneficial effects on other aspects of infrastructure at JB MDL would be expected from implementing the Proposed Action. The new infrastructure elements (lighting, energy control systems, transformers, boilers, chillers, and air handling units) would be expected to require less maintenance and repair than the existing systems, which would mean fewer interruptions of service in individual buildings and less strain on base operations caused by such interruptions.

No Action Alternative.

Under the No Action Alternative, the Proposed Action would not be implemented. There would be no effects on infrastructure and utilities.

4.7 BIOLOGICAL / NATURAL RESOURCES

Alternative 1 (Preferred Alternative).

Short-term minor adverse effects and long-term minor adverse effects to biological resources would occur from implementation of the Proposed Action. Short-term minor impacts would result from noise and the presence of workers during vegetation removal and site preparation at the ground-mounted solar sites, and construction at the ground-mounted and rooftop/carport sites. These activities are expected to cause wildlife to temporarily leave the sites. Long-term minor impacts would result from permanent removal of vegetation and habitat. Permanent removal of vegetation and habitat at the ground-mounted solar sites is expected to displace species that may use the sites. No impacts to biological resources would result from the installation of indoor energy upgrades because these locations do not provide habitat for plants or wildlife. In addition, all outdoor lighting upgrades would use downward facing lights with opaque shields to prevent light pollution and disturbance to migratory birds or bats at night.

While wetlands are known to occur near the ground-mounted solar sites, ground disturbance would not occur within 150 feet of wetlands. The 150-foot wetland buffers would be flagged in the field by a qualified biologist prior to the start of construction, periodic checks would be conducted during construction activities to ensure that the wetland buffers are maintained at all times, and appropriate BMPs would be implemented to eliminate potential off-site stormwater impacts. Therefore, no impacts to wetlands would occur.

Birds protected by the MBTA might use the ROI for roosting, foraging, or nesting. Birds may nest in trees, shrubs, grass, or buildings depending on their habitat preferences. Active nests of birds listed under the MBTA are protected and may not be removed until after the young have left the nest. To avoid impacts to nesting birds, no tree trimming, tree removal, vegetation clearing, soil excavation, or construction would occur during the nesting season of April 1 to September 30. If it is necessary to conduct these activities during the nesting season, the project sites and adjacent buffer areas would be surveyed for active nests by a qualified biologist. The survey would be conducted no more than 5 days prior to scheduled work and performed within the project sites and adjacent buffer areas with potential suitable habitat for nesting birds. If nesting birds are found, an appropriate buffer for protection of the species would be established around the nest. No project work would be allowed within the buffer until after the applicable season has ended or the species has vacated the area as determined by a qualified biologist. In addition, once the project became operational, if bird nests were found on project equipment, they would be managed in compliance with the MBTA. Therefore, no impacts to MBTA species would be expected.

Special-status roosting bats could use the proposed rooftop solar locations on McGuire, Dix, and Lakehurst, and the proposed carport solar locations on McGuire. If project work is conducted at these locations during the NLEB active season (April 1 to September 30), a preconstruction survey of the project sites and adjacent buffer areas with potential suitable habitat will be conducted by a qualified biologist would be required. The survey would be conducted no more than 5 days prior to scheduled work. If roosting bats are found, an appropriate buffer for protection of the species would be established around the roost. No project work would be allowed within the buffer until after the applicable season has ended or the species has vacated the area as determined by a qualified biologist. Therefore, impacts to these species at the rooftop and carport locations are unlikely to occur and would be minor.

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In addition, the JB MDL Natural Resources Manager would periodically monitor the sites prior to and during vegetation clearing for the presence of special-status species, particularly reptiles. If any are discovered, construction personnel would be required to contact the Natural Resources Manager. The Natural Resources Manager would attempt to capture and relocate the species to other suitable habitat on the base and would determine if additional consultations or measures would be required. Therefore, impacts to special-status species are unlikely to occur.

The solar array at the North Run site would remove up to 25 acres of mowed grasslands. This represents less than 1 percent of the grasslands on JB MDL. Native warm season grass would also be planted in areas where vegetation is cleared after the PV panels are installed, which would reduce the potential for establishment of invasive species and may create habitat for some wildlife species. No special-status species have been documented in the vicinity of the site. However, special-status birds and reptiles may use the site for breeding and foraging. The measures described above would be implemented to avoid impacts to wildlife. Therefore, impacts to these species are unlikely to occur and would be minor.

The solar array at the Back 9 site would remove up to 26 acres of golf course, which includes turf lawn and ornamental trees. This represents less than 1 percent of the wooded areas on JB MDL. The PV panels would be sited to avoid tree removal when possible. Native warm season grass would also be planted in areas where vegetation is cleared as described above. The State listed threatened barred owl is known to occur approximately 1 mile from the site. However, preferred barred owl forest habitat does not occur on the site, and therefore, this species is unlikely to occur. No other special-status species are known to occur in the vicinity of the site. However, special-status birds may use the grasslands and trees at the site for breeding and foraging, and reptiles may use the grasslands. The measures described above would be implemented to protect these species at the Back 9 site. The pre-construction nesting bird survey requirement at the Back 9 site would include the tree removal activities. Therefore, impacts to these species are unlikely to occur and would be minor.

The solar array at the Lakehurst site would remove up to 15 acres of grasslands. This represents less than 1 percent of the grasslands on JB MDL. No trees would be removed on Lakehurst. Native warm season grass would also be planted in areas where vegetation is cleared as described above. The USFWS IPaC tool was used to determine federally listed species that may occur in the area, which included the NLEB. Applicability of the Proposed Action under the Final 4(d) Rule for NLEB was determined by completing the USFWS NLEB Consultation and 4(d) Rule Consistency Determination Key Overview. Additional federally listed plant and wildlife species found in the IPaC were evaluated based on habitat on the site and documented occurrences in the vicinity of the site. JB MDL consulted with the USFWS using the streamlined consultation framework for the NLEB, which relies on the USFWS's January 5, 2016 intra-Service Programmatic Biological Opinion on the Final 4(d) Rule for section 7(a)(2)compliance. Therefore, the requirements of the Programmatic Biological Opinion on the Final 4(d) Rule for NLEB would also be followed. With respect to NLEB (federally listed threatened and State listed endangered), there are no known active maternity trees within 150 feet of or known hibernaculum within 0.25 mile of the site. As such, incidental take of individuals would be allowable under ESA provisions during construction on the site. However, the site is unlikely to provide roosting or foraging habitat for this species and no trees would be removed at the site adjacent to the recorded NLEB occurrence. Therefore, incidental take of this species is unlikely to occur and no impacts to this species are anticipated.

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Impacts to bog turtle (federally and State listed endangered) would be unlikely based on a recent survey of JB MDL in 2018 that found that no suitable bog turtle habitat remained on the base (Air Force 2020). In addition, a 150-foot buffer will be maintained around all wetlands and appropriate BMPs would be implemented to eliminate potential off-site stormwater impacts.

JB MDL initiated Section 7 consultation with the U.S. Fish and Wildlife Service and received concurrence that the Proposed Action would not adversely affect bog turtle, American chaffseed, Knieskern's beaked-rush, and swamp pink (Appendix A).

Hibernacula for the State listed threatened northern pine snake are known to occur on the Lakehurst site and other special-status reptiles have the potential to occur. Therefore, a qualified biologist would monitor the site daily during vegetation clearing for the presence of special-status species, particularly the northern pine snake. If any are discovered, construction personnel would stop work and the JB MDL Natural Resources Manager would be contacted for attempted capture and relocation to other suitable habitat on the base. JB MDL would also create artificial hibernacula for northern pine snakes in similar grassland areas on Lakehurst to compensate for habitat loss resulting from the construction of the solar array. This effort would be coordinated with the New Jersey Division of Fish and Wildlife. Therefore, the loss of this habitat would not pose an irreversible adverse impact to the survival of the relatively abundant local population of northern pine snakes on Lakehurst. The measures described above would be implemented to avoid impacts to wildlife. The special-status plants and invertebrates with potential to occur on the Lakehurst site have not been previously documented on the site despite many rare plant and animal species surveys that have been conducted on the base (Air Force 2020). In addition, the federally listed chaffseed has never been observed at JB MDL. The invertebrate species are closely tied to the presence of their host plants, which are also not known to occur on the site. Therefore, impacts to these species are unlikely to occur and would be minor.

No Action Alternative.

Under the No Action Alternative, the project would not occur and there would be no effects on biological resources.

4.8 CULTURAL RESOURCES

Alternative 1 (Preferred Alternative).

No short-term effects would occur to cultural resources, although long-term minor indirect adverse effects to historic resources would occur from implementation of the Proposed Action.

Installation of the ground-mounted solar PV arrays would require ground disturbance of up to 25 acres at the North Run site, up to 26 acres of golf course at the Back 9 site, and up to 15 acres at the Lakehurst site. As discussed in Section 3.8.2, the areas where ground disturbance would be required do not contain documented prehistoric or historic archaeological resources and are unlikely to contain undocumented archaeological resources, so no effects are anticipated. In the unlikely event that archaeological artifacts are uncovered during construction, the contractor would follow procedures in standard operating procedure 7.4 *Discovery of Archaeological Resources and NAGPRA Cultural Items* (Air Force 2019).

Other project features such as installing carport solar PV at an existing carport, roof-mounted solar PV panels, upgrading existing lighting and control systems, replacing transformers,

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boilers, chillers, AHUs, air conditioning packaged units, and mechanical insulation would not require any ground disturbance and, therefore, would not affect any prehistoric or historic archaeological resources. In addition, the upgrades to existing lighting and control systems and replacement of transformers, boilers, chillers, AHUs, air conditioning packaged units, and mechanical insulation would occur completely inside existing structures, therefore, they would not impact historic resources. None of the roof-mounted solar PV panels would be installed on historic buildings and, therefore, would not directly affect any historic resources.

The closest eligible historic building to the North Run site at McGuire is Building 3209 (a hangar), which is approximately one-quarter mile south of the site. The ground-mounted solar PV array would be visible from this distance resulting in an indirect effect but, given its low-profile, impacts would be minimal.

The closest historic buildings to the Back 9 site at McGuire are Buildings 1914, 1915, 1916, 1917, 1918, 1919, and 1922, which are less than 700 feet west of the site. They are ammunition storage facilities in an area designated for industrial uses at McGuire (Air Force 2008) and have a required buffer of 500 feet from inhabited areas. The solar array would be visible from this distance but impacts would be minimal given the low profile of the solar array and the need to keep people away from the ammunition storage facilities.

There are no Historic Districts within a half mile of the proposed ground-mounted solar arrays at McGuire (North Run and Back 9). As discussed in Section 3.8.2, the ground-mounted solar PV array at the Lakehurst site is adjacent to part of the LTA Historic District and less than a quarter of a mile from another part of the District. The closest historic buildings to the Lakehurst site are associated with the LTA Historic District and include Hangars 5 and 6 (Buildings 194 and 195) which are less than a quarter mile west of the site, and Hangar 1 which is approximately one-quarter mile east of the site. The PV array at Lakehurst may result in indirect visual effects to the District if it is visible from the District. Appropriate landscaping would minimize this effect.

No Action Alternative.

Under the No Action Alternative, the project would not occur and there would be no effects on cultural resources.

4.9 EARTH RESOURCES

Alternative 1 (Preferred Alternative)

Short-term minor adverse effects would be expected on earth resources from implementing the Proposed Action. Short-term impacts would result from soil disturbance during construction of the ground-mounted solar arrays. No long-term effects on earth resources would be expected. In addition, no impacts to earth resources would result from the installation of rooftop solar panels or other indoor energy upgrades.

Installation of the solar arrays would include minor grading of soils on the North Run, Back 9, and Lakehurst sites during construction. However, no substantial changes to the topography of the sites would be required. No digging would occur in areas above the landfill on the North Run site. While digging may occur in the IRP site ST007 on the North Run site, all soils removed would be tested (every 200 cubic yards removed) and disposed of properly. All construction would be done in accordance with the erosion and sedimentation control measures in the project-specific SWPPP, which would prevent erosion. Therefore, construction would not

adversely affect large areas of native soils or cause or substantially increase the risk of erosion. In addition, the installation of panels on the landfill and IRP site ST007 would have a beneficial effect of shielding the soils beneath the panels and reducing erosion of soil under the panels.

Following construction, the project may change runoff patterns within the sites. However, the engineering design includes stormwater management features that would prevent soil erosion. All soil erosion and sediment control plans for the project would be certified by the Burlington and Ocean County Soil Conservation Districts. In addition, authorization to discharge stormwater under the NJDEP general permit for construction activities would be attained. Therefore, minimal impacts to earth resources would occur.

No Action Alternative.

Under the No Action Alternative, the project would not occur and there would be no effects on earth resources, including geology, soils, and topography.

4.10 OTHER NEPA CONSIDERATIONS

4.10.1 Unavoidable Adverse Effects

This EA identifies any unavoidable adverse impacts that would be required to implement the Proposed Action and the significance of the potential impacts to resources and issues.

Unavoidable short-term adverse impacts associated with implementing the Proposed Action would include temporary erosion and sedimentation from soils disturbance, a temporary increase in fugitive dust and air emissions during construction, intermittent noise, minor alterations to local traffic, and short-duration, limited interruptions to JB MDL's electrical supply. Most of these effects would be minor and confined to the immediate area of the project work. Use of environmental controls and implementing controls required in permits and approvals obtained would minimize the potential impacts.

4.10.2 Relationship of Short-Term Uses and Long-Term Productivity

The relationship between short-term uses and enhancement of long-term productivity from implementation of the Proposed Action is evaluated from the standpoint of short-term effects and long-term effects. Short-term effects would be effects associated with the construction activities. The long-term enhancement of productivity would be the effects associated with increased energy resiliency and security at JB MDL, lowered GHG emissions and impact on climate change, and reduced occurrence of non-productive periods due to equipment malfunctions or off-line time for repairs at individual buildings.

4.10.3 Irreversible and Irretrievable Commitments of Resources

This EA identifies any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action if implemented. An irreversible effect results from the use or destruction of resources (e.g., energy) that cannot be replaced within a reasonable time. An irretrievable effect results from loss of resources (e.g., endangered species) that cannot be restored as a result of the Proposed Action. The irreversible commitments of resources that would occur primarily would include building materials and supplies and energy resources used during construction, all of which would be unavailable for use elsewhere once committed to this

project. No irretrievable losses of resources would be anticipated from implementing the Proposed Action.

4.11 CUMULATIVE EFFECTS

This EA also considers cumulative effects in accordance with the requirements of the CEQ's implementing regulations for NEPA, as updated July 16, 2020 (CEQ 2020). Actions announced for the ROI for this project that could occur during the same time period as the Proposed Action are listed in **Table 4-2**.

Project	Location	Status
Water Line Replacement	Across JB MDL.	In progress.
Wellhouse #5	Lakehurst.	In progress.
Lakehurst Commercial Vehicle Gate	Lakehurst.	EA near completion.
Munitions Storage Area	Rebuild of munitions storage area on McGuire.	EA in progress.
Hot Cargo Loading Area	Rebuild of pad on flightline on McGuire.	EA in progress.
Lakehurst Airfield Vegetation	Lakehurst.	EA in progress (INRMP project).
Tactical Training Area 10C, D, E	Dix.	Description of Proposed Action and Alternatives complete.
Eight Bed Confinement Facility	Construct building on McGuire.	AF813 in progress.
Construct Snow Barn	Lakehurst.	Planned in Fiscal Year 2022.
144 Bed Dormitory	Construct building on Dix.	Planned in Fiscal Year 2022.
Area Development B5651 and 5652	Paving parking lots, storm drains on Dix.	Planned in Fiscal Year 2022.
MSBL 16 1006 Repair Underground Distribution System	Lakehurst.	In design.
Jet Car Track Site (ALRE Support)	Lakehurst.	In design.
Range 6 Renovations	Dix.	In design.
Site LF003 Landfill Soil Cap	McGuire.	In design.
Army NG Readiness Center	Construct building on Lakehurst.	In design.

Table 4-2. Announced Actions

For this EA analysis, these announced actions are addressed from a cumulative perspective and are analyzed in this section. These announced future actions would be evaluated under separate NEPA actions conducted by the appropriate involved federal agency. Based on the best available information for these proposals by others, the USAF cumulative impact analysis does consider them.

Descriptions of the cumulative effects for the resource areas follow:

Air Quality

Construction emissions would combine with those from other projects in the area; however, emissions associated with the project would represent a negligible fraction of total emissions in the region, so cumulative effects would be minor.

Under the No Action Alternative, the Proposed Action would not be implemented, and there would be no changes in air emissions or air quality when compare to existing conditions. The beneficial effects from the upgrade in energy management throughout the base (e.g., installation of solar arrays) would not be realized.

Water Resources

The Proposed Action would have a minor short-term adverse effect on water resources from soil disturbed during construction activities potentially entering surface waters. All construction would be done in accordance with the two County-approved erosion and sedimentation control measures in the project-specific SWPPP, which would minimize impacts to surface water and wetlands. In addition, authorization to discharge stormwater under the NJDEP general permit for construction activities would be attained. Other projects in the region may result in minor impacts to water resources; however, the project's contribution to this cumulative effect would be negligible.

Under the No Action Alternative, the project would not occur and there would be no effects on water resources. Therefore, the No Action Alternative would not contribute to cumulative effects.

Safety and Occupational Health

The Proposed Action would have a minor adverse effect to safety and occupational health from short-term construction and long-term operational activities. Compliance with site-specific health and safety plans would ensure work would be conducted in a way that is protective of workers, the public, and the environment. Health and safety plans would be prepared in accordance with DoD and Air Force regulations and would comply with OSHA standards. Other projects in the region would likely result in minor impacts to safety and occupational health; however, the project's contribution to this cumulative effect would be negligible.

Under the No Action Alternative, the project would not occur and there would be no effects on safety and occupational health. Therefore, the No Action Alternative would not contribute to cumulative effects.

Hazardous Materials and Wastes

Although the Proposed Action would use hazardous materials and generate hazardous waste, these activities are highly regulated and compliance with applicable laws would ensure proper management and disposal of these materials and prompt response to any spills or releases that did occur. Other projects in the region would likely also use hazardous materials and generate hazardous waste; however, the project's contribution to this cumulative effect would be negligible.

Under the No Action Alternative, the project would not occur and there would be no effect on hazardous materials and waste. Therefore, the No Action Alternative would not contribute to cumulative effects.

Infrastructure and Utilities

Other development projects in the area would be expected to increase demand on utilities and infrastructure. Although implementing the upgrades under this Proposed Action could cause short-term adverse impacts due to disruptions from construction activities, long-term cumulative impacts on infrastructure and utilities would be beneficial as infrastructure would be upgraded to provide better service and functionally.

Under the No Action Alternative, the project would not occur and there would be no effects on infrastructure and utilities. Therefore, the No Action Alternative would not contribute to cumulative effects.

Biological / Natural Resources

The Proposed Action would have a minor adverse effect from limited vegetation and habitat removal. Compliance with regulations and implementation of all required measures would ensure that impacts to biological resources are avoided or minimized to the maximum extent. Other projects in the region would likely result in a loss of vegetation and habitat and displacement of wildlife; however, the project's contribution to this cumulative effect would be negligible.

Under the No Action Alternative, the project would not occur and there would be no effects on biological resources. Therefore, the No Action Alternative would not contribute to cumulative effects.

Cultural Resources Impacts

The areas where ground disturbance would be required do not contain documented archaeological resources and are unlikely to contain undocumented archaeological resources, so no effects are anticipated. Other project features would not require any ground disturbance and, therefore, would not affect any archaeological resources. None of the roof-mounted solar PV panels would be installed on historic buildings and, therefore, would not affect any historic resources. Other projects in the area could uncover buried archaeological resources or alter historic buildings; however, the project's contribution to this cumulative effect would be negligible.

Under the No Action Alternative, the project would not occur and there would be no effects on cultural resources. Therefore, the No Action Alternative would not contribute to cumulative effects.

Earth Resources

The Proposed Action and other projects in the region would involve soil disturbance during construction and may change stormwater runoff patterns and the potential for erosion. However, once each project is constructed and/or installed, there would be no further disturbance of the sites and soils would be stabilized. Therefore, there would be no cumulative effect on earth resources.

Under the No Action Alternative, the project would not occur and there would be no effects on earth resources. Therefore, the No Action Alternative would not contribute to cumulative effects.

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5. LIST OF PREPARERS

This EA has been prepared under the direction of the Air Force Civil Engineer Center, USAF, and JB MDL.

The individuals that contributed to the preparation of this EA are listed in **Table 5-1**.

Name/Organization	Education	Resource Area	Years of Experience
Michelle Bates, Tetra Tech	MESM, Environmental Science and Management, University of California, Santa Barbara BS, Biology, Pepperdine University	Project Manager, senior NEPA review, quality control	21
Daniel Berg, Tetra Tech	BS, Environmental Studies, University of California, Santa Barbara	Water Resources, Biological/Natural Resources, Earth Resources	6
Jonas Berge, Tetra Tech	BS, Chemistry, University of Wisconsin BS, Conservation Biology, University of Wisconsin	Air Quality	12
Michelle Cannella, Tetra Tech	BS, Mineral Economics, Penn State University	Airspace, Environmental Justice, Land Use, Noise, and Socioeconomics	22
Dawn Fitzpatrick, Tetra Tech	MEd, Educational Technology and Management, University of West Florida BA, Art History, Marymount College, Fordham University	Quality Assurance	13
Jennifer Jarvis, Tetra Tech	BS, Environmental Resource Management	Geographic information system (GIS) / Figures	22
Mary McKinnon, Tetra Tech	BS, Environmental Earth Science, Stanford University	Air Quality, Cultural Resources	32
Amy Noddings, Tetra Tech	MESM, Environmental Science and Management, University of California, Santa Barbara BS, Environmental Science, University of Notre Dame	Safety and Occupational Health, quality control	12
Sam Pett, Tetra Tech	MS, Environmental Policy, University of Massachusetts/Boston BS, Wildlife Biology, Michigan State University	Infrastructure and Utilities	25

 Table 5-1. List of Preparers
Name/Organization	Education	Resource Area	Years of Experience
Sean Rose, Tetra Tech	BA, Urban Affairs and Planning, Virginia Polytechnic Institute and State University MPS, Real Estate Development, Georgetown University	Hazardous Materials and Waste	10

Table 5-1. List of Preparers

6. PERSONS AND AGENCIES CONSULTED/COORDINATED

The Persons and Agencies that were contacted in preparation of this EA are listed in **Table 6-1**.

Table 6-1. Persons and Agencies Consulted/Coordinated

Federal Agencies		
Mr. Ron Popowski	United States Environmental Protection Agency	
U.S. Fish and Wildlife Service	Environmental Review Section	
New Jersev Field Office, Ecological Services	Chief of Environmental Review	
4 Fast Jimmie Leeds Road Unit 4	EPA Region 2	
Galloway NJ 08205	290 Broadway	
	New York NY 10007-1866	
State Agencies		
New Jersey Department of Environmental	Ms. Megan Brunatti	
Protection	New Jersey Department of Environmental	
Division of Fish, Game, and Wildlife	Protection	
Endangered and Nongame Species Program	Office of Permit Coordination and Environmental	
Mail Code 501-03	Review	
P.O. Box 420	401 East State Street	
Trenton NJ 08625-0420	Mail Code 401-07.	
	$P \cap Box 420$	
	Trenton, NJ 08625	
Dr. Katherine Marcopul	Ms. Sara Cureton	
New Jersey Department of Environmental	New Jersey Department of State	
Protection	Historical Commission	
Historic Preservation Office	225 West State Street	
Mail Code 501-04B	$P \cap Box 305$	
$P \cap Box 420$	Trenton NL08625	
Trenton N L 08625-0420		
Ms. Nancy Wittenberg		
New Jersey Pinelands Commission		
$P \cap Box 359$		
15 Springfield Road		
New Lisbon NJ 08064		
Manchester Township Environmental Commission	Ms. Christine Raabe	
1 Colonial Drive	Ocean County Soil and Water Conservation	
Manchester, NJ 08759	District	
	714 Lacey Road	
	Forked River, NJ 08731	
Mr. Anthony Agliata	Planning Board of Burlington County	
Ocean County Department of Planning	Engineering Complex	
129 Hooper Avenue	1900 Briggs Road	
P.O. Box 2191	Mt. Laurel, NJ 08054	
Toms River, NJ 08754	,	
Burlington County Soil Conservation District		
1971 Jacksonville-Jobstown Road		
Columbus, NJ 08022		
Tribal Agencies		
Ms. Erin Paden	Dr. Brice Obermeyer	
Delaware Nation	Delaware Tribe of Indians	
P.O. Box 825	1200 Commercial St.	
Anadarko, OK 73005	Emporia, KS 66801	

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7. REFERENCES

- Air Force (United States Air Force). 2008. Environmental Assessment of Installation Development at McGuire Air Force Base.
- Air Force (United States Air Force). 2017. 2017-2036 Air Force Energy Flight Plan. Prepared by the Office of the Assistant Secretary of the Air Force, Installations, Environment, and Energy, Washington, DC.
- Air Force (United States Air Force). 2019. Integrated Cultural Resources Management Plan. Joint Base McGuire-Dix-Lakehurst.
- Air Force (United States Air Force). 2020. Draft Integrated Natural Resources Management Plan. Joint Base McGuire-Dix-Lakehurst.
- Ameresco. 2020. *Preliminary Assessment Joint Base McGuire-Dix-Lakehurst Energy Savings Performance Contract*. Submitted by Ameresco, Washington, DC. Submitted to Joint Base McGuire-Dix-Lakehurst, New Jersey. April 10.
- Baystate Environmental Consultants. 1994. *Cultural Resources Survey for Naval Air Engineering Station Lakehurst, New Jersey*. Prepared for Northern Division, Naval Facilities Command, Lester Pennsylvania. October 31.
- Brunson, C. 2020. Joint Base McGuire-Dix-Lakehurst, New Jersey.
- CEQ (Council on Environmental Quality). 1997. *Environmental Justice: Guidance Under the National Environmental Policy Act*. Council on Environmental Quality, Executive Office of the President, Washington, DC.
- CEQ (Council on Environmental Quality). 2020. Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act. Council on Environmental Quality, Executive Office of the President, Washington, DC. July 16.
- DOE (US Department of Energy). 2016. *Federal Progress Toward Energy/Sustainability Goals*. Accessed August 2018. https://www.energy.gov/sites/prod/files/2016/09/f33/fy15_facility_sustainability_goals.pdf.
- Dynamic Earth. 2020a. *Report of Geotechnical Investigation and Stormwater Basin Area Report*. Proposed Ground Mounted Solar Power (PV) Systems. McGuire Air Force Base, North Run, Borough of Wrightstown, Burlington County, New Jersey. Prepared for Ameresco, Inc. October 22.
- Dynamic Earth. 2020b. *Report of Geotechnical Investigation and Stormwater Basin Area Report*. Proposed Ground Mounted Solar Power (PV) Systems. McGuire Air Force Base, Back 9 East, Borough of Wrightstown, Burlington County, New Jersey. Prepared for Ameresco, Inc. October 27.
- Dynamic Earth. 2020c. *Report of Geotechnical Investigation and Stormwater Basin Area Report*. Proposed Ground Mounted Solar Power (PV) Systems. Joint Base MDL, Borough of Lakehurst, Ocean County, New Jersey. Prepared for Ameresco, Inc. December 7.

- EHS (EHS Technologies). 2012. Environmental Assessment. Radio Receiving and Transmission Site (RRATS) at Joint Base McGuire-Dix-Lakehurst, New Jersey. Prepared for Joint Base McGuire-Dix-Lakehurst, Fort Dix, NJ. Prepared by EHS Technologies, Moorestown, NJ.
- EHS (EHS Technologies). 2012. *Final Environmental Assessment. Solar Panel Systems at Joint Base McGuire-Dix-Lakehurst, New Jersey.* Prepared for Joint Base McGuire-Dix-Lakehurst, Fort Dix, NJ. Prepared by EHS Technologies, Moorestown, NJ. March.
- EHS (EHS Technologies). 2013. *Final Environmental Assessment. Central Issue Facility at Joint Base McGuire-Dix-Lakehurst, New Jersey*. Prepared for Joint Base McGuire-Dix-Lakehurst, Fort Dix, NJ. Prepared by EHS Technologies, Moorestown, NJ.
- EPA (U.S. Environmental Protection Agency). 2019. Greenhouse Gas Equivalencies Calculator. Accessed May 2019. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.
- EPA (U.S. Environmental Protection Agency). 2012. eGRID2012 Version 1.0 Year 2007 Summary Tables.
- FAA (Federal Aviation Administration). 2018. Technical Guidance for Evaluating Selected Solar Technologies on Airports. Federal Aviation Administration, Office of Airports, Office of Airport Planning and Programming, Airport Planning and Environmental Division, Washington, DC.
- FedCenter. 2018. *Climate Change Adaptation and Federal Facilities*. Accessed August 2018. https://www.fedcenter.gov/progams/climate/.
- Fthenakis, V. M. 2002. Could CdTe PV Modules Pollute the Environment? Upton, NY: Brookhaven National Laboratory.
- Herbert, B., and R. Grumet. 1993. Cultural Resource Assessment and Management Recommendation Report, McGuire Air Force Base, Burlington and Camden Counties, New Jersey. Prepared by Cultural Resources Planning Branch, Mid-Atlantic Regional Office, National Park Service, Philadelphia, Pennsylvania. Prepared for Department of the Air Force, Headquarters Mobility Command, Scott Air Force Base, Illinois. April.
- JB MDL (Joint Base McGuire-Dix-Lakehurst). 2007. *Final Wetland Delineation Report for the Area South of Wrightstown-Cookstown Road*. McGuire Air Force Base, New Jersey. April.
- JB MDL (Joint Base McGuire-Dix-Lakehurst) GIS. 2020. Installation GIS Data. Geodatabase. Joint Base McGuire-Dix-Lakehurst, NJ.
- Louis Berger & Associates and Heritage Studies, Inc. 1985. *Cultural Resource Survey and Evaluation, U.S. Army Training Center and Fort Dix. Volume I.* Prepared for Office of Cultural Programs, Mid-Atlantic Region, National Park Service. January.
- Mak, King. 2020. McGuire Installation Support Section, Air Force Civil Engineer Center, New Jersey.
- Moeller et al 1994. *An Archaeological and Historic Resources Inventory of McGuire Air Force Base, New Jersey.* Prepared by Argonne National Laboratory, Argonne, Illinois. Prepared for Headquarters/Air Mobility Command, United State Air Force. April.

- Natural Resources Conservation Service (NRCS). 2020. Web Soil Survey. United States Department of Agriculture. Accessed on December 7, 2020.
- Pinelands Commission. 2020. The Pinelands National Reserve. Accessed December 2020. https://www.nj.gov/pinelands/reserve/.
- Proven Energy. 2019. Do solar system panels make noise? Accessed December 2020. https://www.provenenergy.com.au/ do-solar-panels-makenoise/#:~:text=Inverters%20may%20make%20a%20quiet,that%20the%20inverter%20need s%20maintenance.
- U.S. Army Corps of Engineers (USACE). 2019. Pre-Design Investigation, Phase II, Operable Unit 1 (LF003 and ST007). Joint Base McGuire-Dix-Lakehurst, New Jersey.
- U.S. Census Bureau. 2020. *QuickFacts*. Accessed December 2020. https://www.census.gov/quickfacts/fact/table/burlingtoncountynewjersey,oceancountynewjer sey,NJ,US/PST045219.
- U.S. Fish and Wildlife Service (USFWS). 2015. Northern Long-Eared Bat (*Myotis septentrionalis*). Fact Sheet. April.

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Appendix A

Interagency/Intergovernmental Coordination

and Public Participation

Example Agency Scoping Letter



DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND JOINT BASE MCGUIRE-DIX-LAKEHURST

Carl Champion Installation Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Ave Joint Base McGuire-Dix-Lakehurst, NJ 08641

Planning Board of Burlington County Engineering Complex 1900 Briggs Road Mt. Laurel, NJ 08054

Attn: Planning Board of Burlington County

The U.S. Air Force (USAF) is in the process of preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with the implementation of energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL) through an Energy Savings Performance Contract (ESPC) (Proposed Action). The EA will be prepared in compliance with the National Environmental Policy Act (NEPA), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA, and the USAF's Environmental Impact Analysis Process. The EA will consider the potential consequences to human health and the natural environment. One action alternative has been identified. The No Action Alternative will be carried forward in accordance with the requirements of the CEQ's implementing regulations for NEPA. The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

The purpose of the Proposed Action is to increase JB MDL's energy security, resiliency, and conservation. The Proposed Action is needed to comply with federal energy directives such as the Energy Policy Act of 2005; Executive Order 13834, *Efficient Federal Operations*; and Department of Defense Instruction 4170.11, *Installation Energy Management*. It is also needed to support the goals of the 2017-2036 Air Force Energy Flight Plan, which are to improve resiliency, optimize demand, and assure supply.

The proposed project is expected to commence in 2021 and be completed in 3 years. The ECMs proposed on McGuire Air Force Base (AFB) include the following: two ground-mounted solar PV arrays, one at North Run (approximately 25 acres) and one at Back Nine (approximately 26 acres); carport solar PV panels on one existing carport and one constructed carport; roof-mounted solar PV panels on approximately 20-30 buildings; and, one microgrid control system (MCS), one battery energy storage system (BESS), and two natural gas generators near existing substations. The ECMs proposed on Fort Dix include roof-mounted solar PV panels on approximately 10 to 15 buildings. The ECMs proposed on Naval Air Engineering Station (NAES) Lakehurst include the following: one ground-mounted solar PV array on approximately 12 acres; roof-mounted solar PV panels on approximately 10 to 15

buildings; and, one MCS, one BESS, and one backup stand-by generator near the existing substation. The attached Description of the Proposed Action and Alternatives provides more details on the Proposed Action.

If you have information regarding potential impacts of the Proposed Action on the natural environment or other environmental aspects of which we are unaware, we would appreciate receiving such information for inclusion and consideration during the NEPA compliance process. We look forward to and welcome your participation in this process. Please respond within 30 days of receipt of this letter to ensure your concerns are adequately addressed in the EA.

Please send your written responses to me at <u>carl.champion.1@us.af.mil</u> and I will coordinate responses with our environmental compliance program staff. Thank you in advance for your participation.

Sincerely,

CHAMPION.CARL Digitally signed by CHAMPION.CARLEJR.1186038602 Date: 2021.01.06 22:00:28 -05'00'

Carl Champion Installation Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office

Attachments:

1) Description of the Proposed Action and Alternatives

Tribal Letters



DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND JOINT BASE MCGUIRE-DIX-LAKEHURST

Carl Champion Installation Tribal Liaison Officer Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Ave Joint Base McGuire-Dix-Lakehurst, NJ 08641

Delaware Nation P.O. Box 825 Anadarko, OK 73005 Attn: Erin Paden, Director of Cultural Resources & Section 106

Dear Erin,

The U.S. Air Force (USAF) is in the process of preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with the implementation of energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL) through an Energy Savings Performance Contract (ESPC) (Proposed Action). The EA will be prepared in compliance with the National Environmental Policy Act (NEPA), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA, and the USAF's Environmental Impact Analysis Process. The EA will consider the potential consequences to human health and the natural environment. One action alternative has been identified. The No Action Alternative will be carried forward in accordance with the requirements of the CEQ's implementing regulations for NEPA. The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

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The proposed project is expected to commence in 2021 and be completed in 3 years. The ECMs proposed on McGuire Air Force Base (AFB) include the following: two ground-mounted solar PV arrays, one at North Run (approximately 25 acres) and one at Back Nine (approximately 26 acres); carport solar PV panels on one existing carport and one constructed carport; roof-mounted solar PV panels on approximately 20-30 buildings; and, one microgrid control system (MCS), one battery energy storage system (BESS), and two natural gas generators near existing substations. The ECMs proposed on Fort Dix include roof-mounted solar PV panels on approximately 10 to 15 buildings. The ECMs proposed on Naval Air

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Pursuant to 36 CFR § 800.3, USAF is seeking your input on this project so that you may have an opportunity to comment on cultural resources and/or other concerns regarding the Proposed Action and the proposed archaeological and architectural Areas of Potential Effect (Attachment 2). Your feedback is important and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation.

Please send your written responses to me at <u>carl.champion.1@us.af.mil</u> and I will coordinate responses with our environmental compliance program staff. Thank you in advance for your participation.

Sincerely,

CHAMPION.CARL E.JR.1186038602 2 Date: 2021.01.06 22:05:29 -05'00'

Carl Champion Installation Tribal Liaison Officer Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office

Attachments:

- 1) Description of the Proposed Action and Alternatives
- 2) Proposed Areas of Potential Effects



Attachment 2: Proposed Areas of Potential Effect



LEGEND – Installation Boundary

North Run and Back Nine Sites



Lakehurst Site

Figure 2-3



DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND JOINT BASE MCGUIRE-DIX-LAKEHURST

Carl Champion Installation Tribal Liaison Officer Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Ave Joint Base McGuire-Dix-Lakehurst, NJ 08641

Delaware Tribe of Indians Director, Delaware Tribe Historic Preservation Office Roosevelt Hall, Room 212 1200 Commercial Street Emporia, KS 66801 Attn: Dr. Brice Obermeyer, Tribal Historic Preservation Officer

Dear Dr. Obermeyer,

The U.S. Air Force (USAF) is in the process of preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with the implementation of energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL) through an Energy Savings Performance Contract (ESPC) (Proposed Action). The EA will be prepared in compliance with the National Environmental Policy Act (NEPA), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA, and the USAF's Environmental Impact Analysis Process. The EA will consider the potential consequences to human health and the natural environment. One action alternative has been identified. The No Action Alternative will be carried forward in accordance with the requirements of the CEQ's implementing regulations for NEPA. The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

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Please send your written responses to me at <u>carl.champion.1@us.af.mil</u> and I will coordinate responses with our environmental compliance program staff. Thank you in advance for your participation.

Sincerely,

CHAMPION.CARL Digitally signed by CHAMPION.CARLEJR.1186038600 .E.JR.1186038602 2 Date: 2021.01.06 22:07:03 -05'00'

Carl Champion Installation Tribal Liaison Officer Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office

Attachments:

- 1) Description of the Proposed Action and Alternatives
- 2) Proposed Areas of Potential Effects



Attachment 2: Proposed Areas of Potential Effect



LEGEND – Installation Boundary

North Run and Back Nine Sites



Lakehurst Site

Figure 2-3

Historical Commission Letter



Dr. Sharon D. White JB MDL Cultural Resources Manager 2404 Vandenberg Avenue Joint Base MDL, NJ 08641

Ms. Sara Cureton New Jersey Department of State Historical Commission 225 West State Street P.O. Box 305 Trenton, NJ 08625

Dear Ms. Cureton,

The U.S. Air Force (USAF) is in the process of preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with the implementation of energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL) through an Energy Savings Performance Contract (ESPC) (Proposed Action). The EA will be prepared in compliance with the National Environmental Policy Act (NEPA), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA, and the USAF's Environmental Impact Analysis Process. The EA will consider the potential consequences to human health and the natural environment. One action alternative has been identified. The No Action Alternative will be carried forward in accordance with the requirements of the CEQ's implementing regulations for NEPA. The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

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Pursuant to 36 CFR § 800.3, USAF is seeking your input on this project so that you may have an opportunity to comment on cultural resources and/or other concerns regarding the Proposed Action and the proposed archaeological and architectural Areas of Potential Effect (Attachment 2). Your feedback is important and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation.

Sincerely, WHITE.SHARON. Digitally signed by WHITE.SHARON.D.1567708388 Date: 2020.12.18 11:58:53 -05'00'

DR. SHARON D. WHITE, USAF JB MDL, Cultural Resources Manager

Two (2) Attachments:

- 1. Description of the Proposed Action and Alternatives
- 2. Proposed Areas of Potential Effect



Attachment 2: Proposed Areas of Potential Effect



LEGEND - - Installation Boundary

North Run and Back Nine Sites



Lakehurst Site

Figure 2-3

SHPO Letter



Dr. Sharon D. White JB MDL Cultural Resources Manager 2404 Vandenberg Avenue Joint Base MDL, NJ 08641

Dr.. Katherine Marcopul New Jersey Department of Environmental Protection Historic Preservation Office P.O. Box 420 Trenton, NJ 08625-0420

Dear Dr. Marcopul,

The U.S. Air Force (USAF) is in the process of preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with the implementation of energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL) through an Energy Savings Performance Contract (ESPC) (Proposed Action). The EA will be prepared in compliance with the National Environmental Policy Act (NEPA), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA, and the USAF's Environmental Impact Analysis Process. The EA will consider the potential consequences to human health and the natural environment. One action alternative has been identified. The No Action Alternative will be carried forward in accordance with the requirements of the CEQ's implementing regulations for NEPA. The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

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Pursuant to Section 106 of the National Historic Preservation Act and in accordance with 36 Code of Federal Regulations Part 800 (Protection of Historic Properties), USAF would like to initiate consultation concerning the Proposed Action and the proposed archaeological and architectural Areas of Potential Effect (Attachment 2) to allow you the opportunity to provide comments, concerns, and/or suggestions you might have. That information will be used to determine whether there are any cultural resources present that are eligible for listing on the National Register of Historic Places, and if so, whether the Proposed Action would cause adverse effects that must be addressed. Your feedback is important and a response within 30 days of receipt of this letter would enable us to ensure that your concerns are fully considered in our evaluation. Thank you in advance for your participation.

Sincerely, WHITE.SHARON Digitally signed by WHITE.SHARON.D.1567708388 .D.1567708388 Date: 2020.12.18 11:56:25 -05'00' DR. SHARON D. WHITE, USAF JB MDL, Cultural Resources Manager

Two (2) Attachments:

- 1. Description of the Proposed Action and Alternatives
- 2. Proposed Areas of Potential Effect



Attachment 2: Proposed Areas of Potential Effect



LEGEND - - Installation Boundary

North Run and Back Nine Sites



Lakehurst Site

Figure 2-3

Comments Received During the Scoping Period

JAMES RUSSELL, CHAIRMAN EARL F. SUTTON, JR., VICE CHAIRMAN JOSEPH H. VICARI, FREEHOLDER DIRECTOR GARY QUINN, FREEHOLDER JOHN N. ERNST, COUNTY ENGINEER JOSEPH BILOTTA DENNIS LIBERATORE ELAINE McCRYSTAL SCOTT K. TIRELLA JOHN P. KELLY, FREEHOLDER ALTERNATE MARK JEHNKE, ENGINEERING ALTERNATE ALAN W. AVERY, JR., ALTERNATE JOSEPH R. MARRA. ALTERNATE



OCEAN COUNTY PLANNING BOARD P O Box 2191 Toms River, New Jersey 08754-2191 Telephone (732) 929-2054 Fax (732) 244-8396 ANTHONY M. AGLIATA PLANNING DIRECTOR

JOHN C. SAHRADNIK COUNSEL

ROBIN L. FLORIO SECRETARY

January 11, 2021

Carl Champion Installation Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Ave Joint Base McGuire-Dix-Lakehurst, NJ 08641

Re: DOPAA for Energy Savings Performance at Joint Base McGuire-Dix-Lakehurst

Dear Mr. Champion,

Thank you for your letter containing the Description of Proposed Action and Alternatives for Energy Savings Performance (DOPAA) at Joint Base McGuire-Dix-Lakehurst (JB MDL). The County remains engaged in matters concerning the Joint Base, its operations, and quality of life issues for our service members.

The County supports the implementation of energy conservation measures for electrical power and energy savings at JB MDL. The projects discussed in the DOPAA will be a great benefit to the base, and would increase energy resiliency and the ability to prepare for, mitigate, and recover from potential energy disruptions.

Based on our review of the proposed action, we support the project and believe any environmental impacts would be minimal. Please keep us updated if there is anything that the County can do to assist with this or any other project, and do not hesitate to contact me at (732) 929-2054.

Sincerely

Mark A. C. Villinger Supervising Planner

MCV/vk



FINAL ENVIRONMENTAL ASSESSMENT



State of New Jersey

PHILIP D. MURPHY Governor

SHEILA Y. OLIVER Lt. Governor DEPARTMENT OF ENVIRONMENTAL PROTECTION Office of Permitting & Project Navigation Mail Code 401-07J P.O. Box 420 Trenton, New Jersey 08625-0420 www.nj.gov/dep/pcer SHAWN M. LATOURETTE Acting Commissioner

January 26, 2021

Mr. Carl Champion Installation Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Ave Joint Base McGuire-Dix-Lakehurst, NJ 08641

RE: NEPA Scoping Document USAF/Joint Base – Energy Conservation Measures (ECM)

Dear Mr. Champion,

On January 8, 2021, the New Jersey Department of Environmental Protection's (NJDEP) Office of Permitting and Project Navigation (OPPN) received a NEPA Scoping Document for the U.S. Air Force's (USAF) proposed solar panels and other energy conservation measures within Manchester Twp, Ocean County and New Hanover Twp, Burlington County of Joint Base McGuire-Dix-Lakehurst.

In response to your request for guidance on whether the proposal will have any adverse impacts to land and water resources, historical or cultural resources, threatened and endangered species and migratory birds, the Department offers the following comments for your consideration.

Land Resource Protection Division

Freshwater Wetlands Rules

Any proposed activities within areas regulated by the Freshwater Wetland Protection Act rules will require a permit authorization from the Division of Land Resource Protection (DLRP), if the New Jersey Pineland Commission declines to take jurisdiction over the freshwater wetlands. In addition, a certificate of filing to the Commission may be required as a part of any application submitted to DLRP.

Flood Hazard Area Rules

Impacts to regulated areas under the jurisdiction of the Flood Hazard Area Control Act (i.e. streams, flood hazard areas and/or riparian zones) require a permit authorization from DLRP. DLRP remains the responsible entity for implementing this set of regulation within the Pinelands.

Coastal Zone Management Rules

Impacts to areas regulated by the Waterfront Development Act and/or CAFRA shall require a Federal Consistency. DLRP encourages submitting a Coastal Jurisdiction Determination to obtain official documentation that the project activities do not require coastal permits.

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USAF/Joint Base Solar NEPA Scoping Response Page 2 of 5

If you have any questions, please contact Brett Kosowski at <u>Brett.Kosowski@dep.nj.gov</u> for FWW or Keith Stampfel at <u>Keith.Stampfel@dep.nj.gov</u> for FHA. They can also be reached at (609) 633-2289.

Division of Fish & Wildlife (NJDFW)

New Jersey Division of Fish & Wildlife (DFW) recommends that any ground clearing or site preparation for ground mounted solar be done outside the nesting season (April 1 to August 31), to minimize impact to ground nesting birds.

The DFW relies on the Integrated Natural Resources Management Plan (INRMP) to protect resources under the purview of DFW. The comments and recommendations of the DFW's Office of Environmental Review (OER) are subject to change, if any additional environmental issues or concerns that may negatively affect resources under the purview of the DFW are discovered during pre-construction surveys or the construction phase. The OER should be contacted upon discovery at (609) 960-4502 or (609) 292-9451.

If you have any questions, please contact Kelly Davis of the Division of Fish & Wildlife at (908) 236-2118 or Kelly.Davis@dep.nj.gov

State Historic Preservation Office

Based on the documentation submitted, the proposed project will require consultation with the SHPO, pursuant to Section 106 of the National Historic Preservation Act, for the identification, evaluation, and treatment of historic properties within the project's area of potential effects. The United State Department of the Air Force (USAF) has initiated consultation with our office. As a result, the SHPO looks forward to further consultation with the USAF, pursuant to their obligations under Section 106 of the National Historic Preservation Act of 1966, as amended, and it's implementing regulations, 36 CFR §800.

If you have any questions, please contact Jesse West-Rosenthal of the State Historic Preservation Office at (609) 984-6019 or Jesse.West-Rosenthal@dep.nj.gov

Air Quality Bureau of Evaluation and Planning

Joint Base McGuire-Dix-Lakehurst, specifically McGuire and Lakehurst, have emission budgets for VOCs and NOx that were established under the Federal General Conformity regulation in order to ensure that any increase in activity at McGuire or Lakehurst conform to the State Implementation Plan (SIP). The emission budgets for McGuire and Lakehurst can be found in the 1997 8-Hour Ozone Attainment Demonstration SIP at https://www.nj.gov/dep/baqp/8hrsip/Final_CompleteSIP.pdf.

If the emissions associated with this project and the proposed activity are not accounted for in the established emission budgets, then a General Conformity Applicability Analysis and possibly a Conformity Determination will be required for this project in accordance with the USEPA's Federal General Conformity regulation (40 CFR, part 93, Subpart B, Determining Conformity of General Federal Actions to State or Federal Implementation Plans). Fort Dix does not have an emission budget established, so the activity occurring at Fort Dix should be addressed and evaluated separately from the activity occurring at McGuire and Lakehurst.

If you have any questions, please contact Connor Milligan of the Division of Air Quality, Bureau of Evaluation and Planning at (609) 292-9906 or <u>Connor.Milligan@dep.nj.gov</u>

Air Quality Permitting

In general, no person shall cause, suffer, allow, or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution as defined in N.J.A.C. 7:27-5.

USAF/Joint Base Solar NEPA Scoping Response Page 3 of 5

Air permitting rules are found at N.J.A.C. 7:27-8 for minor facilities and N.J.A.C. 7:27-22 for major facilities. Based on Table 2-1 in the Environmental Assessment, there will be:

- Two new 2-MW generators at McGuire. If used for an emergency, a General Permit may be applicable (must meet all pre-determined requirements in the GP).
- One new 2-MW "stand-by" generator at NAES. If used for an emergency, a General Permit may be applicable (must meet all pre-determined requirements in the GP).
- Boilers, Chillers, Air Handling Units, Air Conditioning Packaged Units please refer to N.J.A.C. 7:27-8 and N.J.A.C. 7:27-22 to determine if an authorization is required.
- Any other sources of air emissions as listed in N.J.A.C. 7:27-8/N.J.A.C. 7:27-22 may require permits.

If you have any questions, please contact Danny Wong of Air Permitting at 609-984-2608 or <u>Danny.Wong@dep.nj.gov</u>

Bureau of Mobile Sources

Diesel exhaust contributes the highest cancer risk of all air toxics in New Jersey and is a major source of NOx within the state. Therefore, NJDEP recommends that construction projects involving non-road diesel construction equipment operating in a small geographic area over an extended period of time implement the following measures to minimize the impact of diesel exhaust:

- All on-road vehicles and non-road construction equipment operating at, or visiting, the construction site shall comply with the three minute idling limit, pursuant to N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15. Consider purchasing "No Idling" signs to post at the site to remind contractors to comply with the idling limits. Signs are available for purchase from the Bureau of Mobile Sources at 609/292-7953 or <u>http://www.stopthesoot.org/sts-no-idle-sign.htm</u>.
- 2. All non-road diesel construction equipment greater than 100 horsepower used on the project for more than ten days should have engines that meet the USEPA Tier 4 non-road emission standards, or the best available emission control technology that is technologically feasible for that application and is verified by the USEPA or the CARB as a diesel emission control strategy for reducing particulate matter and/or NOx emissions.
- 3. All on-road diesel vehicles used to haul materials or traveling to and from the construction site should use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors such as hospitals, schools, daycare facilities, senior citizen housing, and convalescent facilities.

If you have any questions, please contact Kris Dahl of the Bureau of Mobile Sources at (609) 692-1122 or Kris.Dahl@dep.nj.gov.

Bureau of Water Allocation

Most of the proposed actions fall outside the purview of the Bureau of Water Allocation and Well Permitting. The only element that may require some form of authorization from the Bureau would be the installation of any ground anchors or supports for the proposed solar arrays. The submitted documentation stated that minimal ground disturbance would occur and, although unlikely, some form of construction related dewatering could be required. If dewatering is necessary, construction dewatering guidance can be found at the following link: https://www.state.nj.us/dep/watersupply/pdf/dewater-crg.pdf

USAF/Joint Base Solar NEPA Scoping Response Page 4 of 5

If you have any questions, please contact Ken Komar of the Bureau of Water Allocation at (609) 292-8803 or Ken.Komar@dep.nj.gov

Bureau of Surface Water Permitting

If a surface water discharge becomes necessary during construction (i.e., dewatering), a NJPDES Discharge to Surface Water permit will be needed.

Provided that the discharge is not contaminated, the appropriate NJPDES discharge to surface water permit will be the B7 - Short Term De Minimis permit (see http://www.nj.gov/dep/dwq/gp-b7.htm). This is determined by running a pollutant scan as described in the application checklist where the data can be collected up to a year in advance of the discharge. However, if the discharge is contaminated and the analytical results demonstrate levels greater than the limitations specified in Attachment 1 of the B7 permit (see http://www.state.nj.us/dep/dwq/pdf/b7-deminimis-final-permit-5-20-15.pdf). The appropriate NJPDES discharge to surface water permit will be the BGR – General Remediation Cleanup permit (see http://www.nj.gov/dep/dwq/pdf/b7-deminimis-final-permit-5-20-15.pdf). The BGR permit can generally be processed in less than 30 days although a treatment works approval may be needed for any treatment.

If you have any questions, please contact Dwayne Kobesky of the Division of Water Quality, Bureau of Surface Water Permitting at (609) 777-0285 or <u>Dwayne.Kobesky@dep.nj.gov</u>

NJ Pinelands Commission

Sections of the outlined activities may require the completion of a formal application to the Pinelands Commission, whereas other sections of the activities may not be defined as development under N.J.A.C. 7:50-4.1.

The Pinelands Commission will issue a letter advising the applicant to schedule a pre-application meeting with the Commission to discuss the proposed development activities.

If you have any questions, please contact Ernest Deman of the Pinelands Commission at 609-894-7300 or Ernest.Deman@pinelands.nj.gov.

Site Remediation JBMDL

Please determine if the site has been part of a remediation activity and whether ground disturbance associated with the proposed project will potentially impact groundwater.

Additionally, the solar array must be added to any monitoring and maintenance plan that may be in place for the site.

If you have any questions, please contact Kristine Iazzetta of the Site Remediation Program for Lakehurst at (609) 777-0376 or <u>Kristine.iazzetta@dep.nj.gov</u>, or Haiyesh Shah for McGuire and Dix at 609-633-0718 or <u>Haiyesh.Shah@dep.nj.gov</u>

Bureau of Non-Point Pollution Control

Construction projects that disturb 1 acre or more of land, or less than 1 acre but are part of a larger common plan of development that is greater than 1 acre, are required to obtain coverage under the Stormwater construction general permit (5G3). Applicants must first obtain certification of their soil erosion and sediment control plan (251 plan) form their local soil conservation district office. Upon certification, the district office will provide the applicant with two codes process (SCD certification code and 251 identification code) for use in the DEPonline portal system application. Applicants must then become a registered user for the DEPonline system and complete the application for the Stormwater Construction General Authorization. Upon completion of the application the applicant will receive a temporary USAF/Joint Base Solar NEPA Scoping Response Page 5 of 5

authorization which can be used to start construction immediately, if necessary. Within 3-5 business days, the permittee contact identified in the application will receive an email including the application summary and final authorization.

For any additional stormwater questions, please contact Eleanor Krukowski at <u>Eleanor.Krukowski@dep.nj.gov</u> or (609) 633-7021.

Thank you for giving the New Jersey Department of Environmental Protection the opportunity to comment on the information provided for the proposed energy conservation measures at Joint Base McGuire-Dix-Lakehurst. If you have any additional questions, please do not hesitate to call me at (609) 292-3600.

Sincerely,

Megan Burnatte

Megan Brunatti, Director Office of Permitting & Project Navigation

FINAL ENVIRONMENTAL ASSESSMENT



MANCHESTER TOWNSHIP

1 Colonial Drive • Manchester, NJ 08759 • (732)657-8121 ENVIRONMENTAL COMMISSION

RORY WELLS CHAIRPERSON OF THE ENVIRONMENTAL COMMISSION Kenneth T. Palmer Mayor

February 1, 2021

Mr. Carl Champion

Installation Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Avenue Joint Base McGuire-Dix-Lakehurst, NJ 08641

RE: Proposed Implementation of Energy Conservation Measures Joint Base McGuire-Dix-Lakehurst

Dear Mr. Champion,

Thank you for your letter regarding the above-referenced report and the opportunity to provide input. After reviewing the report, the Manchester Township Environmental Commission has the following comments in regard to potential environmental impacts:

- 1. We recommend that the proposed emergency generators be fueled with natural gas, if available, as it is the cleanest fossil fuel energy source available.
- 2. We are not in favor of the removal of trees to accommodate solar panels and, in general, feel the best location for them is over existing buildings and parking lots.
- 3. Please provide site plans, if available.

The Commissioners would like to extend an invitation to you (or a representative) to attend one of their regular Zoom meetings to discuss this project in more detail. Their next meeting is scheduled for February 23, 2021 at 5:00 pm. Please contact Commission Secretary Lauren Frazee at 732-657-8121 Ext. 3107.

We look forward to hearing from you.

Kind regards,

Manchester Township Environmental Commission

WWW.MANCHESTERTWP.COM



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2 290 BROADWAY NEWYORK, NY 10007-1866

February 10, 2021

Carl Champion Installation Environmental Supervisor, 787th CES/CEIE Civil Engineering Squadron, Environmental Office 2404 Vandenberg Ave Joint Base McGuire-Dix-Lakehurst, NJ 08641

RE: Joint Base McGuire-Dix-Lakehurst - Energy Conservation Measures - Proposed Action

Dear Mr. Champion,

The U.S. Environmental Protection Agency (EPA) has received the Joint Base McGuire-Dix-Lakehurst (JB MDL) Description of the Proposed Action and Alternatives (DOPAA) regarding the implementation of energy conservation measures (ECMs). The document addresses JB MDL's plans to comply with and support federal energy directives and agency objectives to reduce energy consumption by installation of a microgrid control system (MCS), solar photovoltaic (PV) arrays and panels, a battery energy storage system (BESS), natural gas generators, replacement of heating, ventilation and air conditioning (HVAC) pneumatic controls, and supporting work to ensure the proper construction and operation to meet JB MDL's goals.

JB MDL has requested EPA's assistance in obtaining in any information or preliminary concerns regarding projects associated with the upcoming Environmental Assessment (EA). These may include potential effects to: physical, ecological, social, cultural, and archaeological resources.

EPA offers the following notes for consideration when performing the environmental analysis:

- According to NEPAssist, JB MDL has some significant portions of land designated as freshwater forested/shrub wetlands; potential impacts due to construction on these areas should be assessed.
- There is a superfund site on the National Priorities List (NPL) that is located on the McGuire Air Force Base; any proposed work should consider impacts on this site.
- Consult with New Jersey Department of Environmental Protection (NJDEP) to address any statewide standards, including but not limited to: tree removal & replacement, emissions standards, etc.

We would also like to take this opportunity to encourage JB MDL to consider the following when preparing the forthcoming EA based on the EPA Region 2 Greening Recommendations:

- The Federal Green Construction Guide for Specifiers includes helpful information for procuring green building products and construction/renovation services within the Federal government: http://www.wbdg.org/design/greenspec.php
- Promote markets for environmentally preferable products by referencing EPA's multiattribute Sustainable Marketplace: https://www.epa.gov/greenerproducts
- Implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and

Internet Address (URL) • http://www.epa.gov

off-road equipment used for transportation, soil movement, or other construction activities, including: Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.

• Many industrial and construction byproducts are available for use in road, building or infrastructure construction. Use of these materials can save money and reduce environmental impacts.

As a means to improve communications on NEPA-related matters with EPA Region 2, please direct all inquiries to me through email at <u>austin.mark@epa.gov</u> or (212) 637-3954. For questions related to this particular proposed action by JB MDL, please contact Arielle Benjamin at (212) 637-3650 or <u>benjamin.arielle@epa.gov</u>.

Thank you for the opportunity to assist JB MDL with their upcoming project. We look forward to working with your team throughout the NEPA review process and in the future.

Sincerely,

Mark Austin

Mark Austin, Team Leader Environmental Review Team Pott Sam

USFWS Scoping Letter Response

Tett, Sum	
From:	Popowski, Ron <ron_popowski@fws.gov> on behalf of NJFO Project Review, FW5</ron_popowski@fws.gov>
	<njfo_projectreview@fws.gov></njfo_projectreview@fws.gov>
Sent:	Monday, January 11, 2021 1:59 PM
To:	Pett, Sam
Subject:	Fw: [EXTERNAL] Joint Base McGuire-Dix-Lakehurst National Environmental Policy Act
	Scoping Materials
Attachments:	JBMDL Energy Project Scoping Letter for USFWS District Office-sgnd.pdf; Final
	DOPAA_JB MDL Energy Savings EA_Nov2020 clean.docx

Hi Sam,

This is in reference to your January 8, 2021 email below. In addition, we also received the same in hard copy via FED EX package today.

We are writing to provide you guidance on how to submit consultation package for our review. You can use our office's project screening procedures to submit consultation package for your project. Please review our <u>'step by step' project consultation procedures</u> we have on our office website.

Essentially, you determine your project area and draw it in IPaC to get a species list (step 1 and 2). The procedures say you can use the preliminary species list (the one with the not for consultation watermark), but Federal projects really need to take the extra step and request an official species list in IPaC (it should be shown as an option on IPaC somewhere after the preliminary species list is generated). The official species list looks almost identical to the preliminary species list (sans watermark), but the process of requesting an official species list will generate a official record of the project in the Service's database.

After you have your *official* species list, you go to step 3 on the guidance and use the NJFO's <u>project screening</u> <u>chart</u> to determine if Service review of the project is needed. You answer the questions in the chart columns *only for species that were included on your species list*. If project screening chart requires you to submit the consultation package, please send it to <u>NJFO ProjectReview@fws.gov</u> and attach all necessary documents, including official species list. Please also include your FEMA Point of Contact in cc. You will need follow this procedure for each project.

Let me know if you have any questions or difficulty going through this process.

Thanks,

Ron Popowski, Supervisor Endangered Species Program/Conservation Planning Assistance

U.S. Fish and Wildlife Service Department of the Interior - Region 1 North Atlantic - Appalachian New Jersey Field Office - Ecological Services 4 E. Jimmie Leeds Road, Suite 4
B. C. B. M. L. H.

Tribal Response

Bates, Michelle	
From:	Brice Obermeyer <bobermeyer@delawaretribe.org></bobermeyer@delawaretribe.org>
Sent:	Wednesday, January 13, 2021 11:02 AM
To:	sbachor@delawaretribe.org; Pett, Sam
Subject:	Fwd: Joint Base McGuire-Dix-Lakehurst National Environmental Policy Act Scoping
	Materials
Attachments:	Final DOPAA_JB MDL Energy Savings EA_Nov2020 clean.docx; JBMDL Energy Project
	Scoping Letter for Delaware Tribe of Indians-sgnd.pdf

Sam,

I am forwarding your project to Susan Bachor in our eastern Office. Susan handles all projects in the state of New Jersey and will be the point of contact for this and all future projects.

Brice Obermeyer Delaware Tribe Historic Preservation Office Roosevelt Hall, Rm 212 1 Kellog Drive Emporia, KS 66801

From: "Pett, Sam" <Sam.Pett@tetratech.com> To: "bobermeyer@delawaretribe.org" <bobermeyer@delawaretribe.org> Sent: 1/8/2021 11:46 AM Subject: Joint Base McGuire-Dix-Lakehurst National Environmental Policy Act Scoping Materials

Dear Mr. Obermeyer:

The U.S. Air Force is preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with implementing energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL). The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

The proposed project is expected to commence in 2021 and be completed in 3 years. The ECMs proposed on JB MDL include ground-mounted solar photovoltaic (PV) arrays, carport solar PV panels, roof-mounted solar PV panels, a microgrid control system, a battery energy storage system, and natural gas generators near existing substations.

The attachments to this email are the Description of the Proposed Action and Alternatives, which provides more details on the Proposed Action, and a cover letter. Note that these materials have been sent to you in hard copy but are also being sent via email because we understand that many people are teleworking and might not be able to retrieve packages sent to offices.

If you have information regarding potential impacts of the Proposed Action on the natural environment or other environmental aspects of which we are unaware, we would appreciate receiving such information for inclusion and consideration during the National Environmental Policy Act compliance process. We look forward to and welcome your participation in this process. Please respond within 30 days of receipt of these materials to ensure your concerns are adequately addressed in the EA.



The Delaware Nation Historic Preservation Department 31064 State Highway 281 Anadarko, OK 73005 Phone (405)247-2448

February 25, 2021

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s).

Project(s): Department of the Air Force Energy Savings Headquarters Air Mobility Command Joint Base McGuire-Dix-Lakehurst

Our office is committed to protecting tribal heritage, culture and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects.

The Lenape people occupied the area indicated in your letter prior to European contact until their eventual removal to our present locations. According to our files, the location of the proposed project does not endanger cultural, or religious sites of interest to the Delaware Nation. <u>Please</u> <u>continue with the project as planned</u> keeping in mind during construction should an archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities should immediately be halted until the appropriate state agencies, as well as this office, are notified (within 24 hours), and a proper archaeological assessment can be made.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Historic Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.

Crie M. Paden



Erin Paden Director of Historic Preservation Delaware Nation 31064 State Highway 281 Anadarko, OK 73005 Ph. 405-247-2448 ext. 1403 epaden@delawarenation-nsn.gov

Historical Commission Response

Bates	Michelle	•
Dates,	INITCHERIC	2

From:	Cureton, Sara <sara.cureton@sos.nj.gov></sara.cureton@sos.nj.gov>
Sent:	Tuesday, January 12, 2021 7:37 AM
To:	Pett, Sam
Subject:	Re: Joint Base McGuire-Dix-Lakehurst National Environmental Policy Act Scoping Materials

Dear Mr. Pett:

I am happy to forward this information to Ms. Marcopul at NJHPO. I will copy you so that you have her email address for future reference.

Best regards,

Sara Cureton

From: Pett, Sam <Sam.Pett@tetratech.com>
Sent: Friday, January 8, 2021 12:29 PM
To: Cureton, Sara <Sara.Cureton@sos.nj.gov>
Subject: [EXTERNAL] Joint Base McGuire-Dix-Lakehurst National Environmental Policy Act Scoping Materials

*** CAUTION ***

This message came from an **EXTERNAL** address (Sam.Pett@tetratech.com). <u>DO NOT</u> click on links or attachments unless you know the sender and the content is safe. Suspicious? Forward the message to spamreport@cyber.nj.gov.

Dear Ms. Cureton:

The U.S. Air Force is preparing an Environmental Assessment (EA) evaluating potential environmental impacts associated with implementing energy conservation measures (ECMs) for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL). The Proposed Action would modernize and optimize base building systems while providing resiliency and mission continuity through a mix of distributed generation, energy efficiency, infrastructure and targeted microgrid operation for critical loads.

The proposed project is expected to commence in 2021 and be completed in 3 years. The ECMs proposed on JB MDL include ground-mounted solar photovoltaic (PV) arrays, carport solar PV panels, roof-mounted solar PV panels, a microgrid control system, a battery energy storage system, and natural gas generators near existing substations.

The attachments to this email are the Description of the Proposed Action and Alternatives, which provides more details on the Proposed Action, and a cover letter. Note that these materials have been sent to you in hard copy but are also being sent via email because we understand that many people are teleworking and might not be able to retrieve packages sent to offices.

Ms. Cureton: If it wouldn't be too much bother, would you please forward the attached DOPAA and letter for Ms. Katherine Marcopul to her. I could not find an email address for Ms. Marcopul on the NJDEP Historic Preservation Office website. If you prefer and you have an email address for Ms. Marcopul, send her email address to me at

1

USFWS Concurrence Letter



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Jersey Field Office 4 E. Jimmie Leeds Road, Suite 4 Galloway, New Jersey 08205 Tel: 609/646 9310 www.fws.gov/northeast/njfieldoffice/



March 26, 2021

In reply refer to: 2021-I-0474

Michelle Bates, MESM 5383 Hollister Avenue Suite 130 Santa Barbara, California 93111 Email: michelle.bates@tetratech.com

Reference: JB MDL Energy Savings EA, 3021 McGuire Boulevard, Trenton, Burlington County, Ocean County, New Jersey 08641

The U.S. Fish and Wildlife Service (Service) has reviewed the above-referenced proposed project pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species. The following comments do not address all Service concerns for fish and wildlife resources and do not preclude separate review and comment by the Service as afforded by other applicable environmental legislation.

A known occurrence or potential habitat for the following federally-listed or proposed-listed species is located on or near the project's action area. However, the Service concurs that the proposed project is not likely to adversely affect federally-listed or proposed-listed species for the reasons listed below.

Species	Basis for Determination		
Northern long-eared bat, (Myotis	You may rely on the verification letters for Lakehurst Site, Back		
septentrionalis), threatened	Nine Site and North Run Site, dated March 10, 2021, for the		
- IA. 100000 - 1	Service's Programmatic Biological Opinion on the Final 4(d) Rule		
	for the Northern Long-eared Bat.		
Bog turtle, (Glyptemys	The Lakehurst site is located approximately 1000 feet from a		
muhlenbergii), threatened	wetland complex associated with a 1993 bog turtle		
	observation, however, no bog turtles were found in this area		
	during presence/absence surveys conducted in 2005 and		
	2006. An assessment by Herpetological Associates in 2018		
	determined no suitable habitat for bog turtle remained in the		
	wetland. No direct impacts to these wetlands are proposed.		
American chaffseed, (Schwalbea	The project proposes development of fields, but based on site		
Americana), endangered	photographs provided by Paul Mahon and Catherine Brunson,		
	dated March 17, 2021, suitable habitat for the American		
	chaffseed is not likely to be present within the project area.		
Knieskern's Beaked-rush,	The nearest known occurrence of Knieskern's beaked-rush is		
(Rhynchospora knieskernii),	over three miles away from the Lakehurst Site project		
threatened	location. Knieskern's beaked-rush generally grows in wetland		
	habitat. Suitable habitat is unlikely to be present at the North		

nltaa.doc 11/12/2020

	Run Site, Lakehurst Site or Back Nine Site project areas; therefore, no adverse effects to this species are anticipated
Swamp pink, (Helonias bullata), threatened	The Lakehurst site is located immediately adjacent to forested wetland; however, the hydrology of the tributary has been significantly altered by previous development upstream of the wetland and is unlikely to contain suitable habitat for swamp pink. No direct impacts to these wetlands are proposed

Except for the above-mentioned species, no other federally listed or proposed threatened or endangered flora or fauna under Service jurisdiction are known to occur within the proposed project's impact area. Therefore, no further consultation pursuant to the ESA is required. If additional information on federally listed species becomes available, or if project plans change, this determination may be reconsidered.

Please refer to this office's web site at <u>http://www.fws.gov/northeast/njfieldoffice/Endangered/</u> for further information including federally listed and candidate species lists, procedures for requesting ESA review, the National Bald Eagle Management Guidelines, and contacts for obtaining information from the New Jersey Natural Heritage and Endangered and Nongame Species Programs regarding State-listed and other species of concern.

Reviewing Biologist:	ARIEL FOIRIER Date: 2021.03.26 07:32:30 -05'00"		
	Ariel Poirier		
Authorizing Supervisor:	RONALD POPOWSKI	Digitally signed by RONALD POPOWSKI Date: 2021.03.26 08:44:33 -04'00'	
	Ronald Popov	wski	

Environmental Assessment Appendices

BURLINGTONCOUNTYTIMES.COM | MONDAY, MARCH 1, 2021 | 58

Notice of Availability

	Tour	Notice	olran			Public Notices	Public Notices	Public Notices
	Bond Ordinance	Statemen	its and Si	ummary		NOTICE	TOWNSHIP OF FLORENCE	774 (*2 Richards Courl) is not an expansion of a pre-existing non
e Ier	The bond ordinance, the summary to	erms of which	are included i	here n, has been	finally adopted by	CINNAMINSON TOWNSHIP BOARD OF EDUCATION	NOTICE OF DECISION	-conforming use, requiring a use variance on property located at 150
021 a	nd the twenty (20) day period of imitation ordinance can be commenced, as provide	within which a ed in the Local	suit, action or Bond Law, ra	oroceeding que as begun to run f	stioning the validity from the date of the	BID SPECIFICATIONS FOR	DATE: February 23, 2021 ISSUED TO: Pro-Logis Exchange	County Route 530, also known as Block 701, Lot 4.01 on the tax maps of the Total and the tax maps
st p. p.rs, ew J	b cation of this statement. Copies of the fi at the Township Clerk's office at in the De arasy US075, for members of the general of	ull ordinance ar eiran Township oub ic who requ	e available at Municipal Bu lest the same.	no cost and durr licing, 900 Ches . The summary o	ng regular business ter Avenue, Delran, of the terms of such	CHROMEBOOKS, QUANTITY 270 ADDENDUM #1 Dated February 24, 2021	270 Daniels Way LLC ADDRESS: 1800 Wazee Street, suite 500, Denver, CO	quired to install the replacement home, that writing will be request ed. This property is located in this
it e:	BOND ORDINANCE AUTHORIZING	STORMWATE	R REPAIRS	ON STEWART A	VENUE	General Description of Goods	IN THE MATTER OF: Application of Prologis-Exchange 270 Daniels	Pinelands Area's Agricultural Pro duction (AP) District, and the pre
	IN AND FOR THE TOWNSHIP OF I THEREFOR: AUTHORIZING THE	ISSUANCE O	F GENERAL	OBLIGATION	575,000 BONDS	and/or services to be provided:	Way LLC for Final Major Site Plan to construct the Phase 2 excansion.	rent may not be permitted in the
	BURLINGTON, NEW JERSEY, IN 1	THE AGGREG	ATE PRINCIP	AL AMOUNT N	IOT TO	The District is seeking 270 NEW ACER. or equivalent, Chrome-	APPLICATION NUMBER:	the Board to permit the waiver of a
_	AUTHORIZING CERTAIN RELATED	ACTIONS IN CO	DNNECTION I	WITH THE FORE	GOING	Licenses. Units must be NEW	PB#2020-07	home park as part of this interpreta tion request and possible variance
	Purpose/Improvement	Estimated Total Cost	Down Parment	Amount of Oblications	Period of Usefulness	meet or exceed the minimum	LOCATION: 270 Daniele Way, Eler-	request. Furthermore, the applican seeks a variance to permit the us
A.	Stormwater Repairs on Stewart	\$75.000	\$3,750	\$71.250	40 years	BASE BID:	eros Tawnship	of a temporary grawl space foundation for the replacement mobile
	Avenue, together with the completion of all work necessary therefor in related					Chromebooks:	DECISION: Approval granted	home, as the ordinance ordinarit prohibits use of a crawl space at
	thereto, all as more particularly set forth					Base Bid is for a quantity of 270	REASON AND/OR REMARKS: As outlined in Resolution PB-2021-05	part of a foundation for a mobile home.
	Engineer					NEW ACER, or equivalent. Chro- mebooks with, at minimum. '4inch	and available for public inspection online at www.florence-nj.gov or in	in addition to the foregoing cesor
oproponda	viation: \$75,000 Notes Authorized: \$71,250					HD non-touch cisolay, 16:9 aspect	the Office of the Planning Board during normal business hours.	the applicant will also seek approval for any and all other waters of de
ect of	n 20 Costs: \$7,000 Life: 40 years					ratio, Intel Celeron N4020 process- or, 4GB RAM, camera, microphone,	Carl Mattson, Secretary	sign standards and/or supmission
			JAMEY E	GGERS, Municip	a Clerk	speakers, 802, 1ac Wave 2 wire- less, Bluetootr 5.0, two (2) USB 3.1	Florence Township Planning Board	tions, interpretations, exceptions approvals, site plan approval
13 N 837-9	otice is oublished pursuant to N.J.S.A. 40/ 822-2104, v. 1	4:2-17.			1.100	Type A ports, two (2) USB 3. Type A ports, Device must sup-	Adv. Foo: S24.84	and/or other incidental relief that may be required or deemed neces
dw. Fr	ee: \$62.60 farch 1, 2021				Decision of the second s	port DisplayPort over USB-C, must sub- port DisplayPort over USB-C, 32GB	Alf. Chg.: \$20.00 7381918	sary by the Board after or during its review of this application, togethe
f. C	g.: \$20.00				i	and Google Auto Update Expiration	TOWNSHIP OF FLORENCE PLANNING BOARD	with any further relief that may be deemed necessary as reflected in
-	PII		ICE			Management Software Licenses:	NOTICE OF DECISION	the plans and materials filed during the hearing process, including that
	r v	DEICHOI	ICL				DATE: February 23, 2021	which may be generated by way o
	NOTICE	OF AVAIL	ABILITY			Base bid shall include a cuantity of	ISSUED TO: Florence Associates	nevised plans and submissions of
	NOTICE DRAFT ENVIRON	OF AVAIL	ABILITY	ENT AND		Base bid shall include a quantity of 270 Perpetual Google Chrome Edu- cation Management Licenses.	ISSUED TO: Florence Associates LLC ADDRESS: 41 Bayard Street, 2nc	same to the Board.
	NOTICE DRAFT ENVIRONI PROPOSED FINDING	OF AVAIL	ABILITY	ENT AND	т	Base old shall include a quantity of 270 Perpetual Google Chrome Edu- cation Management Licenses. Adv. Fee: \$32.66	ISSUED TO: Porence Associates LLC ADDRESS: 41 Bayard Street, 2nc Floor, New Brunswick, NJ 08001	A public hearing has been set for this application on March 11, 2021
	NOTICE DRAFT ENVIRON PROPOSED FINDING FOR ENERGY SA	OF AVAIL MENTAL A OF NO S VINGS PE	ABILITY SSESSM IGNIFICA RFORMA	ENT AND	T	Base bid shall holide a quantity of 270 Perpetual Google Chrome Edu- cation Management Licenses. Adv. Res: SS2.86 BCT: March 1, 2021 Aff. Chg. \$20:00 7382028	ISSUED TO: Flors-roe Associates LLC ADDRESS: 41 Bayard Street, 2rc Floor, New Brunswick, NJ 08901 IN THE MATTER OF: Application for Arrendec Final Site Plan to	revised plane and submissions of same to the Board. A public hearing has been set for this application on March 11, 202 at 7:30 PM. Limited in-person at tendance and santicipation will be mernited at the mericinal huildings
- En	NOTICE DRAFT ENVIRON PROPOSED FINDING FOR ENERGY SA JOINT BASE MCGUIRE	OF AVAIL MENTAL A OF NO S VINGS PE -DIX-LAK	ABILITY SSESSM IGNIFICA RFORMA EHURST,	ENT AND INT IMPAC INCE AT INCE AT INEW JERS	T SEY	Base old shall include a cuantity of 270 Perpetual Google Chome Edu- cation Management Licenses. Adv. Fee: S22.86 BCT: March 1, 2021 Aff. Chg: \$20.30 NOTICE	ISSUED TO: Florence Associates LC ADDRESS: 41 Bayand Street, 2nc Floor, New Brunswick, NJ 08001 IN THE MATTER CF: Application for Anrandec Final Site Plan to charge to prior approved bedroom thereful on welling here residential welling the generative and an anna-	reveed plane and submissions c same to the Board. A public hearing has been set for this application on March 11, 202 at 7:30 PM. Limite: in-person at tendance and samiopation will be permitted at the numicable building 5 Rotreal Road. Southarnoton, No. 1 advillion, this will also be a virtue
r En Fene	NOTICE DRAFT ENVIRON PROPOSED FINDING FOR ENERGY SA JOINT BASE MCGUIRE itormental Assessment (EA) has been peo granaevation mesures for destroal of 10 The purpose of this poince is to iccre	OF AVAIL MENTAL A OF NO S VINGS PE -DIX-LAK	ABILITY SSESSM IGNIFICA RFORMA EHURST, of the impacts gy savings of	ENT AND ANT IMPAC ANCE AT NEW JERS associated with Joint Base Mod	T SEY the implementation	Base old shall include a cuantity of 270 Perpetuid Google Orner Esu- cation Management Los ese. Adv. Fee: SS2285 BCT: March 1, 2021 Aff. Ohg: \$20.00 7582028 NOTICE March Auction Ad	ISSUED TO: Flore-ce Associates Lic ADDRESS: 41 Bayard Street, 2nc Floor, New Brinswick, NU 08501 IN THE MATTER OF: Application for Arrander Frail Site Plan to charge to prior approves bedroom riskitinution within the mailcheflat portion of the cerebioprimit on pro- city, incolate al 2054 2040-130	reveled plane and submissions of serve to the Board. A public hearing has been set for this application on March 11, 202 at 7:30 PM. Limites in-present at tendance and semicipation will be permitted at the municipation will be permitted at the municipation will be permitted at the municipation will be in addition, this will also be a virtual meeting conducted to facilitate par- ticulation cessible the invitation on
r En 1 ene 16 Mil 10pa	NOTICE DRAFT ENVIRONM PROPOSED FINDING FOR ENERGY SA JOINT BASE MCGUIRE inormental Assessment (EA) has been prog- quantariotation mesures for leaf read quantariotation mesures for leaf read activity is readed to accurately with field	OF AVAIL MENTAL A OF NO S VINGS PE -DIX-LAK pared to analyze ower and ener ass JB MDL's (eral agency cl	ABILITY SSESSM IGNIFICA FFORMA EHURST, a the impacts gy savings at anergy securit rectives such	ENT AND INT IMPAC ANCE AT NEW JERS associated with Joint Base MaG y, esiliancy, and as the Energy F	T SEY the implementation aure-Davia avenue, The Policy Act of 2005; 2009 Act of 2005;	Base bid shall notute a cuantity of 270 Perpetual Google Onrome Esu- cation Management Licenses. Adv. Fee: SS2:86 BCT: March 1, 2021 Aff. Chg.: Bol Sci. 7582028 March Austion Ad Pages take notice StrantStop Self Stofuse located at A233 Foute 130	ISSUED TO: Flore-ce Associates Lic ADDRESS: 41 Bayard Streed, 2rc Floor, New Brinswick, NU 08001 IN THE MATTER OF: Application for Arrandoc Field Site Plan to charge to prior approves bedroom- rely locates al 2014 Apple State orty locates al 2014 Apple State 130 South, Element Township, Apple State 2021 (2011)	reveal plans and submissions of same to the Board. A public hearing has been set for this application on March 11, 202 at 7:30 PM. Limitac importson at tendance and participation will be permitted at the municipal building of Rotroal Road, Southarston, M., In addition, this will also be a virtue meeting overheads to folditive participation the number of people gathering onesister with Executive Onters to
r Env Fene IB MI ropox kecur nerg)	NOTICE DRAFT ENVIRONM PROPOSED FINDING FOR ENERGY SA JOINT BASE MCGUIRE Viormental Assessment (EA) mas been pro- granaevisitation messiumis for inderteal of 24. The purpose of this project is to incre se Action is needled to complexity with fest web actions in secture Federal Operation Management.	OF AVAIL MENTAL A G OF NO S VINGS PE -DIX-LAK pared to analyz www.r and ever ase JB MDL's (ever agency di- ons; and Depar	ABILITY SSESSM IGNIFICA FORMA EHURST, of the impacts gy savings at energy securit rectives such there of Defe	ENT AND NT IMPAC NCE AT NEW JERS associated within Joint Base Med g, realisency, and as the Friengy P rise Instruction 4	T SEY the implementation aure-Dixel aremunst conservation. The Palicy Act of 2005; 170.11, <i>installation</i>	Base bid shall notute a cuantity of 270 Perpetual Google Ornore Esu- cation Management Licenses. Adv. Fee: SS2:86 BCT: March 1,2021 Aft. Chg: \$20:00 NOTICE March Auction Ad Plages take notice GrantStop Self Stobuse located at 4239 Acute 130 South Reverty. New Janey. 00010, Interdex or Idd an acute on of the	ISSUED TO: Florence Associates LC ADDRESS: 41 Bayard Street, 2rc Floor, New Sinnewick, NJ 08001 IN THE MATTER OF: Application for Arrandor Field Side Plan to charge to prior approves bedroom- risk induition within the maidtenial portion of the cevelopment on pro- certly locates al 2054 Apple 130 South, Florence Township. APPLICATION NUMBER: P042020-06	reveals plant and submissions a same to be Board. A sublic hearing has been set for this application on March 11, 202 at 7:30 PM. Limitse imperson at tendance and samicpation will be permitted at the municipal building. 5 Retroat Road, Southarrator, N., I addition, this will also be a write meeting controlled to facilitate part bioarding cases the the initiation on consistent with Concelline Orders to consistent with Concelline Orders to construct with Concelline Orders to controlly with Social Distancing mul-
ir En JE MI Mopor Xecu inergi he Er	NOTICE DRAFT ENVIRONM PROPOSED FINDING FOR ENERGY SA JOINT BASE MCGUIRE Viormental Assessment (EA) ras been pro- gy conservation messures for relativation 24. The purpose of this project as to incre action is needed to compare vide for Management. A propende in accordance with the Netice and Idease activation for the Netice activation for the Netice Activation for the Netice Activation for the Netice activation for the Netice Activation for the Netice activation for the Netice Activation for the Netice Activation for the Netice Activation for the Netice activation for the Netice Activation fo	OF AVAIL MENTAL A G OF NO S VINGS PE -DIX-LAK pared to analyze ware and ever asse JB MDL's e eral agency d ons: and Depar na. Environment	ABILITY SSESSM GONIFICA FORMA EHURST, a the impacts gy savings at anergy sacuto tent of Defe the Policy Acc	ENT AND INT IMPAC INCE AT NEW JERS associated with Unit: Base MeG by, resiliency, and as the Energy F rise Instruction 4 (INEPA), Counc- oncord at Immed	T SEY the implementation aure-Dix-Lakenume on Environmental on Environmental	Base old shall notube a cuantity of 270 Perpetuid Google Ornore Esu- cation Management Licences. Adv. Fee: SS2:86 BCT: March 1, 2021 Aft. Chg: \$20:00 NOTICE Not Auction Ad Plages take notice GrantStop Self Solum Perety, New Janey, 00010, Interdis prode an 428 Acute 100 South Perety, New Janey, 00010, Interdis on old an acute on of the goods soled in the following units to satisfy the Jiero of the comerc. The	ISSUED TO: Florence Associates LC ADDRESS: 41 Bayard Street, 2rc Floor, New Sinnewick, NU 88001 IN THE MATTER OF: Application for Arrandor Field Side Plan to charge to prior approve bedroom rely. Koates at 2054 Apple. Appl.LCATION NUMBER: PDR2020-008 BLOCKIS: 180.01 LOT/S: 4, 11-01, 11 D2 A3	reveals plant and submittaints : same to the Board. A public hearing has been set for this application on March 11, 202 at 7:30 PM. Limites imperson at territance and southarmonth, and 6 Retroat Read. Southarmon, while of Retroat Read. Southarmon, while retering concluded to facilitate part teaseful on the set of people aphretim comply with Social Delanding mount optimized as may and the conclusion of the Delanderus and the conclusion of the control of the social southarmonic of the control of the social southarmonic of the control of the social social southarmonic optimized as magnetic of the social social social public network of the social social social social will be conducted using 200m Web
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Library Receipts

MEMORANDUM

Subject: Receipt of Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) for Energy Savings Performance at Joint Base McGuire-Dix-Lakehurst (JB MDL), New Jersey

Pemberton Branch Library **Burlington County** 16 Broadway Browns Mills, NJ 08015

Attn: Head Librarian/Library Manager

This is to record that we have delivered to you a copy of the above referenced Draft EA and proposed FONSI for public review/inspection per the terms of the associated Notice of Availability (NOA).

By signing below, you acknowledge that you have received a copy of the above referenced document; will make it available in the library and in an area where the public can readily review/inspect the document; and will leave the document out for the duration of the public comment period as stated on the NOA. Please contact JB MDL if you need a replacement copy (Carl Champion: 609-754-6166).

Delivered by

Library Signature:

Louri Bou de

2/24/21 Date

2 26/21 Date

MEMORANDUM

Subject: Receipt of Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) for Energy Savings Performance at Joint Base McGuire-Dix-Lakehurst (JB MDL), New Jersey

Manchester Library Branch Ocean County 21 S. Colonial Dr. Manchester, NJ 08759

Attn: Head Librarian/Library Manager

This is to record that we have delivered to you a copy of the above referenced Draft EA and proposed FONSI for public review/inspection per the terms of the associated Notice of Availability (NOA).

By signing below, you acknowledge that you have received a copy of the above referenced document; will make it available in the library and in an area where the public can readily review/inspect the document; and will leave the document out for the duration of the public comment period as stated on the NOA. Please contact JB MDL if you need a replacement copy (Carl Champion: 609-754-6166).

Delivered by:

Library Signature:

Elizabech Benza

2/24/21

Date

2/26/21

Date

MEMORANDUM

Subject: Receipt of Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) for Energy Savings Performance at Joint Base McGuire-Dix-Lakehurst (JB MDL), New Jersey

Burlington County Library Main Branch **5** Pioneer Boulevard Westampton, NJ 08060

Attn: Head Librarian/Library Manager

This is to record that we have delivered to you a copy of the above referenced Draft EA and proposed FONSI for public review/inspection per the terms of the associated Notice of Availability (NOA).

By signing below, you acknowledge that you have received a copy of the above referenced document; will make it available in the library and in an area where the public can readily review/inspect the document; and will leave the document out for the duration of the public comment period as stated on the NOA. Please contact JB MDL if you need a replacement copy (Carl Champion: 609-754-6166).

Delivered by:

Library Signature:

Date

Date

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Appendix B

Air Pollutant Emissions Calculations

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

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 Instruction 32-7040, Air Quality Compliance And Resource Management; 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: McGuire
State: New Jersey
County(s): Burlington
Regulatory Area(s): Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE; Philadelphia-Wilmington, PA-NJ-DE

- **b. Action Title:** Solar JB MDL Installation
- c. Project Number/s (if applicable): Solar JB MDL Installation
- d. Projected Action Start Date: 1 / 2021
- e. Action Description:

Solar JB MDL Installation

f. Point of Contact:

Name:	Jonas Berge
Title:	Contractor
Organization:	Tetra Tech
Email:	jonas.berge@tetratech.com
Phone Number:	805-895-2054

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:

Pollutant	Action Emissions	GENERAL	CONFORMITY			
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)			
Philadelphia-Wilmington-	Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE					
VOC	0.313	50	No			
NOx	1.931	100	No			
CO	1.852					

2021

Environmental Assessment Appendices

2021

Pollutant	Action Emissions	GENERAL	CONFORMITY
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)
SOx	0.005		
PM 10	21.883		
PM 2.5	0.083		
Pb	0.000		
NH3	0.001		
CO2e	464.4		
Philadelphia-Wilmington,	PA-NJ-DE		
VOC	0.313	100	No
NOx	1.931	100	No
CO	1.852		
SOx	0.005	100	No
PM 10	21.883		
PM 2.5	0.083	100	No
Pb	0.000		
NH3	0.001	100	No
CO2e	464.4		

2022

Pollutant	Action Emissions	GENERAL CONFORMITY		
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)	
Philadelphia-Wilmington-	Atlantic City, PA-NJ-MD-D	E		
VOC	1.238	50	No	
NOx	17.924	100	No	
CO	14.510			
SOx	0.092			
PM 10	1.135			
PM 2.5	1.135			
Pb	0.000			
NH3	0.000			
CO2e	18386.6			
Philadelphia-Wilmington,	PA-NJ-DE			
VOC	1.238	100	No	
NOx	17.924	100	No	
CO	14.510			
SOx	0.092	100	No	
PM 10	1.135			
PM 2.5	1.135	100	No	
Pb	0.000			
NH3	0.000	100	No	
CO2e	18386.6			

2023 - (Steady State)

Pollutant	Action Emissions	GENERAL	CONFORMITY
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)
Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE			
VOC	1.238	50	No

Pollutant	Action Emissions	GENERAL	CONFORMITY		
	(ton/yr)	Threshold (ton/yr)	Exceedance (Yes or No)		
NOx	17.924	100	No		
CO	14.510				
SOx	0.092				
PM 10	1.135				
PM 2.5	1.135				
Pb	0.000				
NH3	0.000				
CO2e	18386.6				
Philadelphia-Wilmington,	PA-NJ-DE				
VOC	1.238	100	No		
NOx	17.924	100	No		
CO	14.510				
SOx	0.092	100	No		
PM 10	1.135				
PM 2.5	1.135	100	No		
Pb	0.000				
NH3	0.000	100	No		
CO2e	18386.6				

2023 - (Steady State)

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.

Electronically signed	December 21, 2020
Jonas Berge, Contractor	DATE

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: McGuire
State: New Jersey
County(s): Burlington
Regulatory Area(s): Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE; Philadelphia-Wilmington, PA-NJ-DE

- Action Title: Solar JB MDL Installation
- Project Number/s (if applicable): Solar JB MDL Installation
- Projected Action Start Date: 1/2021
- Action Purpose and Need: Solar JB MDL Installation
- Action Description: Solar JB MDL Installation

- Point of Contact

Name:	Jonas Berge
Title:	Contractor
Organization:	Tetra Tech
Email:	jonas.berge@tetratech.com
Phone Number:	805-895-2054

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Solar JB MDL Installation
3.	Emergency Generator	Three 2-MW Generators
4.	Heating	Boilers

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

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County: Burlington
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Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE

- Activity Title: Solar JB MDL Installation

- Activity Description:

Solar JB MDL Installation

A total of 66 acres graded - assumes 25 acres at a time, assumes 1 month to grade for each section as a reasonable upper bound.

1,600 square feet of construction for the BESS

2 acres paving

1,700 square feet of fencing/trenching

- Activity Start Date

Start Month:1Start Month:2021

- Activity End Date

Indefinite: False End Month: 3 End Month: 2021

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.313366
SOx	0.004740
NOx	1.930525
CO	1.851784
PM 10	21.883087

Pollutant	Total Emissions (TONs)
PM 2.5	0.083070
Pb	0.000000
NH ₃	0.000754
CO ₂ e	464.4

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date Start Month: 1 Start Quarter: 1 Start Year: 2021
- Phase Duration Number of Months: 2 Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information Area of Site to be Graded (ft²): 109,4000 Amount of Material to be Hauled On-Site (yd³): 0 Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading 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	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rollers Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	3	8
Tractors/Loaders/Backhoes Composite	3	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

2.1.3 Site Grading Phase Emission Factor(s)

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

Excavators Composite										
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e		
Emission Factors	0.0687	0.0013	0.3576	0.5112	0.0158	0.0158	0.0062	119.73		
Graders Composi	te									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e		
Emission Factors	0.0860	0.0014	0.5212	0.5747	0.0247	0.0247	0.0077	132.93		
Other Constructio	n Equipm	ent Compo	osite							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e		
Emission Factors	0.0533	0.0012	0.3119	0.3497	0.0121	0.0121	0.0048	122.61		
Rollers Composite	e									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH₄	CO ₂ e		
Emission Factors	0.0539	0.0007	0.3483	0.3816	0.0205	0.0205	0.0048	67.160		
Rubber Tired Doz	ers Compo	osite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e		
Emission Factors	0.2015	0.0024	1.4660	0.7661	0.0581	0.0581	0.0181	239.53		
Scrapers Compos	ite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e		
Emission Factors	0.1814	0.0026	1.2262	0.7745	0.0491	0.0491	0.0163	262.89		
Tractors/Loaders/	Backhoes	Composit	e							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e		
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890		

Environmental Assessment Appendices

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e

	VUC	SOx	NOx	CO	PINI 10	PIVI 2.5	PD	NH ₃	CO ₂ e
LDGV	000.266	000.002	000.209	003.068	800.000	000.007		000.023	00313.914
LDGT	000.309	000.003	000.353	004.101	000.010	000.009		000.024	00406.448
HDGV	000.630	000.005	001.017	014.444	000.024	000.021		000.044	00756.575
LDDV	000.120	000.003	000.138	002.513	000.004	000.004		800.000	00303.783
LDDT	000.254	000.004	000.390	004.285	000.007	000.006		800.000	00432.722
HDDV	000.671	000.013	006.097	002.135	000.173	000.159		000.031	01528.646
MC	002.146	000.003	000.796	012.783	000.027	000.024		000.056	00399.526

2.1.4 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

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

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

- 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 WorksNE: Number of Construction Equipment

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

VPOL: 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

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date Start Month: 1 Start Quarter: 1 Start Year: 2021

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

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information Area of Site to be Trenched/Excavated (ft²): 1,700 Amount of Material to be Hauled On-Site (yd³): 0 Amount of Material to be Hauled Off-Site (yd³): 0
- 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

2.2.3 Trenching / Excavating Phase Emission Factor(s)

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

Excavators Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0687	0.0013	0.3576	0.5112	0.0158	0.0158	0.0062	119.73	
Graders Composit	te								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0860	0.0014	0.5212	0.5747	0.0247	0.0247	0.0077	132.93	
Other Constructio	n Equipm	ent Compo	osite						
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e	
Emission Factors	0.0533	0.0012	0.3119	0.3497	0.0121	0.0121	0.0048	122.61	
Rollers Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0539	0.0007	0.3483	0.3816	0.0205	0.0205	0.0048	67.160	
Rubber Tired Doze	ers Compo	osite							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e	
Emission Factors	0.2015	0.0024	1.4660	0.7661	0.0581	0.0581	0.0181	239.53	
Scrapers Compos	ite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.1814	0.0026	1.2262	0.7745	0.0491	0.0491	0.0163	262.89	
Tractors/Loaders/	Backhoes	Composit	e						
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890	

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

	VOC	SOx	NOx	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.266	000.002	000.209	003.068	800.000	000.007		000.023	00313.914
LDGT	000.309	000.003	000.353	004.101	000.010	000.009		000.024	00406.448
HDGV	000.630	000.005	001.017	014.444	000.024	000.021		000.044	00756.575
LDDV	000.120	000.003	000.138	002.513	000.004	000.004		800.000	00303.783
LDDT	000.254	000.004	000.390	004.285	000.007	000.006		800.000	00432.722
HDDV	000.671	000.013	006.097	002.135	000.173	000.159		000.031	01528.646
MC	002.146	000.003	000.796	012.783	000.027	000.024		000.056	00399.526

2.2.4 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

VPOL = (VMTwr * 0.002205 * EFPOL * 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

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date Start Month: 1 Start Quarter: 1 Start Year: 2021

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

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information
 - Building Category:Office or IndustrialArea of Building (ft²):1,600Height of Building (ft):12Number of Units:N/A
- Building Construction 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
Cranes Composite	1	4
Forklifts Composite	2	6
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

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

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

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

2.3.3 Building Construction Phase Emission Factor(s)

Cranes Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH₄	CO ₂ e	
Emission Factors	0.0845	0.0013	0.6033	0.3865	0.0228	0.0228	0.0076	128.82	
Forklifts Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH₄	CO ₂ e	
Emission Factors	0.0293	0.0006	0.1458	0.2148	0.0056	0.0056	0.0026	54.462	
Tractors/Loaders/Backhoes Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890	

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

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.266	000.002	000.209	003.068	800.000	000.007		000.023	00313.914
LDGT	000.309	000.003	000.353	004.101	000.010	000.009		000.024	00406.448
HDGV	000.630	000.005	001.017	014.444	000.024	000.021		000.044	00756.575
LDDV	000.120	000.003	000.138	002.513	000.004	000.004		800.000	00303.783
LDDT	000.254	000.004	000.390	004.285	000.007	000.006		800.000	00432.722
HDDV	000.671	000.013	006.097	002.135	000.173	000.159		000.031	01528.646
MC	002.146	000.003	000.796	012.783	000.027	000.024		000.056	00399.526

2.3.4 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)

VPOL = (VMTVE * 0.002205 * EFPOL * VM) / 2000

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

- 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

VPOL: 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)

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

VPOL: 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

2.4 Paving Phase

2.4.1 Paving Phase Timeline Assumptions

- Phase Start Date Start Month: 1 Start Quarter: 1 Start Year: 2021
- Phase Duration Number of Month: 1 Number of Days: 0

2.4.2 Paving Phase Assumptions

- General Paving Information Paving Area (ft²): 87120

- Paving 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
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Paving Equipment Composite	2	6
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

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

2.4.3 Paving Phase Emission Factor(s)

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

Excavators Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e
Emission Factors	0.0687	0.0013	0.3576	0.5112	0.0158	0.0158	0.0062	119.73
Graders Composi	te							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e
Emission Factors	0.0860	0.0014	0.5212	0.5747	0.0247	0.0247	0.0077	132.93
Other Constructio	n Equipm	ent Comp	osite					
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e
Emission Factors	0.0533	0.0012	0.3119	0.3497	0.0121	0.0121	0.0048	122.61
Rollers Composite	e							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e
Emission Factors	0.0539	0.0007	0.3483	0.3816	0.0205	0.0205	0.0048	67.160
Rubber Tired Doz	ers Compo	osite						
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH₄	CO ₂ e
Emission Factors	0.2015	0.0024	1.4660	0.7661	0.0581	0.0581	0.0181	239.53
Scrapers Compos	ite							
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH₄	CO ₂ e
Emission Factors	0.1814	0.0026	1.2262	0.7745	0.0491	0.0491	0.0163	262.89
Tractors/Loaders/	Backhoes	Composit	te					
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0407	0.0007	0.2505	0.3606	0.0112	0.0112	0.0036	66.890

Environmental Assessment Appendices

- Vehicle	Exhaust 8	Worker 1	rips Emiss	sion Facto	ors (grams	/mile)	
	VOC	00	NO	~~~	DM 40		DL

	VOC	SOx	NOx	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.266	000.002	000.209	003.068	800.000	000.007		000.023	00313.914
LDGT	000.309	000.003	000.353	004.101	000.010	000.009		000.024	00406.448
HDGV	000.630	000.005	001.017	014.444	000.024	000.021		000.044	00756.575
LDDV	000.120	000.003	000.138	002.513	000.004	000.004		800.000	00303.783
LDDT	000.254	000.004	000.390	004.285	000.007	000.006		800.000	00432.722
HDDV	000.671	000.013	006.097	002.135	000.173	000.159		000.031	01528.646
MC	002.146	000.003	000.796	012.783	000.027	000.024		000.056	00399.526

2.4.4 Paving 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} = PA * 0.25 * (1 / 27) * (1 / HC) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft²)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
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)

VPOL = (VMTVE * 0.002205 * EFPOL * VM) / 2000

VPOL: 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

VPOL: 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

- Off-Gassing Emissions per Phase

VOC_P = (2.62 * PA) / 43560

VOC_P: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft²)
43560: Conversion Factor square feet to acre (43560 ft2 / acre)² / acre)

3. Emergency Generator

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add
- Activity Location

County: Burlington

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-DE

- Activity Title: Three 2-MW Natural Gas Fired Emergency Generators

- Activity Description:

- Activity Start Date Start Month: 1 Start Year: 2022
- Activity End Date

Indefinite:	Yes
End Month:	N/A
End Year:	N/A

- Activity Emissions:

Pollutant	Emissions Per Year				
	(TONs)				
VOC	0.4169				
SOx	0.0024				
NOx	2.9954				
CO	1.9700				
PM 10	0.0004				

3.	2	Emergency	Generator	Assumptions
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- Emergency Generator

Type of Fuel used in Emergency Generator:

Pollutant	Emissions Per Year
	(TONs)
PM 2.5	0.0004
Pb	0.000000
NH ₃	0.000000
CO ₂ e	414.1

Natural Gas - 4 Stroke Lean Burn

3

Number of Emergency Generators:

- Default Settings Used: No
- Emergency Generators Consumption Emergency Generator's Horsepower: 3000 Average Operating Hours Per Year (hours): 100

3.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

VOC	SOx	NOx	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

3.4 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)

4. Heating

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add
- Activity Location

Regulatory Area(s): Philadelphia-Wilmington, PA-NJ-DE; Philadelphia-Wilmington-Atlantic City, PA-NJ-DE

- Activity Title: Boilers

- Activity Description:

Boilers

This an upperbound assessment assumes 2,500,000 sqft of heated area. This could be 10 boilers for 10 buildings that are 250,000 sqft each - or 25 boilers for 25 buildings that are 100,000 each.

- Activity Start Date

Start Month: 1 Start Year: 2022

- Activity End Date

Indefinite:	Yes
End Month:	N/A
End Year:	N/A

County: Burlington

- Activity Emissions:

Pollutant	Emissions Per Year
	(TONs)
VOC	0.821071
SOx	0.089571
NOx	14.928571
CO	12.540000
PM 10	1.134571

Pollutant	Emissions Per Year	
	(TONs)	
PM 2.5	1.134571	
Pb	0.000000	
NH ₃	0.000000	
CO ₂ e	17972.5	

4.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): Type of fuel: Type of boiler/furnace: Heat Value (MMBtu/ft³): Energy Intensity (MMBtu/ft²): 2,500,000 Natural Gas Commercial (0.3 - 10 MMBtu/hr) 0.00105 0.1254

- Default Settings Used: No
- Boiler/Furnace Usage Operating Time Per Year (hours): 8760

4.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

VOC	SOx	NOx	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
5.5	0.6	100	84	7.6	7.6			120390

4.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

FC_{HER}= HA * EI / HV / 1000000

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method
HA: Area of floorspace to be heated (ft²)
EI: Energy Intensity Requirement (MMBtu/ft²)
HV: Heat Value (MMBTU/ft³)
1000000: Conversion Factor

- Heating Emissions per Year

HEPOL= FC * EFPOL / 2000

HE_{POL}: Heating Emission Emissions (TONs) FC: Fuel Consumption EF_{POL}: Emission Factor for Pollutant 2000: Conversion Factor pounds to tons

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Emission Factors ((hWWh)	1.51	1.163	1,059.0	0.0274	0.01703	I		
			Net Emissi	ons Savin	gs from Di	splaced Elec	tricity (tp)	(/	
Renewable		Hours of							
Energy	MM	Sunlight	MWh	NOx	SO_2	CO_2	CH₄	N_20	CO ₂ e
McGuire	27	4	39,420	29.8	22.9	20,872.9	0.540	0.336	20,988
Dix	5	4	7,300	5.5	4.2	3,865.4	0.100	0.062	3,887
Lakehurst	4	4	5,840	4.4	3.4	3,092.3	0.080	0.050	3,109
Total Savings	36	4	52,560	39.7	30.6	27,830.5	0.720	0.448	27,984
Total Savings	36	4	52,560	39.7	30.6	27,830.5	4	0.720	0.720 0.448

Source: USEPA 2012 (eGRID2012 Version 1.0 Year 2007 Summary Tables [created April 2012]).

Appendix C Notice of Availability

PUBLIC NOTICE

NOTICE OF AVAILABILITY DRAFT ENVIRONMENTAL ASSESSMENT AND PROPOSED FINDING OF NO SIGNIFICANT IMPACT FOR ENERGY SAVINGS PERFORMANCE AT JOINT BASE MCGUIRE-DIX-LAKEHURST, NEW JERSEY

An Environmental Assessment (EA) has been prepared to analyze the impacts associated with the implementation of energy conservation measures for electrical power and energy savings at Joint Base McGuire-Dix-Lakehurst (JB MDL). The purpose of this project is to increase JB MDL's energy security, resiliency, and conservation. The Proposed Action is needed to comply with federal agency directives such as the Energy Policy Act of 2005; Executive Order 13834, *Efficient Federal Operations*; and Department of Defense Instruction 4170.11, *Installation Energy Management*.

The EA, prepared in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations, and Air Force instructions implementing NEPA, evaluates potential impacts of the alternative actions on the environment including the No-action Alternative. Based on this analysis, the Air Force has prepared a proposed Finding of No Significant Impact (FONSI).

The Draft EA and proposed FONSI, dated February 2021, are available for review at the following locations:

Manchester Library Branch	Pemberton Branch Library	Burlington County Library
Ocean County	Burlington County	Main Branch
21 S. Colonial Dr.	16 Broadway	5 Pioneer Boulevard
Manchester, NJ 08759	Browns Mills, NJ 08015	Westampton, NJ 08060

Electronic copies of the documents can also be found on the JB MDL website under the heading *Environmental Publications* at https://www.jbmdl.jb.mil/About-Us/About-Us/Environmental-Publications/.

You are encouraged to submit comments through March 29, 2021. Comments should be provided to Carl Champion, 787th CES/CEIE, Civil Engineering Squadron, Environmental Office, 2404 Vandenberg Avenue, Joint Base MDL, NJ 08641.

Environmental Assessment Appendices

PRIVACY ADVISORY NOTICE

Public comments on this Draft EA are requested pursuant to NEPA, 42 United States Code 4321, et seq. All written comments received during the comment period will be made available to the public and considered during the final EA preparation. Providing private address information with your comment is voluntary and such personal information will be kept confidential unless release is required by law. However, address information will be used to compile the project mailing list and failure to provide it will result in your name not being included on the mailing list.

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