## Final

## **Environmental Assessment**

Addressing Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution Cherry Point, North Carolina





Contract: FA8903-15-D-0007 Task: FA8903-20-F-1138

Prepared for: Defense Logistics Agency Distribution

## September 2024

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#### DEFENSE LOGISTICS AGENCY AND DEPARTMENT OF THE NAVY UNITED STATES MARINE CORPS

#### FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR THE ENVIRONMENTAL ASSESSMENT ADDRESSING CONSTRUCTION AND OPERATION OF A GENERAL PURPOSE WAREHOUSE AT DEFENSE LOGISTICS AGENCY DISTRIBUTION CHERRY POINT ON MARINE CORPS AIR STATION CHERRY POINT, NORTH CAROLINA

Pursuant to Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act (40 Code of Federal Regulations §§ 1500-1508), as amended in 2022 (85 Federal Register 23453–23470), Defense Logistics Agency (DLA) Regulation 1000.22, *Environmental Considerations in Defense Logistics Agency Actions (April 27, 2018)*, Department of the Navy regulations for implementing the National Environmental Policy Act (32 Code of Federal Regulations § 775), and the United States Marine Corps (USMC) Environmental Compliance and Protection Program (Marine Corps Order P5090.2A), the Department of the Navy, USMC, and DLA give notice that an Environmental Assessment (EA) has been prepared and an Environmental Impact Statement is not required for the following activities at DLA Distribution Cherry Point (DLA Depot) on Marine Corps Air Station (MCAS) Cherry Point.

Proposed Action: DLA proposes to construct and operate a permanent General Purpose Warehouse (GPW) for the storage of bulk material and a material handling equipment (MHE) maintenance facility at MCAS Cherry Point in Craven County, North Carolina for use by the DLA Depot. Construction of the GPW and MHE maintenance facility would include clearing 33.3 acres of vegetation, removing existing fencing, and demolishing abandoned stormwater lines, sewer lines, structural foundations, and roadways associated with the former Hancock Village housing area. The 371,689 square-foot GPW would including three bays of general warehouse space, a controlled humidity warehouse annex, and an administrative/utility annex. The 9.347 square-foot MHE maintenance facility would include four maintenance bays, repair shops, tools and parts storage, hazardous materials storage with secondary containment, covered outdoor work areas, and external propane storage. Portions of existing access roadways (i.e., Marylou Road and Sheep Road) would be repaved. Sheep Road would be extended to provide access to the new GPW and MHE maintenance facility. Construction would result in a net increase of 15.7 acres of impervious surfaces at MCAS Cherry Point. The existing stormwater detention pond would be expanded to sustain the runoff generated from the Proposed Action. No additional personnel or truck trips would be required for operation of the GPW and MHE maintenance facility.

**Purpose and Need**: The purpose of the Proposed Action is to reduce the bulk storage deficiency at the DLA Depot, provide flexibility for future mission requirements, and improve operational efficiency to support the current and future DLA Depot mission.

The Proposed Action is needed because adequate GPW facilities are not available to support the current and future DLA Depot mission and the configuration of the existing DLA Depot storage facilities limits storage flexibility. All existing on- and off-installation storage facilities suitable for use as a GPW are fully utilized, which has resulted in the use of outdoor storage areas and environmental damage to materiel. Additionally, the Proposed Action is needed because operational efficiency is limited by the age and geographic separation of the existing DLA Depot storage facilities.

**Alternatives Analyzed**: DLA and USMC considered several action alternatives and the No Action Alternative. Based on the selection standards and the need to meet the purpose of and need for the Proposed Action, DLA and USMC selected one action alternative (Proposed Action) for detailed analysis in the EA.

<u>Proposed Action</u>. Under the Proposed Action, DLA would construct and operate a permanent, noncombustible GPW for the storage of bulk materiel and a MHE maintenance facility at MCAS Cherry Point for use by the DLA Depot. The Proposed Action would support the DLA Depot's mission to receive, store, and issue aviation components and parts in support of the 2nd Marine Aircraft Wing and Fleet Readiness Center East. The configuration of the GPW would provide flexibility for the storage of bulk materiel and MHE, facilitate maneuverability of warehouse tugs that handle oversized materiel, allow for the storage of materiel that requires a humidity-controlled environment, and ensure that warehouse personnel have the necessary support facilities. The GPW would not eliminate the entire bulk storage deficiency at the DLA Depot. It would, however, reduce the loss of materiel to environmental damage from outdoor storage and increase operational efficiency by consolidating operations into a modern and efficient facility.

<u>No Action Alternative</u>. Under the No Action Alternative, the bulk storage deficiency at the DLA Depot would not be reduced, and large quantities of materiel would continue to be subject to environmental damage in outdoor storage areas. The DLA Depot would continue to operate from aging, poorly configured, and geographically separated storage facilities that decrease mission readiness and operational efficiency. The No Action Alternative would not meet the purpose and need as described above and is not considered a reasonable alternative, although this alternative was carried forward for purposes of analyses.

**Environmental Effects**: As summarized in **Table 1**, the environmental resource areas analyzed in the EA include water resources, biological resources, geological resources, utilities and transportation, hazardous materials and wastes, air quality, noise, land use, coastal zone, and aesthetic and visual resources. Because potential impacts were negligible or nonexistent, the following resource areas were not evaluated in the EA: airspace management, cultural resources, health and safety, socioeconomics, and environmental justice. The summary of impacts is focused on the Proposed Action. The level of detail in the summary analysis is commensurate with the level of potential effect to the resource. The EA is incorporated by reference in this FONSI.

# Table 1.Summary of Potential Impacts to Resources and Impact Avoidance andMinimization

Resource Area	No Action Alternative	Proposed Action
Water Resources	No significant impacts on water resources.	<ul> <li>Short-term, minor, adverse impacts would occur from ground disturbance activities that would contribute to stormwater runoff and increased rates of erosion and sedimentation.</li> <li>Long-term, negligible to minor, adverse impacts would occur from the net loss of 33.3 acres of vegetation and net increase of 15.7 acres of impervious surfaces, which would increase stormwater runoff rates.</li> <li>Long-term, minor, adverse impacts would occur from construction activities in potentially jurisdictional open water areas (0.63 acre) and removal of potentially jurisdictional wetlands (0.27 acre). Because impacts on potentially jurisdictional open waters and wetlands are unavoidable, Section 404/401 permits would be completed to comply with Section 404/401 of the Clean Water Act and determine required mitigation.</li> </ul>
Biological Resources	No significant impacts on biological resources.	<ul> <li>Long-term, minor, adverse impacts on vegetation would occur from removal of 33.3 acres of vegetation; however, substantial changes to vegetative communities or overall habitat quality would not result.</li> <li>Long-term, negligible, beneficial impacts on wildlife could result from use of nature-based landscaping techniques.</li> <li>Short-term, minor, adverse impacts on wildlife would occur during construction as construction noise would temporarily displace wildlife within the project area vicinity.</li> <li>Long-term, negligible, adverse impacts on wildlife would occur from permanent loss of potential habitat from removal of 33.3 acres of vegetation.</li> <li>Long-term, negligible to minor, adverse impacts on federally listed threatened and endangered species would occur from construction and operation of the GPW facility.</li> </ul>
Geological Resources	No significant impacts on geological resources.	<ul> <li>Short-term, minor, adverse impacts would occur from soil disturbance and clearing of vegetation, which would contribute to increased rates of erosion and sedimentation.</li> <li>Long-term, minor, adverse impacts would occur from permanent removal of vegetation and increases in impervious surfaces, which would permanently reduce percolation rates and degrade the integrity of surrounding soil structures.</li> </ul>
Utilities and Transportation	No significant impacts on	• Short-term, minor, adverse impacts on utilities would occur from potential temporary disruptions in utility services as new facilities are connected to utility lines.

Resource Area	No Action Alternative	Proposed Action
	utilities and transportation.	<ul> <li>Long-term, negligible, adverse impacts on utilities would occur from the increase in utility demand; however, the new demand would not exceed the capacity of the utility systems.</li> <li>Short-term, minor, adverse impacts on transportation would occur from temporary increases in traffic during construction.</li> <li>Long-term, negligible, adverse impacts on transportation would occur from additional traffic accessing the southern portion of the installation, and long-term, negligible, beneficial impacts would occur as privately owned vehicle (POV) and truck traffic would be redirected to the GPW, reducing traffic in busier installation areas.</li> <li>Long-term, negligible, beneficial impacts would occur from repair and upgrade of Marylou and Sheep Roads.</li> </ul>
Hazardous Materials and Wastes	No significant impacts on hazardous materials and wastes.	<ul> <li>Short-term, negligible, adverse impacts would occur from the use of hazardous materials and petroleum products as well as the generation of hazardous wastes during construction.</li> <li>Long-term, minor, beneficial impacts would occur from proper storage of hazardous materials.</li> </ul>
Air Quality	No significant impacts on air quality.	<ul> <li>Short-term, minor, adverse impacts would occur from emissions of criteria pollutants and greenhouse gases that would be produced from operation of heavy equipment, construction worker commutes, and ground disturbance.</li> <li>Long-term, negligible, adverse impacts would occur from emissions of criteria pollutants during operation of the new GPW and associated facilities, including air emissions produced from operation of heating and cooling systems, operation of a diesel emergency generator for controlled humidity equipment, and continuation of 10 truck trips to and from the GPW.</li> </ul>
Noise	No significant impacts on noise.	<ul> <li>Short-term, minor, adverse impacts would occur from increased noise levels produced by construction equipment.</li> <li>Long-term, negligible, adverse impacts would occur from POV and truck traffic traveling to and from the new GPW daily; however, because no additional POV or truck trips would be required, existing traffic on the installation would not change. Clearing of 33.3 acres of vegetation would augment the impact of aircraft and operational noise on off-installation receptors.</li> </ul>
Land Use	No significant impacts on land use.	<ul> <li>Long-term, negligible, adverse impacts would occur from disturbance of 33.3 acres, removing a portion of the forested area on MCAS Cherry Point and reducing recreation opportunities.</li> <li>Long-term, minor, beneficial impacts on land use would occur from enhancement of the functionality and operability of DLA operations on MCAS Cherry Point.</li> </ul>

Resource Area	No Action Alternative	Proposed Action
Coastal Zone	No significant impacts on the coastal zone.	<ul> <li>Short- and long-term, negligible, adverse impacts would occur from ground disturbance during construction and permanent removal of vegetation, which would result in increased turbidity in stormwater runoff.</li> <li>The project area is outside all categories of Areas of Environmental Concern designated by the North Carolina Coastal Resources Commission; therefore, the Proposed Action would be consistent with the enforceable policies of North Carolina's Coastal Area Management Act.</li> </ul>
Aesthetic and Visual Resources	No significant impacts on aesthetic and visual resources.	<ul> <li>Short-term, minor, adverse impacts would occur from heavy construction equipment and construction activities.</li> <li>Long-term, minor, adverse impacts would occur from the change in viewshed for North Carolina Highway 101 and the City of Havelock from a forested area to a cleared, developed area.</li> <li>Long-term, negligible, beneficial impacts would be expected from demolition of the abandoned-in-place foundations as well as repaved and maintained roadways in the project area, improving the overall aesthetics.</li> </ul>

**Public Involvement**: For this Proposed Action, which would affect lands within the boundaries of MCAS Cherry Point, a Notice of Availability was published in the *New Bern Sun Journal* on April 4, 2024, to offer the public notification of the opportunity to review the Draft EA and Draft FONSI and provide comments. The Draft EA and Draft FONSI were published on the MCAS Cherry Point website (<u>https://www.cherrypoint.marines.mil/Staff/Environmental-Affairs/</u>) and placed at the Havelock-Craven County Public Library for the 30-day comment period beginning April 4, 2024, and ending May 5, 2024. Comments on the Draft EA were considered prior to finalization of the EA and the decision being made on whether or not to sign the FONSI.

**FONSI**: Based on analysis presented in the Final EA and FONSI, DLA and USMC find that implementation of the Proposed Action would not significantly impact the quality of the human or natural environment or generate significant controversy. Therefore, the preparation of an Environmental Impact Statement is not required.

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Date

Jennifer C. Davis DIRECTOR **DLA Distribution Cherry Point** 

23 SEP 2024

Date

Colonel Brendan C. Burks COMMANDING OFFICER MCAS Cherry Point

## FINAL

## ENVIRONMENTAL ASSESSMENT ADDRESSING CONSTRUCTION AND OPERATION OF A GENERAL PURPOSE WAREHOUSE

AT

## **DEFENSE LOGISTICS AGENCY DISTRIBUTION CHERRY POINT,**

## NORTH CAROLINA

Prepared for:

**Defense Logistics Agency Distribution** 



SEPTEMBER 2024

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#### ABSTRACT

Designation:	Environmental Assessment
Title of Proposed Action:	Construction and Operation of a General Purpose Warehouse
Project Location:	Marine Corps Air Station Cherry Point
Lead Agencies:	Defense Logistics Agency Distribution and U.S. Marine Corps
Cooperating Agency:	None
Affected Region:	Craven County, North Carolina
Action Proponent:	Defense Logistics Agency Distribution Cherry Point
Point of Contact:	Marine Corps Air Station Cherry Point Environmental Affairs Department Jessica Guilianelli PSC Box 8006 Cherry Point, North Carolina 28533 jessica.guilianelli@usmc.mil

#### Date:

June 2024

Defense Logistics Agency and U.S. Marine Corps have prepared this Environmental Assessment in accordance with the National Environmental Policy Act, as implemented by the Council on Environmental Quality and U.S. Marine Corps regulations for implementing the National Environmental Policy Act. The Proposed Action is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, North Carolina, for use by Defense Logistics Agency Distribution Cherry Point. This Environmental Assessment evaluated the potential environmental impacts associated with the Proposed Action and the No Action Alternative on the following resource areas: water resources, biological resources, geological resources, utilities and transportation, hazardous materials and wastes, air quality, noise, land use, coastal zone, and aesthetic and visual resources. The following resource areas were not analyzed in detail in the EA because they would have no or clearly insignificant impacts: airspace management, cultural resources, health and safety, socioeconomics, and environmental justice. No significant effects on environmental resources would occur from the Proposed Action.



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### **EXECUTIVE SUMMARY**

#### ES.1 Proposed Action

Defense Logistics Agency (DLA) proposes to construct and operate a permanent General Purpose Warehouse (GPW) for the storage of bulk materiel and a material handling equipment (MHE) maintenance facility at Marine Corps Air Station (MCAS) Cherry Point in Craven County, North Carolina, for use by DLA Distribution Cherry Point (DLA Depot). Construction of the GPW and MHE maintenance facility would include clearing 33.3 acres of vegetation; removing existing fencing; and demolishing abandoned stormwater lines, sewer lines, structural foundations, and roadways associated with the former Hancock Village housing area. The 371,689 square-foot (SF) GPW would include three bays of general warehouse space, a controlled humidity warehouse annex, and an administrative/utility annex. The 9,347 SF MHE maintenance facility would include four maintenance bays, repair shops, tools and parts storage, hazardous materials storage with secondary containment, covered outdoor work areas, and external propane storage. Portions of existing access roadways (i.e., Marylou and Sheep Roads) would be repaved. Sheep Road would be extended to provide access to the new GPW and MHE maintenance facility. Construction would result in a net increase of 15.7 acres of impervious surfaces at MCAS Cherry Point. The components of the Proposed Action are shown in Figure ES-1. No additional personnel or truck trips would be required for operation of the new GPW and MHE maintenance facility.

#### ES.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to reduce the bulk storage deficiency at the DLA Depot, provide flexibility for future mission requirements, and improve operational efficiency to support the current and future DLA Depot mission.

The Proposed Action is needed because adequate GPW facilities are not available to support the current and future DLA Depot mission and the configuration of the existing DLA Depot storage facilities limits storage flexibility. All existing on-and off-installation storage facilities suitable for use as a GPW are fully utilized, which has resulted in the use of outdoor storage areas and environmental damage to materiel. Additionally, the Proposed Action is needed because operational efficiency is limited by the age and geographic separation of the existing DLA Depot storage facilities.



Figure ES-1. Proposed Action

#### ES.3 Alternatives Considered

DLA and U.S. Marine Corps (USMC) considered several action alternatives and a No Action Alternative.

Alternatives for the Proposed Action were evaluated against selection standards:

- Provide GPW space that would reduce the bulk storage deficiency at the DLA Depot and provide flexible storage options
- Consolidate and maximize efficiency of DLA Depot operations to support current and future mission requirements
- Provide adequate acreage for a GPW and MHE maintenance facility
- Enhance and improve facility conditions for worker safety
- Occur within MCAS Cherry Point so that no personnel relocations would be needed
- Occur near existing roadways and utility mains
- Occur proximate to the Roosevelt Gate to facilitate efficient operations and minimize traffic
- Limit environmental and operational impacts and minimize the need for grading and site preparation.

Based on these selection standards as well as meeting the purpose of and need for the Proposed Action, DLA and USMC selected one action alternative for the construction and operation of a GPW for analysis in this Environmental Assessment (EA).

Under the Proposed Action, DLA would construct and operate a permanent, noncombustible GPW for the storage of bulk materiel and an MHE maintenance facility at MCAS Cherry Point for use by the DLA Depot. The Proposed Action would support the DLA Depot's mission to receive, store, and issue aviation components and parts in support of the 2nd Marine Aircraft Wing and Fleet Readiness Center East. The configuration of the GPW would provide flexibility for the storage of bulk materiel and MHE, facilitate maneuverability of warehouse tugs that handle oversized materiel, allow for the storage of materiel that requires a humidity-controlled environment, and ensure that warehouse personnel have the necessary support facilities. The GPW would not eliminate the entire bulk storage deficiency at the DLA Depot. It would, however, reduce the loss of materiel to environmental damage from outdoor storage and increase operational efficiency by consolidating operations into a modern and efficient facility.

Under the No Action Alternative, the bulk storage deficiency at the DLA Depot would not be reduced, and large quantities of materiel would continue to be subject to environmental damage in outdoor storage areas. The DLA Depot would continue to operate from aging, poorly configured, and geographically separated storage facilities that decrease mission readiness and operational efficiency. The No Action Alternative would not meet the purpose and need as described above and is not considered a reasonable alternative, although this alternative was carried forward for purposes of analyses.

### ES.4 Summary of Environmental Resources Evaluated in the EA

Council on Environmental Quality regulations, the National Environmental Policy Act (NEPA), and Department of the Navy and USMC instructions for implementing NEPA specify that an EA should address those resources areas potentially subject to impacts. The following resource areas have been analyzed in this EA: water resources, biological resources, geological resources, utilities and transportation, hazardous materials and wastes, air quality, noise, land use, coastal zone, and aesthetic and visual resources. Because potential impacts were considered to be negligible or would not occur, the following resource areas were not analyzed in this EA: airspace management, cultural resources, health and safety, socioeconomics, and environmental justice.

#### ES.5 Public Involvement

A Notice of Availability was published in the *New Bern Sun Journal* on April 4, 2024, to offer the public notification of the opportunity to review the Draft EA and provide comments. The Draft EA was made available on the MCAS Cherry Point website (<u>https://www.cherrypoint.marines.mil/</u><u>Staff/Environmental-Affairs/</u>) and placed at the Havelock-Craven County Public Library for a 30-day public comment period beginning April 4, 2024, and ending May 5, 2024. Comments on the Draft EA were considered prior to finalization of the EA and the decision being made on whether or not to sign the Finding of No Significant Impact (FONSI).

A Notice of Availability of the Final EA and FONSI was published on the installation's website and in the *New Bern Sun Journal*. The Final EA and FONSI was published on the installation's website.

### ES.6 Summary of Potential Environmental Consequences of the Proposed Action and No Action Alternatives and Avoidance and Minimization Measures

**Table ES-1** provides a tabular summary of the potential impacts on each resource area associated with the Proposed Action and No Action Alternative.

Resource Area	No Action Alternative	Proposed Action
Water Resources	The No Action Alternative would have no significant impacts on water resources.	<ul> <li>Short-term, minor, adverse impacts would occur from ground disturbance activities that would contribute to stormwater runoff and increased rates of erosion and sedimentation. A National Pollutant Discharge Elimination System (NPDES) Construction General Permit would be obtained, a site-specific Stormwater Pollution Prevention Plan (SWPPP) would be followed, and stormwater best management practices (BMPs) would be implemented to reduce sedimentation and pollution into surface waters and maintain water quality.</li> <li>Long-term, negligible to minor, adverse impacts would occur from the net loss of 33.3 acres of</li> </ul>
		vegetation and net increase of 15.7 acres of impervious surfaces, which would increase stormwater runoff rates. The existing stormwater detention pond would be expanded to accommodate the increased flow rate. To reduce the potential for pollution in nearby surface waters, pollution reduction measures, including adherence to the installation NPDES permit and SWPPP, would be implemented.
		• Long-term, minor, adverse impacts would occur from construction activities in open water areas and removal of wetlands in the form of 0.63 acre of fill impact to the stormwater detention pond and open water drainage ditches and 0.27 acre of fill/cut impacts to wetlands. Potentially jurisdictional Waters of the U.S., wetlands, and open waters would be avoided where possible. Because impacts on potentially jurisdictional wetlands and open waters are unavoidable, Section 404/401 permits would be completed to comply with Section 404/401 of the Clean Water Act and determine required mitigation.
Biological Resources	The No Action Alternative would have no significant impacts on biological resources.	• Long-term, minor, adverse impacts on vegetation would occur from removal of 33.3 acres of vegetation; however, changing vegetation cover of the project area would be insignificant to the total habitat quality of remaining forested stands within the area.
		• The permanent conversion of timber land to a maintained landscape could result in long-term, negligible, beneficial impacts from use of nature-based landscaping techniques.
		• Short-term, minor, adverse impacts on wildlife would occur during construction, as the presence of construction equipment and associated noise would temporarily displace wildlife within the project area vicinity. Wildlife would be expected to avoid the area during construction.
		<ul> <li>Long-term, negligible, adverse impacts on wildlife would occur from permanent loss of potential habitat from removal of 33.3 acres of vegetation.</li> </ul>

#### Table ES-1. Summary of Potential Impacts to Resources and Impact Avoidance and Minimization

Resource Area	No Action Alternative	Proposed Action
		• Long-term, negligible to minor, adverse impacts on federally listed threatened and endangered species would occur because no individuals of such species have been documented or are known to occur within the project area and limited suitable habitat for these species has been identified within the project area.
Geological Resources	The No Action Alternative would have no significant impacts on geological resources.	<ul> <li>Short-term, minor, adverse impacts would occur from soil disturbance and clearing of vegetation, which would contribute to increased rates of erosion and sedimentation. Standard erosion and sedimentation BMPs and control procedures (e.g., covering exposed soils, marking areas not to be disturbed) would be implemented during construction to minimize impacts on soils.</li> <li>Long-term, minor, adverse impacts would occur from permanent removal of vegetation and increases in impervious surfaces, which would permanently reduce percolation rates and degrade the integrity of surrounding soil structures. Permanent stormwater management features would be incorporated into the final design of the GPW and associated facilities, and post-construction management procedures, as identified in the installation SWPPP, would be followed to reduce impacts on soils.</li> </ul>
Utilities and Transportation	The No Action Alternative would have no significant impacts on utilities and transportation.	<ul> <li>Short-term, minor, adverse impacts on utilities would occur from potential temporary disruptions in utility services as new facilities are connected to utility lines. Solid waste generated from construction would be recycled, where possible, and managed in accordance with USMC and MCAS Cherry Point guidelines.</li> <li>Long-term, negligible, adverse impacts on utilities would occur from the increase in utility demand; however, it is not anticipated that the new demand would exceed the capacity of the utility systems.</li> <li>Short-term, minor, adverse impacts on transportation would occur from temporary increases in traffic during construction. Heavy construction equipment would remain within the project area during construction, which would minimize impacts on installation roadways.</li> <li>Long-term, negligible, adverse impacts on transportation would occur from the additional traffic accessing the southern portion of the installation, and long-term, negligible, beneficial impacts would occur, as privately owned vehicle (POV) and truck traffic that would normally access the existing DLA Depot storage facilities closer to the airfield would be redirected to the GPW, reducing traffic in busier installation areas.</li> </ul>

Resource Area	No Action Alternative	Proposed Action
		• Long-term, negligible, beneficial impacts would occur from repair and upgrade of Marylou and Sheep Roads, which would improve the degraded roadway condition and accommodate the anticipated volume of semi-truck traffic during GPW operation.
Hazardous Materials and Wastes	The No Action Alternative would have no significant impacts on hazardous materials and wastes.	<ul> <li>Short-term, negligible, adverse impacts would occur from the use of hazardous materials and petroleum products as well as the generation of hazardous wastes during construction. All hazardous materials and wastes would be contained, stored, and managed in accordance with applicable regulations. All equipment would be maintained according to the manufacturer's specifications, and drip mats would be placed under parked equipment as needed. Special hazards (i.e., asbestos-containing material and lead-based paint) identified within the project area in abandoned utility lines would be handled by certified contractors in accordance with all federal, state, and USMC regulations, and would be disposed at a U.S. Environmental Protection Agency-approved landfill.</li> <li>Long-term, minor, beneficial impacts would occur from proper storage of hazardous materials for the MHE maintenance facility indoors and in/on appropriate secondary containment. Hazardous materials would not be stored in excess of Maximum Allowable Quantities in accordance with International Building Code 307. Any hazardous materials or wastes used or generated under the Proposed Action would be handled and disposed in accordance with federal, state, and USMC guidelines.</li> </ul>
Air Quality	The No Action Alternative would have no significant impacts on air quality.	<ul> <li>Short-term, minor, adverse impacts would occur from emissions of criteria pollutants and greenhouse gases that would be produced from operation of heavy equipment, construction worker commutes, and ground disturbance. Air emissions would be localized to the project area. The net total emissions from construction would not exceed the Prevention of Significant Deterioration significance indictor for any criteria pollutant. BMPs and environmental control measures (e.g., wetting the ground surface) would be implemented to minimize emissions of fugitive dust during construction.</li> <li>Long-term, negligible, adverse impacts would occur from emissions of criteria pollutants during operation of the new GPW and associated facilities, including air emissions produced from operation of heating and cooling systems, operation of a diesel emergency generator for controlled humidity equipment, and continuation of 10 truck trips to and from the GPW. Annual emissions from operations would not exceed the Prevention of Significant Deterioration significance indicator. The new heating system (i.e., natural gas-fired boiler) and emergency</li> </ul>

Resource Area	No Action Alternative	Proposed Action
		generator would be added to the installation's Title V permit, and emissions from the new sources would be included in the installation's annual air emissions inventory.
Noise	The No Action Alternative would have no significant impacts on noise.	<ul> <li>Short-term, minor, adverse impacts would occur from increased noise levels produced by construction equipment. To reduce noise impacts, heavy equipment use would primarily occur during normal weekday business hours, mufflers would be properly maintained and in good working order, and construction workers and equipment operators would wear adequate personal protection equipment to limit noise exposure.</li> <li>Long-term, negligible, adverse impacts would occur from POV and truck traffic traveling to and from the new GPW daily; however, because no additional POV or truck trips would be required, existing traffic on the installation would not change. Clearing of 33.3 acres of vegetation would augment the impact of aircraft and operational noise on off-installation receptors; however, the community is accustomed to general aircraft and operational noise from MCAS Cherry Point and roadway noise along North Carolina Highway 101, and noise produced from GPW operations would be consistent with such noise. Revegetation of the project area would provide partial noise abatement and reduce adverse impacts.</li> </ul>
Land Use	The No Action Alternative would have no significant impacts on land use.	<ul> <li>Long-term, negligible, adverse impacts would occur from disturbance of 33.3 acres, removing a portion of the forested area on MCAS Cherry Point and reducing recreation opportunities. The GPW and associated facilities would be consistent with designated land use categories of the area and would be similar functions to existing buildings within the project area vicinity.</li> <li>Long-term, minor, beneficial impacts on land use would occur from enhancement of the functionality and operability of DLA operations on MCAS Cherry Point.</li> </ul>
Coastal Zone	The No Action Alternative would have no significant impacts on the coastal zone.	<ul> <li>Short- and long-term, negligible, adverse impacts would occur from ground disturbance during construction and permanent removal of vegetation, which would result in increased turbidity in stormwater runoff. Runoff would be managed in accordance with applicable stormwater management regulations, and sedimentation in downstream receiving waters would be minimized through BMPs and management actions. A site-specific SWPPP would be developed before the start of construction. The existing stormwater detention pond would be expanded to manage the additional stormwater runoff from the increased impervious surfaces and minimize impacts on coastal resources.</li> </ul>

Resource Area	No Action Alternative	Proposed Action
		• The project area is outside all categories of Areas of Environmental Concern designated by the North Carolina Coastal Resources Commission; therefore, the Proposed Action would be consistent with the enforceable policies of North Carolina's Coastal Area Management Act.
Aesthetic and Visual Resources	The No Action Alternative would have no significant impacts on aesthetic and visual resources.	<ul> <li>Short-term, minor, adverse impacts would occur from the presence of heavy construction equipment and construction activities. Visual impacts on viewers would be minimized by conducting work only during normal weekday hours, when viewers are less likely to be present. Impacts would be temporary, with construction producing only a minor contrast to the existing visual conditions of the area and a weak contrast to other developed portions of the installation.</li> <li>Long-term, minor, adverse impacts would occur from the change in viewshed for North Carolina Highway 101 and the City of Havelock from a forested area to a cleared, developed area. Residents and other viewers in the area are familiar with the aesthetic and visual resources of a military installation. Revegetation of the project area, including the placement of typical landscaping trees, would minimize permanent visual impacts. Siting of the GPW and associated facilities would be consistent with the 2014 <i>Marine Corps Air Station Cherry Point Master Plan</i> and the <i>Base Exterior Architecture Plan for Marine Corps Air Station Cherry Point, North Carolina</i> (MCAS Cherry Point 2014, MCAS Cherry Point 2007).</li> <li>Long-term, negligible, beneficial impacts would be expected from demolition of the abandoned-in-place foundations as well as repaved and maintained roadways in the project area, improving the overall aesthetics.</li> </ul>

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#### Appendices

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## Acronyms and Abbreviations

2D MAW	2nd Marine Aircraft Wing
ACM	asbestos-containing material
AEC	Area of Environmental Concern
AICUZ	Air Installation Compatible Use Zone
APE	Area of Potential Effects
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
CAMA	North Carolina Coastal Area Management Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibel
DLA	Defense Logistics Agency
DLA Depot	DLA Distribution Cherry Point
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DoN	Department of the Navy
EA	Environmental Assessment
EO	Executive Order
ERP	Environmental Restoration Program
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FRC	Fleet Readiness Center
GHG	greenhouse gas
gpd	gallon per day
GPW	General Purpose Warehouse
HAP	Hazardous Air Pollutant
IPaC	Information for Planning and Consultation
JSF	Joint Strike Fighter
LBP	lead-based paint
L <sub>eq</sub>	equivalent sound level
LID	low impact development

Magnuson-	Manual Otaciana Fishama Osara mating and Managara the
Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MBIA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MCO	Marine Corps Order
MHE	material handling equipment
MMPA	Marine Mammal Protection Act
MW	megawatt
NAAQS	National Ambient Air Quality Standards
NCAC	North Carolina Administrative Code
NCDEQ	North Carolina Department of Environmental Quality
NCHPO	North Carolina Historic Preservation Office
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>X</sub>	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O <sub>3</sub>	ozone
PCB	polychlorinated biphenyls
PFAS	polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PM <sub>10</sub>	particulate matter measured less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	particulate matter measured less than or equal to 2.5 microns in diameter
POV	privately owned vehicle
POW	palustrine open water
PSD	Prevention of Significant Deterioration
SDWA	Safe Drinking Water Act
SF	square foot
SOx	sulfur oxide
SWPPP	Stormwater Pollution Prevention Plan
TAP	Toxic Air Pollutant
tpy	ton per year
U.S.	United States
USC	United States Code
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USMC	U.S. Marine Corps
VOC	volatile organic compound
WWTP	wastewater treatment plant

## 1 Purpose of and Need for the Proposed Action

## 1.1 Introduction

This Environmental Assessment (EA) addresses the proposed construction and operation of a General Purpose Warehouse (GPW) at Defense Logistics Agency (DLA) Distribution Cherry Point (DLA Depot), which is located at Marine Corps Air Station (MCAS) Cherry Point, North Carolina. This EA analyzes the potential for significant environmental impacts associated with the Proposed Action and alternatives, including the No Action Alternative.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969; the 2020 Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508); the May 20, 2022, amendments of the 2020 CEQ NEPA regulations (85 *Federal Register* 23453–23470); and DLA Regulation 1000.22, *Environmental Considerations in Defense Logistics Agency Actions (April 27, 2018)*. Because DLA is a tenant on MCAS Cherry Point, a United States (U.S.) Marine Corps (USMC) installation, this EA is subject to Department of the Navy (DoN) and USMC NEPA regulations. These regulations include the DoN Regulations for Implementing NEPA (32 CFR Part 775), the USMC Environmental Compliance and Protection Program (Marine Corps Order [MCO] P5090.2A, dated June 11, 2018), and the November 2019 USMC NEPA Manual.

### 1.2 Background

MCAS Cherry Point is an approximately 29,000-acre military installation located immediately north of the town of Havelock in Craven County, North Carolina. MCAS Cherry Point is bounded by the Neuse River to the north, Hancock Creek to the east, North Carolina Highway 101 to the south, and an irregular boundary approximately 2 miles west of Slocum Creek (see **Figure 1-1**). The mission of MCAS Cherry Point is to maintain and support facilities, services, and materiel for the 2nd Marine Aircraft Wing (2D MAW), the Fleet Readiness Center (FRC) East, and other activities and units as designated by the Commandant of the USMC in coordination with the Chief of Naval Operations (MCAS Cherry Point 2021a).

DLA Distribution receives, stores, issues, and distributes materiel for the Department of Defense (DoD) and has the mission of providing agile global storage and distribution services to enable readiness (DLA 2022a). The mission of the DLA Depot is to provide support to the 2D MAW, FRC East, and multiple Marine Aviation Logistics Squadrons at MCAS Cherry Point, in addition to military and government customers worldwide. The DLA Depot provides full-service distribution support, which includes the receipt, storage, issuance, and transportation of materiel. Additionally, the DLA Depot performs all specialized preservation, packaging, and crating of materiel. This includes the operation of three preservation, packaging, packing, and marking satellite operations for FRC East, which refurbishes DoD aircraft components. These satellite operations are an integral part of the FRC East production line. Lastly, the DLA Depot supports all preservation and packaging, hazardous materials packaging, central receiving, rigging operations, ordnance transportation certification, and transportation management office requirements to all units within the local area (DLA 2022b).



Figure 1-1. MCAS Cherry Point and the Surrounding Area

The DLA Depot operates out of seven storage facilities (Buildings 145, 146, 147, 148, 150, 159, and 4246) that do not provide sufficient GPW space for the bulk storage of materiel, have configuration constraints that limit storage flexibility, and are geographically separated. Because all existing MCAS Cherry Point and nearby off-installation facilities that are suitable for use as a GPW are fully utilized, materiel is being stored outdoors where it is exposed to the weather and subject to environmental damage. The geographic separation of the existing storage facilities limits operational efficiency and increases response times. Additionally, four of the seven storage facilities were constructed between 1942 and 1943 and are in poor condition, which has resulted in high maintenance costs and personnel safety concerns. A single modern GPW would reduce the bulk storage deficiency of approximately 284,000 square feet (SF) and consolidate the operations of three outdated storage facilities (Buildings 145, 146, and 147) into one operationally and energy-efficient GPW.

#### 1.3 Purpose and Need

The purpose of the Proposed Action is to reduce the bulk storage deficiency at the DLA Depot, provide flexibility for future mission requirements, and improve operational efficiency to support the current and future DLA Depot mission.

The Proposed Action is needed because adequate GPW facilities are not available to support the current and future DLA Depot mission, and the configuration of the existing DLA Depot storage facilities limits storage flexibility. All existing on- and off-installation storage facilities suitable for use as a GPW are fully utilized, which has resulted in the use of outdoor storage areas and environmental damage to materiel. Additionally, the Proposed Action is needed because operational efficiency is limited by the age and geographic separation of the existing DLA Depot storage facilities.

### 1.4 Decision to Be Made

Based on the analysis presented in the Final EA, DLA and USMC find that implementation of the Proposed Action would not significantly impact the quality of the human or natural environment or generate significant controversy. Therefore, the preparation of an Environmental Impact Statement is not required. The determination to implement the Proposed Action as described in **Section 2.1** is documented in a Finding of No Significant Impact (FONSI).

### **1.5 Environmental Review Process**

#### 1.5.1 National Environmental Policy Act

NEPA (42 United States Code [USC] Sections 4321–4370) is a federal statute requiring the identification and analysis of potential environmental impacts associated with proposed federal actions before those actions are taken. The intent of NEPA is to help decision-makers make well-informed decisions based on an understanding of the potential environmental consequences and take actions to protect, restore, or enhance the environment.

#### 1.5.2 Key Documents

Key documents are sources of information incorporated into this EA. Documents are considered to be key because of similar actions, analyses, or impacts that may apply to this Proposed Action. CEQ guidance encourages incorporating documents by reference. Documents incorporated by reference in part or in whole include:

- Form 1391, Fiscal Year 2027 Military Construction Program, General Purpose Warehouse (Project Number DDCX2203)
- Prefinal Facility Study General Purpose Warehouse, Defense Logistics Agency Distribution Cherry Point, North Carolina, March 2022 (DLA 2022b)

#### 1.5.3 Relevant Laws and Regulations

This EA has been prepared in accordance with federal and state laws, statutes, regulations, policies, and Executive Orders (EOs) pertinent to the implementation of the Proposed Action, including the following:

- NEPA (42 USC Sections 4321–4370h)
- CEQ Regulations for Implementing the Procedural Provisions of NEPA, as amended (40 CFR Parts 1500–1508)
- DLA Regulation 1000.22, Environmental Considerations in Defense Logistics Agency Actions (April 27, 2018)
- DoN Regulations for Implementing NEPA (32 CFR Part 775)
- MCO P5090.2A, USMC Environmental Compliance and Protection Program, Volume 12
- Clean Air Act of 1963, as amended (42 USC Section 7401 et seq.)
- Clean Water Act (CWA) of 1973, as amended (33 USC Section 1251 et seq.)
- Safe Drinking Water Act (SDWA) of 1974, as amended (42 USC Section 300f et seq.)
- Coastal Zone Management Act (CZMA) (16 USC Section 1451 et seq.)
- National Historic Preservation Act (NHPA) (54 USC Section 306108 et seq.)
- Endangered Species Act (ESA) (16 USC Section 1531 et seq.)
- Migratory Bird Treaty Act (MBTA) (16 USC Section 703-712)
- Bald and Golden Eagle Protection Act (BGEPA) (16 USC Section 668-668d)
- Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), as amended (16 USC Section 1801 et seq.)
- Marine Mammal Protection Act (MMPA) (16 USC Section 1361 et seq.)
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

A description of the Proposed Action's consistency with these laws, statutes, regulations, policies, and EOs, as well as the names of regulatory agencies responsible for their implementation, is presented in **Section 5.1**.

#### 1.5.4 Public Involvement

NEPA requirements help ensure that environmental information is made available to the public during the decision-making process and prior to actions being taken. A premise of NEPA is that the quality of federal decisions will be enhanced if proponents provide information to the public and involve the public in the planning process.

A Notice of Availability was published in the *New Bern Sun Journal* on April 4, 2024, to offer the public notification of the opportunity to review the Draft EA and provide comments. A copy of the newspaper notice is included in **Appendix A**. The Draft EA was made available on the MCAS Cherry Point website (<u>https://www.cherrypoint.marines.mil/Staff/Environmental-Affairs/</u>) and placed at the Havelock-Craven County Public Library for a 30-day public comment period beginning April 4, 2024 and ending May 5, 2024. No public comments were received during the comment period.

#### 1.5.5 Agency Consultation and Permit Requirements

EO 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416 with the same title and supplemented by EO 13132, *Federalism*, requires federal agencies to provide opportunities for consultation (or input) by elected officials of state and local governments that would be directly affected by a federal proposal. In compliance with NEPA, DLA and USMC have provided relevant government agencies and stakeholders, as appropriate, with the Draft EA and Draft FONSI and solicited their comments. **Appendix A** includes documentation of the coordination with government agencies contacted for this EA and comments received. Agency comments on the Draft EA and Draft FONSI were considered prior to finalization of the EA and the decision of whether or not to sign the FONSI.

This EA was provided to the North Carolina State Clearinghouse for intergovernmental review and comment. Responses were received from the North Carolina Departments of Environmental Quality, Natural and Cultural Resources, Public Safety, and Transportation. Based on the comments provided, no changes to the EA were deemed necessary. The North Carolina State Clearinghouse included review pursuant to Section 106 of the NHPA by the North Carolina Historic Preservation Office (NCHPO). The Proposed Action is expected to have no effect on archaeological, historic architectural, or Native American resources because the project area has been previously disturbed, has a low probability for prehistoric/historic archaeological resources, and does not contain any known cultural resources. In a letter dated April 26, 2024, the NCHPO stated that they are aware of no historic resources which would be affected by the project and have no comment on the project as proposed. All North Carolina State Clearinghouse responses received are included in **Appendix A**.

Informal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the ESA and BGEPA was initiated through the USFWS Information for Planning and Consultation (IPaC) system. The federal determination key results for the northern long-eared bat (*Myotis* 

*septentrionalis*) were submitted by the DoD on November 16, 2023, through IPaC, and a selfcertification package (dated November 30, 2023) with biological determinations for all listed species was submitted via email to the USFWS Raleigh Field Office on December 1, 2023. The USFWS Raleigh Field Office followed up in June 2024 with results of a newly developed joint northern long-eared bat and tricolored bat (*Perimyotis subflavus*) determination key. In a letter dated June 21, 2024, USFWS concurred with biological determinations for all listed species and stated that the requirements of Section 7 of the ESA have been satisfied. Lastly, consultation with the National Marine Fisheries Service under Section 7 of the ESA and the Magnuson-Stevens Act is not necessary because the Proposed Action would not affect ESA-listed marine mammals or essential fish habitat. **Appendix A** includes documentation of all agency correspondence for this EA.

DLA and USMC will coordinate or consult with the U.S. Army Corps of Engineers (USACE) and the North Carolina Department of Environmental Quality (NCDEQ) through the permitting process associated with the Proposed Action.

## 2 Proposed Action and Alternatives

NEPA and CEQ regulations mandate the consideration of reasonable alternatives to proposed actions. "Reasonable alternatives" are those that also could be used to meet the purpose of and need for a proposed action.

The NEPA process is intended to support flexible, informed decision-making. The analysis provided by this EA and feedback from the public and other agencies will inform decisions made about whether, when, and how to execute the Proposed Action. Among the alternatives evaluated is a No Action Alternative. The No Action Alternative is carried forward for analysis to provide a baseline against which impacts from the action can be assessed.

### 2.1 Proposed Action

The Proposed Action is to construct and operate a permanent, noncombustible GPW for the storage of bulk materiel and a material handling equipment (MHE) maintenance facility at MCAS Cherry Point for use by the DLA Depot. The Proposed Action would reduce the bulk storage deficiency at the DLA Depot, reduce the loss of materiel to environmental damage from outdoor storage, and consolidate DLA Depot operations into a modern and efficient facility. The project area is bounded by the MCAS Cherry Point airfield to the north, a stormwater detention pond to the east, North Carolina Highway 101 to the south, and Building 4930 to the west (see **Figure 2-1**). The project area partially coincides with the former Hancock Village housing area and a forested area. The proposed location of the GPW is consistent with the 2014 *Marine Corps Air Station Cherry Point Master Plan* (DLA 2022b, MCAS Cherry Point 2014).

**Construction.** Under the Proposed Action, site preparation includes clearing 33.3 acres of vegetation; removing 3,000 feet of existing fencing; and demolishing abandoned stormwater lines, sewer lines, structural foundations, and roadways associated with the former Hancock Village housing area (DLA 2022b). The project area includes merchantable timber (i.e., trees that have value for sale) and nonmerchantable trees, roots, limbs, stumps, and other vegetation. Merchantable timber is considered real estate; therefore, MCAS Cherry Point conducted commercial timber harvesting to remove the merchantable timber from the project area between spring 2022 and early 2023. Nonmerchantable vegetation would be cleared and grubbed prior to the development of the project area. Temporarily disturbed areas would be revegetated following completion of construction. Demolition of the existing DLA Depot storage facilities that the GPW would replace (i.e., Buildings 145, 146, and 147) would be completed through separate DoD Facilities Sustainment, Restoration, and Modernization program projects.

The 371,689 SF GPW would include three bays of general warehouse space (totaling 348,350 SF), a 13,000 SF controlled humidity warehouse annex, and a 10,339 SF administrative/utility annex. The GPW would have a 26-foot clear stacking height; weather-sealed truck doors; loading/unloading docks with dock levelers; fire riser rooms and protection features; mechanical, electrical, and telecommunications support spaces; and exterior canopies. The administrative/utility annex would consist of office space, restrooms, locker rooms, an employee lunch/break room, and a utility service area.



Figure 2-1. Proposed Action Overview
The 9,437 SF MHE maintenance facility would contain four maintenance bays, carpentry and welding shops, tools and parts storage, administrative space, restrooms, utility spaces, a covered outdoor work area, canopies, and external propane storage. Hazardous materials used for MHE maintenance would be stored in/on appropriate secondary containment inside the MHE maintenance facility. Supporting infrastructure would include all utilities, stormwater drainage, site lighting, pavement (access roadways, hardstand aprons, parking, and sidewalks), landscaping, security fencing, and related site improvements (DLA 2022b).

Utility capacities at MCAS Cherry Point are adequate to support the GPW and MHE maintenance facility. The domestic and fire suppression water supply, sanitary sewer, natural gas, underground communications, and underground electric utilities would be extended to the facility from utility main lines within the project area vicinity. Additionally, stormwater inlets and a stormwater drainage ditch would be constructed within the project area. The stormwater drainage ditch would begin at the Sheep Road tie-in connection, wrap around the facility, and route to the existing stormwater detention pond to the east of the proposed GPW. The existing stormwater detention pond to sustain the runoff generated from the Proposed Action. The integration of the utilities and stormwater infrastructure into the existing systems would be coordinated with the Facilities Directorate, MCAS Cherry Point (DLA 2022b).

Portions of the existing access roadways (Marylou and Sheep Roads) would be repaired to provide access to the project area. Marylou and Sheep Roads would be milled down 2 inches and receive a 2-inch overlay of new asphalt. Sheep Road would be extended to provide a new roadway within the project area. The new roadway would consist of 2 inches of new asphalt over 8 inches of graded base material. Construction vehicles would access MCAS Cherry Point via the Roosevelt Gate and follow a route along Cunningham Boulevard, Marylou Road, and Sheep Road before reaching the new roadway within the project area. Additional new pavements within the project area would include concrete aprons on the eastern and western sides of the GPW for truck loading and unloading, long-term truck and privately owned vehicle (POV) parking lots, and sidewalks. All parking, sidewalks, and building access points would be Americans with Disabilities Act compliant (DLA 2022b).

Design of the GPW and MHE maintenance facility would be consistent with MCAS Cherry Point Base Exterior Architecture Plan guidelines and would meet necessary security and vehicle standoff requirements specified in Unified Facilities Criteria 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*. Sustainable principles, including life-cycle cost-effective practices, low impact development (LID; such as bioswales and rain gardens), and energy conservation measures, would be integrated into the development, design, and construction of the Proposed Action (DLA 2022b, MCAS Cherry Point 2007).

Construction activities would disturb approximately 33.3 acres (see **Table 2-1**), remove approximately 0.7 acre of impervious surface (existing roads), and add approximately 16.4 acres of impervious surface (buildings, parking, new roadway, and sidewalk pavement), resulting in an overall increase of approximately 15.7 acres of impervious surface (DLA 2022b). The roadway proposed for repair would remain impervious; therefore, it would not change the quantity of impervious surface.

Proposed Disturbance/Construction	SF	Acres	Type of Surface
Buildings (GPW and MHE Maintenance Facility)	381,126	8.75	Impervious
Parking, Roadway, and Sidewalk Pavement	331,611	7.61	Impervious
Roadway Repair	145,185	3.33	Impervious
Stormwater Drainage Ditch	70,965	1.63	Pervious
Stormwater Detention Pond Expansion	279,198	6.41	Pervious
Remaining disturbance area from site preparation, landscaping, utility extensions, etc. (includes removal of 0.7 acre of roads)	242,629	5.57	Pervious
Total	1,450,714	33.3	_

#### Table 2-1.Disturbance Areas from the Proposed Action

A wetland delineation was conducted in 2022 to assess the extent of wetlands, open waters, and streams within and adjacent to the project area. The project area includes the following potentially jurisdictional features: a 4.41-acre stormwater detention pond (open waters), 0.57 acre (2,753 linear feet) of open water and culverted drainage ditches, and 0.27 acre of wetlands. An additional 7.77 acres of wetlands are immediately northeast of the project area (HDR 2022a). Based on preliminary design, impacts would include 0.63 acre of fill impact to the stormwater detention pond and open water drainage ditches, and 0.27 acre of wetlands. CWA Section 401 and 404 permits for open water and wetland impacts would be required from USACE and NCDEQ prior to the start of construction. Construction would occur between 2027 and 2029, and the proposed GPW and MHE maintenance facility would be operational in 2031 (DLA 2022b).

**Operations.** The proposed GPW would support the DLA Depot's mission to receive, store, and issue aviation components and parts in support of the 2D MAW and FRC East. The proposed GPW configuration would provide flexibility for the storage of bulk materiel and MHE, facilitate maneuverability of warehouse tugs that handle oversized materiel, allow for the storage of materiel that requires a humidity-controlled environment, and ensure that warehouse personnel have the necessary support facilities. The GPW would not eliminate the entire bulk storage deficiency at the DLA Depot. It would, however, reduce the loss of materiel to environmental damage from outdoor storage and increase operational efficiency by consolidating operations into a modern and efficient facility. The MHE maintenance facility would contribute to this efficiency by supporting the MHE needs of the GPW (DLA 2022b).

No additional personnel would be hired to support the Proposed Action. Personnel would be transferred from the existing DLA Depot storage facility operations on MCAS Cherry Point. Approximately 96 personnel would work in the GPW at a time (60 in the general purpose or controlled humidity storage areas and 36 in the administrative/utility annex), and there would be approximately 4 MHE maintenance facility personnel (DLA 2022b). Although no additional personnel and truck trips would be required, the Proposed Action would increase truck and POV traffic along the existing roadways that provide access to the project area as well as reduce truck and POV traffic along the existing roadways that provide access to the warehouses currently used by DLA. Anticipated truck traffic for the GPW is 10 trucks per day (incoming and

departing). Trucks and POVs would use the same route as construction vehicles to access the project area.

# 2.2 No Action Alternative

The No Action Alternative serves as a baseline against which the impacts of the Proposed Action and other potential action alternatives can be evaluated. Under the No Action Alternative, the bulk storage deficiency at the DLA Depot would not be reduced, and large quantities of materiel would continue to be subject to environmental damage in outdoor storage areas. The DLA Depot would continue to operate from aging, poorly configured, and geographically separated storage facilities that decrease mission readiness and operational efficiency. The No Action Alternative would not meet the purpose of and need for the action as described in **Section 1.3**.

# 2.3 Alternatives Considered but Eliminated from Detailed Analysis

Considering alternatives helps to avoid unnecessary impacts and allows for an analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be suitable for decision-making, capable of implementation, and sufficiently satisfactory with respect to meeting the purpose of and need for the action. CEQ defines reasonable alternatives as those that are economically and technically feasible.

DLA and USMC developed the following selection standards for the evaluation of potential alternatives to the Proposed Action. A potential alternative must:

- Provide GPW space that would reduce the bulk storage deficiency at the DLA Depot and provide flexible storage options
- Consolidate and maximize efficiency of DLA Depot operations to support current and future mission requirements
- Provide adequate acreage for a GPW and MHE maintenance facility
- Enhance and improve facility conditions for worker safety
- Occur within MCAS Cherry Point so no personnel relocations would be needed
- Occur near existing roadways and utility mains
- Occur proximate to the Roosevelt Gate to facilitate efficient operations and minimize traffic
- Limit environmental and operational impacts as well as minimize the need for grading and site preparation

Under NEPA, action proponents must consider and analyze reasonable alternatives to the Proposed Action. DLA and USMC considered various alternatives, including renovating the existing DLA Depot or MCAS Cherry Point facilities, using a mix of renovation and new

construction, using existing facilities on MCAS Cherry Point, and leasing an off-installation warehouse for use as a GPW within the local area.

The renovation of existing DLA Depot warehouse facilities (with a combined total of 110,456 SF of warehouse space) would not result in a net decrease in the bulk storage deficit at the DLA Depot nor address configuration constraints that limit storage flexibility. Additionally, no MCAS Cherry Point facilities are available for renovation that could serve as a GPW. A combination of renovation and new construction would have the same issues discussed for renovation alone, and the existing DLA Depot storage facilities are in areas where additions would not be feasible due to the surrounding development and/or land uses. Outside the project area, no undeveloped areas exist on MCAS Cherry Point with the space needed to support the Proposed Action. Lastly, no MCAS Cherry Point facilities are available for use as a GPW in their existing condition. Therefore, these three alternatives (i.e., renovation, mix of renovation and new construction, and use of existing facilities at MCAS Cherry Point) were eliminated from analysis in the EA because they fail to meet one or more of the selection standards.

Off-installation warehouses have been leased by the DLA Depot out of necessity to reduce its bulk storage deficiency. The only available off-installation warehouses within the local area that would meet the size and configuration requirements of the GPW space needed to accomplish the DLA Depot mission (one in Greenville, North Carolina, and the another in Newport, North Carolina) are already being leased by the DLA Depot and are at full capacity. The use of the leased off-installation warehouses has further decreased the operational efficiency of the DLA Depot's operations by increasing the geographic separation between storage facilities. Additionally, the receipt, storage, and issuing of bulk materiel (e.g., aircraft parts) is an inherently governmental function that requires security and close coordination with and access to MCAS Cherry Point. Therefore, the use of an off-installation warehouse would not consolidate or maximize the efficiency of DLA Depot operations. Lastly, the use of an off-installation warehouse could require the relocation of DLA Depot personnel. For these reasons, the leasing of an off-installation warehouse was eliminated from analysis in this EA because it fails to meet several selection standards (DLA 2022b).

# 3 Affected Environment and Environmental Consequences

This section describes the existing environmental conditions and the analysis of potential consequences from implementing the Proposed Action or the No Action Alternative, as described in **Section 2**.

The information and data presented in this section are commensurate with the importance of the potential impacts to provide the proper context for evaluating impacts. Both short- and long-term impacts are addressed where applicable.

All potentially relevant environmental resources were initially considered for analysis in this EA. In compliance with NEPA, CEQ NEPA regulations, and 32 CFR Part 775, this section focuses only on the resources considered potentially subject to impacts from the Proposed Action and the No Action Alternative. **Sections 3.1** through **3.10** present the existing environmental conditions and potential environmental consequences from the Proposed Action for these resources: water resources, biological resources, geological resources, utilities and transportation, hazardous materials and wastes, air quality, noise, land use, coastal zone, and aesthetic and visual resources. A summary of the potential impacts on the analyzed resources that may result from the Proposed Action and No Action Alternative as well as impact avoidance and minimization is presented in **Section 3.11**. Resources that have been eliminated from further detailed analysis in this EA and the rationale for eliminating them are as follows.

**Airspace Management.** The Proposed Action would not include aircraft operations nor any structures or equipment that would encroach on airfield safety clearances, obstruct air navigation, change flight patterns or operations, modify airspace configurations, or alter airspace management procedures. The project area is not within the clear zones or accident potential zones associated with the runways at MCAS Cherry Point. Therefore, the Proposed Action would not affect existing airspace configurations, use, capacity, or management procedures, and a detailed airspace management analysis is not included in this EA.

*Cultural Resources.* The Proposed Action would not adversely affect cultural resources at MCAS Cherry Point. The Area of Potential Effect (APE) for the Proposed Action is the approximately 33.3-acre site and areas immediately adjacent and within sight of the project area. As documented in the *Integrated Cultural Resources Management Plan* for MCAS Cherry Point, 1,369 acres of the installation have undergone intensive Phase I cultural resource surveys. Approximately 6.6 acres of the project area has undergone Phase I cultural resource surveys and no sites were identified as eligible for listing in the National Register of Historic Places (NRHP). An Archaeological Disturbance Assessment model was developed for MCAS Cherry Point in 2012 for all areas of MCAS Cherry Point that had not previously been subject to Phase I site identification surveys (MCAS Cherry Point 2018a).

Approximately 14.2 acres of the project area have been identified as being disturbed to such an extent that subsurface integrity is lacking, and additional archaeological work is very unlikely to yield significant results. The remaining 12.5 acres of the project area have been identified as

minimally disturbed. The majority of this 12.5-acre area (approximately 9 acres) is disturbed from construction related to the existing stormwater drainage ditch and detention pond. In addition, a low probability exists for prehistoric/historic archaeological resources to occur within the project area. The closest NRHP-eligible archaeological site is more than 2.5 miles north of the project area. As such, no architectural resources or sites likely to retain archaeological integrity exist within the APE (MCAS Cherry Point 2018a).

A total of 931 historic buildings were identified in the Historic Structure Inventory of MCAS Cherry Point and its administered properties. Of these, the Bachelor Enlisted Quarters (Buildings 200–205, 207, 218, and 234), the Officer Housing Historic District (Buildings 300–349, 486, and 492–497), and Building 250, a Cold War-era aviation hangar, were considered eligible for listing in the NRHP. None of the NRHP-eligible buildings were located in the project area. The nine Bachelor Enlisted Quarters were demolished following intensive investigation and recordation in 1995 in consultation with NCHPO. The closest NRHP-eligible architectural site to the APE is Building 250, which is approximately 1.5 miles north of the project area. No buildings currently exist within the project area. Two buildings, Buildings 4930 and 4841, are 0.03 mile north and 0.13 mile east of the project area, respectively, and are within sight of the project area. Building 4930, constructed in 2014, and Building 4841, constructed in 2010, are not of historical age. An additional seven buildings are adjacent to the project area but not within sight of the project area. As such, no buildings nor other structures of historic architectural significance exist within the APE (MCAS Cherry Point 2018a and MCAS Cherry Point 2020).

One federally recognized Native American Tribe is within North Carolina, the Eastern Band of the Cherokee Indians of North Carolina; however, the Tribe has no land area claims in Craven County. MCAS Cherry Point is required to consult with Native American Tribes prior to planned excavation of Native American graves and associated objects, or in the event Native American remains or objects are discovered under the Native American Graves Protection and Repatriation Act. Because the Eastern Band of the Cherokee Indians of North Carolina has no land area claims on MCAS Cherry Point and no known Native American burial sites exist within or near the project area, Tribal consultation would not be required. Because the entire project area has been identified as previously disturbed, inadvertent discovery of Native American remains or objects from implementation of the Proposed Action is not likely (MCAS Cherry Point 2018a).

Disturbance would be limited to the project area, and no effects on known cultural resources would occur from the Proposed Action because no known cultural resources are within the APE. Furthermore, the project area has been previously disturbed, and no archaeological resources are expected. Although no ground disturbing activities nor construction would occur in proximity to any known archaeological sites, the inadvertent discovery of archaeological deposits during construction activities is a possibility and would require notifying the MCAS Cherry Point Cultural Resources Manager as well as NCHPO, Advisory Council on Historic Preservation, and Native American Tribes, as applicable, in compliance with the MCAS Cherry Point *Integrated Cultural Resources Management Plan* standard operating procedures (MCAS Cherry Point 2018a) for the unanticipated discovery of archaeological sites and materials. In an event such

as this, all work would cease until approved to continue by the MCAS Cherry Point Cultural Resources Manager.

This EA was provided to the North Carolina State Clearinghouse for review and comment, which includes review pursuant to Section 106 of the NHPA by the NCHPO. The NCHPO had no comment on the EA. **Appendix A** includes documentation of all agency correspondence for this EA.

*Health and Safety.* The Proposed Action would not result in appreciable impacts on human health and safety. To minimize the probability of injury, the DLA Depot, MCAS Cherry Point, contractors, and construction personnel would follow applicable federal, state, DoN, and USMC regulatory requirements during construction and operation of the GPW. All site preparation and construction activities would be coordinated with the MCAS Cherry Point Safety Office before initiation of such activities. DLA Depot and MCAS Cherry Point personnel and contractors would be required to wear appropriate personal protective equipment, including ear protection, safety-toed shoes, hard hats, eye protection, and gloves, when required. Construction contractors would adhere to applicable federal and state regulations during the handling of potentially contaminated materials (e.g., asbestos-containing material [ACM], lead-based paint [LBP], and polychlorinated biphenyls [PCB]) and would follow applicable procedures if working in hazardous areas.

A portion of Marylou Road proposed for repair is within the Clear Zone associated with the southwestern end of the northeast-southwest runway (Runway 5R-23L); however, no operational changes to Marylou Road are proposed and therefore no impacts on operational safety would occur. Construction workers would adhere to applicable safety regulations, such as MCO 11010.16A, *Air Installations Compatible Use Zones Program* (AICUZ). The project area is not within any other accident potential zones associated with MCAS Cherry Point runways nor explosive safety quantity distance arcs associated with munitions storage areas. The proposed GPW would be compatible with flight and explosives safety standoff distances. Temporary perimeter fencing would be established around the disturbance area to separate construction activities from the installation population and the public as well as maintain security standards. . Long-term, negligible, beneficial impacts on human health and safety under the Proposed Action would occur from upgrading the work environment for DLA Depot personnel to provide safe and efficient storage that would reduce the risks of slips, trips, and falls, alleviating existing operational and safety issues. Health and safety would not be adversely affected by the Proposed Action; therefore, a detailed health and safety analysis is not included in this EA.

**Socioeconomics.** Construction personnel and materials required for site preparation and construction of the GPW would result in short-term, negligible, beneficial impacts on employment and the local economy through increased employment and the purchase of goods and services; however, the socioeconomic impacts would be localized to the project area, and it is unlikely any economic impacts would be perceptible within the greater areas of Craven County or eastern North Carolina. As of 2020, it was estimated the construction labor force within Craven County and surrounding counties (i.e., Beaufort, Carteret, Jones, Lenoir, Pamlico, and Pitt) included 14,317 workers (USCB 2022a), which would provide sufficient capacity to

support construction of the proposed GPW. Construction workers would commute daily to the project area; therefore, no construction workers would be required to relocate to the area, and no impacts on the local population would occur. Operation of the GPW would not require additional personnel, as personnel already working at the DLA Depot would report to the new GPW, and no jobs would be created or lost by operation of the GPW. Long-term impacts on regional demographics, such as population, employment, and economic activity, and demand for public services would not occur. Therefore, a detailed analysis of socioeconomics is not included in this EA.

**Environmental Justice.** EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, and EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, require all federal agencies to address the potential effects of policies on minorities, low-income populations, and children. The project area and the surrounding community (i.e., Havelock) do not have a meaningfully higher proportion of environmental justice populations (i.e., minority and low-income) nor sensitive populations (i.e., children and the elderly) compared to the reference populations of Craven County and North Carolina (USCB 2022b). Impacts from the Proposed Action would be limited to the project area and immediately adjacent areas, and off-installation minority, low-income, or sensitive populations would not be expected to experience disproportionately high and adverse human health and environmental effects. As described in this EA, best management practices (BMPs) and other measures would be implemented to reduce or eliminate air emissions, noise, and increased vehicle traffic from construction and operation of the GPW. Therefore, a detailed environmental justice analysis is not included in this EA.

# 3.1 Water Resources

Water resources include groundwater, surface water, wetlands, floodplains, and stormwater. Groundwater is water that flows or collects beneath the Earth's surface, filling the porous spaces in soil, sediment, and rocks. A deposit of subsurface water that is large enough to tap via a well is referred to as an aquifer. Groundwater originates from precipitation, percolates through the ground surface, and is often used for potable water consumption, industrial application, and agricultural irrigation. Groundwater is typically characterized by aquifer capacity, depth from the surface, water quality, recharge rates, and surrounding geologic composition.

Surface water includes all lakes, ponds, rivers, streams, and impoundments within a defined area or watershed. Surface water is important for its contributions to the economic, ecological, recreational, and human health of a community or locale.

Wetlands are jointly defined by the U.S. Environmental Protection Agency (USEPA) and USACE as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include "swamps, marshes, bogs and similar areas" (33 CFR Part 328.3).

Floodplains are areas of low-level ground present along rivers, stream channels, large wetlands, or coastal waters. Floodplain ecosystem functions include natural moderation of floods, flood storage and conveyance, groundwater recharge, and nutrient cycling. Floodplains also help to maintain water quality and are often home to a diverse array of plants and animals. Flood potential is evaluated by the Federal Emergency Management Agency, which defines 100- and 500-year floodplains. The 100-year floodplain is the area that has a 1 percent chance of inundation by a flood event in a given year, while 500-year floodplains have a 0.2 percent chance of inundation in a given year.

Stormwater can be defined as excess water resulting from weather and storm events. Stormwater runoff is a contributor to increased erosion and sedimentation along waterways, including streams, rivers, and water retention areas. Stormwater runoff can become more severe in areas with impervious surface cover because stormwater is unable to infiltrate impervious surfaces as efficiently as areas with permeable cover.

# 3.1.1 Regulatory Setting

Surface water quality is protected through several laws and regulations. Water quality standards are regulated by USEPA, under the SDWA and the CWA. The SDWA (42 USC Section 300f et seq.) established the protection of all waters actually or potentially designated for drinking water from above and underground sources as well as authorizes USEPA to establish standards for the protection of tap water from owners or operators of public water systems. The CWA (33 USC Section 1251 et seq., as amended) established federal limits, through the National Pollutant Discharge Elimination System (NPDES), on the amounts of specific pollutants that can be discharged to surface waters to restore and maintain the chemical, physical, and biological integrity of the water. The North Carolina NPDES stormwater program requires construction site operators engaged in clearing, grading, and excavating activities that disturb 1 acre or more to obtain coverage under an NPDES Construction General Permit for stormwater discharges. Construction or demolition that necessitates an individual permit also requires preparation of a Notice of Intent to discharge stormwater and a site-specific Stormwater Pollution Prevention Plan (SWPPP) to be implemented during construction. The 2010 Final Rule for the CWA, Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category, requires implementation of non-numeric erosion and sediment controls as well as pollution prevention measures for permitted activities.

USACE regulates wetlands under Section 404 of the CWA as a subset of all "Waters of the U.S." Waters of the U.S. are defined as (1) traditional navigable waters; (2) all interstate waters and interstate wetlands; (3) all other waters that could affect interstate or foreign commerce; and (4) all impoundments of Waters of the U.S., including tributaries and wetlands adjacent to Waters of the U.S. (USEPA 2022a). EO 11990, *Protection of Wetlands*, requires that federal agencies adopt a policy to avoid, to the extent possible, adverse impacts associated with destruction and modification of wetlands as well as avoid the direct and indirect support of new construction in wetlands whenever a practicable alternative exists.

The CWA requires that North Carolina establish a Section 303(d) list to identify impaired waters and establish Total Maximum Daily Loads for the sources causing the impairment. A Total

Maximum Daily Load is the maximum amount of a pollutant that a waterway can contain while still meeting water quality standards.

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredge or fill into wetlands and other Waters of the U.S. Any discharge of dredge or fill into Waters of the U.S. also requires a permit from the USACE.

The federal requirements for floodplains and floodways are specified at 44 CFR Sections 60.3(d) and 65.12. Regulations in 44 CFR Section 60.3 are intended to address the need for effective floodplain management and provide assurance that the cumulative effects of floodplain encroachment do not cause more than a 1-foot rise above the floodplain identified on the Flood Insurance Rate Map. EO 11988, *Floodplain Management* (42 *Federal Register* 26951), requires federal agencies to avoid, to the extent possible, the adverse impacts from the occupancy and modification of floodplains as well as avoid direct and indirect support of floodplain development unless it is the only practicable alternative. Flood potential of a site is generally determined by the 100-year floodplain.

Section 438 of the Energy Independence and Security Act established storm water design requirements for development and redevelopment projects. Under these requirements, federal facility projects larger than 5,000 SF must "maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow."

The NCDEQ Department of Water Resources implements riparian buffer regulations that are specific to each watershed area. Activities conducted near intermittent streams, perennial streams, lakes, ponds, and reservoirs within the Neuse River Basin are required to adhere to riparian buffer rules (NCDEQ 2020). The Neuse River Basin rules require a total buffer of 50 feet, consisting of a 30-foot vegetated buffer from the water level (zone 1), where limited activity is allowed, and a 20-foot vegetated buffer beginning at the outer edge of zone 1, where grading and limited activity is allowed (15A North Carolina Administrative Code [NCAC] 02B.0714). Wetlands, drainage ditches, and stormwater detention ponds are not covered by the NCDEQ Department of Water Resources riparian buffer rules.

# 3.1.2 Affected Environment

*Groundwater.* The Castle Hayne Aquifer, which underlies MCAS Cherry Point, is a major source of freshwater in eastern portions of the coastal plain and is one of the most productive aquifers in North Carolina (NCDENR 2010). MCAS Cherry Point contains 23 wells that draw from the Castle Hayne Aquifer, and the installation has a withdrawal capacity of approximately 4 million gallons per day (gpd) (MCAS Cherry Point 2014). The Castle Hayne Aquifer ranges from 6 to 1,105 feet in thickness, averaging 165 feet. The Castle Hayne Aquifer is composed of mostly limestone, sandy limestone, and sand (NCDENR 2010). Depth to groundwater within the project area ranges from approximately 100 to 160 feet (USGS 2020).

*Surface Water.* MCAS Cherry Point is within the Neuse River Basin watershed. The Neuse River Basin covers more than 6,200 square miles, including both land and open water areas.

Headwaters of the Neuse River Basin are freshwater from Pamlico Sound north to New Bern, North Carolina, where the watershed broadens and assumes estuarine characteristics (NCDEQ 2022a). MCAS Cherry Point is bounded by the Neuse River to the north, Slocum Creek to the west, and Hancock Creek to the east, as shown in **Figure 3-1**. Both Slocum and Hancock Creeks flow north and discharge to the Neuse River.

A wetland and stream delineation was conducted within the project area and surrounding areas in August 2022. An approximately 4.41-acre stormwater detention pond (Pond A) and 0.57 acre (2,753 linear feet) of open water and culverted drainage ditches, represented by five palustrine open water (POW) areas, are connected to the pond (Pond A) and located within the central and eastern portions of the project area. These water features are considered non-wetland Waters of the U.S by USACE definition. Pond A is classified as Palustrine Unconsolidated Bottom and is located to the east of the proposed GPW. POW A, POW B, POW C, and POW D all flow into Pond A and POW E is the outlet from Pond A. POW D has a culvert section of 331 linear feet (0.05 acre) that connects to Pond A. POW C and POW D have concrete-bottomed lengths of 16 linear feet (0.004 acre) and 15 linear feet (0.003 acre), respectively. During the agency site visit on August 8, 2023, USACE verified the accuracy of the delineation of Pond A and the five man-made open water ditches (POW A through E) (see **Figure 3-1**).

Unnamed tributaries are given the same stream classification as their receiving waters. The unnamed tributaries within the project area drain to the Shop Branch Stream, designated as Class SC waters, or "Aquatic Life, Secondary Contact Recreation, Tidal Salt Water," with supplemental classification as Swamp Water and Nutrient Sensitive Waters (HDR 2022a).

The open waters (i.e., stormwater detention pond and drainage ditches) within the project area are not within the jurisdiction of the NCDEQ Department of Water Resources riparian buffer rules because they aren't streams and aren't on the Natural Resources Conservation Service map or the U.S. Geological Survey map.

Wetlands. As previously noted, a wetland delineation was conducted in August 2022 to assess the extent of wetlands and streams within and adjacent to the project area. The wetland delineation study area is shown on **Figure 3-1**. During the wetland delineation, one potentially jurisdictional wetland (WA-1/WA-2) was identified within the study area. This 8.04-acre wetland is a potentially jurisdictional wetland Waters of the U.S. and is classified as Palustrine Emergent, Palustrine Scrub-Shrub, and Palustrine Forested. The project area includes 0.27 acre of the potentially jurisdictional wetlands, while the remaining 7.77 acres of potentially jurisdictional wetlands are immediately northeast of the project area (HDR 2022a). A Preliminary Jurisdictional Determination was submitted to USACE's Washington, North Carolina field office on June 29, 2023. USACE conducted a site visit on August 8, 2023, to verify the wetland delineation. Preliminary Jurisdictional Determination amendments were subsequently resubmitted to USACE on September 14, 2023 to make minor map changes. On December 14, 2023, USACE submitted a "Delineation Concurrence" confirmation email to MCAS Cherry Point verifying the accuracy and reliability of the wetland delineation for use in a permit evaluation process and determining any compensatory mitigation. The "Delineation Concurrence" is not a jurisdictional determination (USACE 2023).



Figure 3-1. Surface Water Features, Wetlands, and Environmental Restoration Program Sites within the Project Area Vicinity

*Floodplains.* Portions of MCAS Cherry Point are within the 100- and 500-year floodplains, associated with surface water bodies on the installation. No 100- nor 500-year floodplains exist within the project area.

**Stormwater.** The stormwater management system on MCAS Cherry Point incorporates flat swales, open ditches, and buried pipes. Slocum Creek, Hancock Creek, and the Neuse River are receiving waters for stormwater runoff from MCAS Cherry Point. Stormwater that falls within the project area is collected via a stormwater drainage ditch and detention pond. MCAS Cherry Point uses approximately 20 high-density structural BMPs to capture and treat stormwater runoff. Approximately 1,000 feet of abandoned stormwater lines that were associated with the former Hancock Village housing area are within the project area (MCAS Cherry Point 2014).

MCAS Cherry Point has committed to the use of LID principles to manage stormwater, wherever feasible. The LID approach to stormwater management emphasizes the onsite infiltration of stormwater, which reduces the cost of stormwater conveyance systems, increases groundwater recharge, and reduces soil erosion and water pollution (MCAS Cherry Point 2015).

Stormwater discharges from MCAS Cherry Point are regulated and authorized under NPDES Municipal Separate Storm Sewer System Permit Number NCS000314, which requires the installation to maintain an installation-wide SWPPP. The SWPPP identifies potential sources of pollution and describes and implements management procedures to reduce pollutants from industrial activities in stormwater runoff (MCAS Cherry Point 2017).

# 3.1.3 Environmental Consequences

The water resources analysis considers the potential impacts on groundwater, surface water, wetlands, floodplains, and stormwater from the Proposed Action. Impacts would be considered significant if the Proposed Action were to result in substantial effects on water quality; substantial changes to the hydrology, soils, and vegetation that support a wetland; an impediment to the function of floodplains and their ability to convey floodwaters; or substantial changes to the stormwater management system.

# 3.1.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur and no change to nor impacts on water resources, including groundwater, surface water, wetlands, floodplains, and stormwater, would occur at MCAS Cherry Point. These water resources would remain as described in **Section 3.1.2**. Therefore, no significant impacts on water resources would occur under the No Action Alternative.

#### 3.1.3.2 PROPOSED ACTION

Short-term, minor, adverse impacts on water resources would occur from the Proposed Action during construction. Construction would include excavation to remove existing pavement and utility lines; however, it is not anticipated that such ground disturbance activities would be deep enough to reach or disrupt the local groundwater table nor the Castle Hayne Aquifer, which is approximately 100 to 160 feet below the ground surface within the project area. Therefore, no impacts on groundwater are anticipated.

Construction activities would result in ground disturbance activities (e.g., grading, pavement removal, trenching) that would contribute to stormwater runoff and could result in degradation of water quality from increased erosion and sedimentation into surface waters. Construction would be conducted in a manner to have negligible impacts on Waters of the U.S. and wetlands, to the maximum extent practical. Construction activities would be temporary, and BMPs and LID practices would be implemented where possible. Because the Proposed Action would disturb more than 1 acre of land, the construction contractor would be responsible for obtaining an NPDES Construction General Permit from NCDEQ and developing a site-specific SWPPP. In addition, construction contractors would comply with the requirements as well as existing erosion and sedimentation control procedures in the installation-wide SWPPP, and implement stormwater BMPs (e.g., silt fencing, inlet protection, natural ground covers) to avoid and minimize the potential for pollution to enter surface waters.

Long-term, negligible to minor, adverse impacts on water resources would occur from operation of the GPW and associated facilities. The net loss of 33.3 acres of vegetation and net increase of 15.7 acres of impervious surface would result in long-term impacts on the hydrology of the area, as reduced vegetative cover and increased impervious surfaces would prevent water from infiltrating the soil and increase the possibility of pollution entering the water system.

Additional impervious surfaces would increase stormwater runoff rates and discharges into surface waters surrounding the installation, including Slocum Creek, Hancock Creek, and the Neuse River. Increased stormwater runoff rates would be mitigated where possible. This mitigation includes the expansion of the stormwater detention pond east of the proposed GPW to accommodate the increased flow rate. Industrial activities at the GPW, including transportation of materials and storage of potentially hazardous materials, pose a higher risk of pollution to enter surface water within the project area, increasing the potential for pollution to enter the water system within the surrounding area. To reduce the potential for pollution into water resources, pollution reduction measures, including adherence to the installation NPDES permit and SWPPP, would be implemented.

Long-term, minor, adverse impacts on surface water would occur from construction in open water areas and filling of wetlands. The Proposed Action would result in the removal of potentially jurisdictional open waters and wetlands; therefore, mitigation as designated by NCDEQ and USACE would be determined during the permitting process. Total open water permanent impacts to Pond A and the five POWs are estimated at 0.63 acre and would occur from construction of the Proposed Action. Pond A would be expanded to handle additional stormwater due to the proposed impervious surface increase, and site stormwater drainage would be redesigned within the project area (i.e., new stormwater inlets and a new stormwater drainage ditch that would discharge to Pond A). Permanent impacts to each potentially jurisdictional open water feature are as follows; Pond A is 0.31 acre; POW A is 0.13 acre; POW B is 0.12 acre; POW C is 0.01 acre; POW D is 0.02; and POW E is 0.04 acre. POW impact estimates exclude the culvert and concrete-bottomed portions as depicted in **Figure 3-1**. Total permanent wetland impacts are estimated at 0.27 acre, as the remaining wetlands immediately to the northeast of the project area would be avoided. Approximately 0.27 acre of potentially jurisdictional wetland WA-2 in the northeastern corner of the project area would be filled and/or

excavated due construction of the Proposed Action. CWA Section 401 and 404 permits for stream, wetlands, and open water impacts would be required from USACE and NCDEQ prior to the start of construction.

# 3.2 Biological Resources

Biological resources include living, native, or naturalized plant and animal species and the habitats within which they occur. Plant associations are referred to generally as vegetation, and animal species are referred to generally as wildlife. Habitat can be defined as the resources and conditions present in an area that support a plant or animal. Within this EA, biological resources are defined as vegetation, wildlife, and threatened and endangered species.

# 3.2.1 Regulatory Setting

Special-status species, for the purposes of this assessment, are those species listed as threatened or endangered under the ESA as well as species afforded federal protection under the MMPA and the BGEPA.

The purpose of the ESA is to conserve the ecosystems upon which threatened and endangered species depend and to conserve and recover listed species. Section 7 of the ESA requires action proponents to consult with USFWS and National Marine Fisheries Service to ensure their actions are not likely to jeopardize the continued existence of federally listed threatened or endangered species or result in the destruction or adverse modification of designated critical habitat. Critical habitat are areas protected by the ESA that contain features essential to the conservation of an endangered or threatened species that may require special management and protection. Critical habitat cannot be designated on any areas owned, controlled, or designated for use by the DoD where an Integrated Natural Resources Management Plan has been developed that, as determined by the Department of Interior or Department of Commerce Secretary, provides a benefit to the species subject to critical habitat designation.

All marine mammals are protected under the provisions of the MMPA. The MMPA prohibits any person or vessel from "taking" marine mammals in the U.S. or the high seas without authorization. The MMPA defines "take" as "to harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal."

Bald and golden eagles are protected under the BGEPA. This act prohibits anyone from taking bald eagles, including their parts, nests, or eggs, without a permit issued by the Secretary of the Interior. The act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." For purposes of these guidelines, "disturb" means "to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause: (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, feeding, or sheltering behavior."

The Magnuson-Stevens Act provides for the conservation and management of fisheries. As defined by this act, essential fish habitat consists of the waters and substrate needed by fish to spawn, breed, feed, or grow to maturity.

Species protected by the MBTA are not assessed here in accordance with the Department of Interior Solicitor's Opinion M-37050, *Incidental Take Prohibited Under the MBTA*, issued December 22, 2017, which concludes that the MBTA's prohibition on take (defined as pursuing, hunting, taking, capturing, killing, or attempting to do the same) applies only to "direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests" and not to the losses incidental to otherwise lawful activities.

# 3.2.2 Affected Environment

**Vegetation.** Five natural community types are present on MCAS Cherry Point: grassland, pine, pine-hardwood, hardwood, and hardwood-pine. The most abundant community type is forests, with 6,913 acres of hardwood and pine forests (approximately 81 percent of the natural communities). Pine forest is the dominant natural community, totaling 4,222 acres distributed throughout MCAS Cherry Point. Loblolly pine (*Pinus taeda*) dominates the canopy in broad interstream areas. Forests are burned by prescription on a 3- to 5-year cycle to facilitate military training, reduce wildfire danger, improve wildlife habitat, and promote native plant communities (MCAS Cherry Point 2012).

The majority of the project area has been disturbed but much of it has returned to natural conditions of trees, grass, and underbrush. Vegetative cover within the project area includes 26.3 acres of pine forest and 0.3 acre of pine-hardwood forest. During the August 2022 wetland delineation for the project area, the dominant trees and shrubs observed in the forested vegetation type included loblolly pine, longleaf pine (*Pinus palustris*), sweetgum (*Liquidambar styraciflua*), blackgum (*Nyssa sylvatica*), red maple (*Acer rubrum*), southern wax myrtle (*Myrica cerifera*), bald cypress (*Taxodium distichum*), sweetbay magnolia (*Magnolia virginiana*), American beautyberry (*Callicarpa americana*), groundseltree (*Baccharis halimifolia*), and red bay (*Persea borbonia*). Dominant species observed within the herbaceous layer typically included chalky bluestem (*Andropogon capillipes*), giant cane (*Arundinaria gigantea*), jewelweed (*Impatiens capensis*), greenbrier (*Smilax laurifolia*), crossvine (*Bignonia capreolata*), smartweed (*Polygonum sp.*), Marsh parsley (*Cyclospermum leptophyllum*), lizard's tail (*Saururus cernuus*), microstegium (*Microstegium vimineum*), woodoats (*Chasmanthium latifolium*), and arrow arum (*Peltandra virginica*).

Merchantable timber was harvested in the project area between spring 2022 and early 2023. The current total forested area remaining within the study area (scattered forested areas and edges), following merchantable timber removal, is approximately 3.9 acres.

*Wildlife.* Common mammal species at MCAS Cherry Point include white-tailed deer (*Odocoileus virginianus*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), swamp rabbit (*Sylvilagus aquaticus*), eastern cottontail (*Sylvilagus floridanus*), eastern gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), and other small rodents and shrews. Bird species that are widespread include wild turkey (*Meleagris gallopavo*), northern bobwhite (*Colinus virginianus*), and mourning dove (*Zenaida macroura*). Resident and migratory waterfowl are also common. Ibis (subfamily Threskiornithinae), cormorants (family Phalacrocoracidae), herons and egrets (family Ardeidae), and belted kingfisher (*Ceryle alcyon*) are common throughout flooded areas. Common

songbirds include red-eyed vireo (*Vireo olivaceus*), cardinal (family Cardinalidae), tufted titmouse (*Baeolophus bicolor*), ruby-throated hummingbird (*Archilochus colubris*), eastern towhee (*Pipilo erythrophthalmus*), wood thrush (*Hylocichla mustelina*), summer tanager (*Piranga rubra*), blue-gray gnatcatcher (*Polioptila caerulea*), hooded warbler (*Wilsonia citrina*), and Carolina wren (*Thryothorus ludovicianus*). Common herpetofauna include box turtle (*Terrapene* spp.), common garter snake (*Thamnophis sirtalis*), eastern diamondback rattlesnake (*Crotalus adamanteus*), timber rattlesnake (*Crotalus horridus*), and American alligator (*Alligator mississippiensis*) (MCAS Cherry Point 2012). No designated critical habitat nor essential fish habitat is within the project area.

**Federal Threatened and Endangered Species.** The USFWS online tool, IPaC, was used to generate a list of federal threatened, endangered, and candidate species that may occur within the project area. A species habitat assessment was conducted within the project area in August 2022 (HDR 2022a). Suitable habitat is not present within the project area for the shortnose sturgeon, Atlantic sturgeon, eastern black rail, rufa red knot, green sea turtle, and leatherback sea turtle. Therefore, further evaluation of these species is not provided in this EA (USFWS 2022a, MCAS Cherry Point 2012).

**Table 3-1** summarizes the remaining identified species as well as the BGEPA-protected bald eagle and the tricolored bat (*Perimyotis subflavus*), which was proposed for listing as endangered in September 2022 and is anticipated to be listed as endangered in 2024. The American alligator is listed by the USFWS as threatened due to similarity of appearance to the threatened American crocodile (*Crocodylus acutus*) (MCAS Cherry Point 2012).

The USFWS proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA in September 2022 due to its recent decline in population. The species faces extinction as a result of white-nose syndrome, a wide-ranging, deadly disease affecting cave-dwelling bats across the continent (USFWS 2022a).

The bald eagle (*Haliaeetus leucocephalus*) has been removed from the endangered species list but remains protected under the BGEPA. Monitoring and protective measures for bald eagles are requirements of MCAS Cherry Point's permit in accordance with this regulation.

# 3.2.3 Environmental Consequences

Impacts on biological resources would be significant if the Proposed Action were to result in the take of a listed rare, threatened, or endangered species or their critical habitats. Impacts would also be significant if the Proposed Action were to result in substantial changes to the vegetative communities, animal populations, or overall habitat quality within the project area.

#### 3.2.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur and no change would occur to biological resources. Biological resources would remain as described in **Section 3.2.2**. Therefore, no significant impacts on biological resources would occur under the No Action Alternative.

Species	Status	Distribution	Habitat			
Mammals						
Northern long- eared bat ( <i>Myotis</i> <i>septentrionalis</i> )	FE	The northern long-eared bat is found across much of North America. The species could potentially occur within the forested areas of MCAS Cherry Point.	The northern long-eared bat spends winters hibernating in caves and mines within the mountains. In summer, they roost singly or in colonies underneath bark, in cavities, or in crevices of live and dead trees (typically greater than or equal to 3 inches in diameter at breast height). They can also roost in structures (barns, sheds, buildings, bridges). They forage in forested hillsides and ridges, and occasionally over forest clearings, over water, and along tree-lined corridors. A study conducted in 2018 did not identify any northern long-eared bats or roost trees for northern long-eared bats on the installation (MCAS Cherry Point 2018b). Within the project area, suitable habitat exists as limited trees along the stormwater pond and western access road.			
Tricolored bat ( <i>Perimyotis</i> <i>subflavus</i> )	FEª	The tricolored bat is wide ranging across the eastern and central U.S and portions of southern Canada, Mexico, and Central America.	During winter, tricolored bats are often found in caves, abandoned mines, and occasionally road-associated culverts within the southern U.S. During the rest of the year, the bats are found to roost in forested habitats, primarily among leaves of live or recently dead deciduous hardwood trees, and may also be found in pine trees and human structures. A 2018 study in the northern portion of the installation identified tricolored bats as the most commonly recorded bat in acoustic surveys, and mist-net surveys captured six individuals. No surveys were conducted in the project area (MCAS Cherry Point 2018b). Within the project area, suitable habitat exists as limited trees along the stormwater pond and western access road.			
Birds	1					
Bald eagle ( <i>Haliaeetus</i> <i>leucocephalus</i> )	BGEPA	The bald eagle is native to North America. Bald eagles exist throughout North Carolina and have been observed at MCAS Cherry Point since 1983. There is potential for bald eagles to occur at MCAS Cherry Point.	Bald eagles like to nest in large pine trees; therefore, limited potential for foraging and nesting exists within the project area along the edge of the stormwater pond and western access road.			

# Table 3-1. Federal Protected Species Potentially Occurring within the Project Area

Species	Status	Distribution	Habitat			
Red-cockaded woodpecker ( <i>Leuconotopicus</i> <i>borealis</i> )	FE	The red-cockaded woodpecker is found within the southeastern U.S. They have historically occurred within the longleaf pine forests of MCAS Cherry Point but have not been observed since the 1970s.	The red-cockaded woodpecker prefers longleaf pine stands and occasionally slash pines. Suitable habitat exists in the form of semi-open understory pine dominated mature forested areas that encompass a few large longleaf and loblolly pine trees near the western side of the project area.			
Reptiles and Am	phibians					
American alligator ( <i>Alligator</i> <i>mississippiensis</i> )	FT(S/A)	The American alligator is found along the Atlantic coast and throughout the southeastern U.S. In North Carolina, it is observed in Hancock and Slocum Creeks and nests in Jack's Branch. American alligators are found in rivers, streams, canals, lakes, swamps, and coastal marshes on and near the installation. There is potential for the species to occur at MCAS Cherry Point.	MCAS Cherry Point supports a breeding population of American alligators. Although no individuals have been documented within the project area, the stormwater detention pond within the project area could provide suitable habitat.			
Insects						
Monarch butterfly ( <i>Danaus</i> <i>plexippus</i> )	FC	Monarch butterflies are distributed throughout the U.S. Occurrences have not been recorded at MCAS Cherry Point.	This species lays eggs on obligate milkweed plants ( <i>Asclepia spp</i> .). Limited suitable habitat exists in the form of open dirt roadsides and clearcuts that harbor flowering plants.			
Plants						
Rough-leaved loosestrife ( <i>Lysimachia</i> <i>asperulaefolia</i> )	FE	The rough-leaved loosestrife is found in North and South Carolina coastal plain and sandhill habitats. Occurrences have not been found at MCAS Cherry Point.	The rough-leaved loosestrife is generally found in pond margins, wet prairies, or seepage areas in hardwood forests. Minimal suitable habitat exists for rough-leaved loosestrife in the form of dirt path edges and wetland clearcut edges. Habitat assessments and presence/absence surveys were performed on MCAS Cherry Point. No individuals were noted within the project area, and no occurrences were documented within 1 mile of the project area.			

Sources: MCAS Cherry Point 2012; USFWS 2022a; USFWS 2022b

Key: C – Candidate species (federal designation); E – Endangered; F – Federal; T – Threatened; T(S/A) –

Threatened due to similarity of appearance

<sup>a</sup> Proposed as of September 2022

#### 3.2.3.2 PROPOSED ACTION

**Vegetation.** Long-term, minor, adverse impacts on vegetation would occur from permanent removal of 33.3 acres of vegetation. This area represents 0.4 percent of the total vegetation on the installation. Removal of forested stands and other vegetation would convert the project area to impervious surface and maintained vegetation landscape. The removal and conversion of forest stands would be insignificant to the total habitat quality of forested stands within the area. Merchantable timber located within the project area was harvested between spring 2022 and early 2023. Nonmerchantable vegetation (mainly herbaceous, limited trees, saplings and shrubs) would be cleared and grubbed prior to the development of the project area. Following construction, temporarily disturbed areas would be revegetated.

The permanent vegetation conversion to a maintained landscape may result in long-term, negligible, beneficial benefits from use of nature-based landscaping techniques. Nature-based landscaping techniques could include but are not limited to using native plant materials for pollinator habitat and adding rain garden features (e.g., detention areas with native wetland vegetation) to alleviate and dissipate stormwater.

**Wildlife.** Noise from operation of construction vehicles and equipment as well as other construction activities could temporarily displace wildlife within the immediate project area vicinity during construction. Because wildlife would be expected to avoid the project area during construction and are already habituated to noise disturbances from operations on the installation, adverse impacts from construction activities and associated noise would be short-term and minor. Long-term, negligible, adverse impacts on wildlife would occur from the permanent loss of potential habitat for wildlife due to ground disturbance and the removal of 33.3 acres of vegetation. Impacts from ground disturbance and the removal of herbaceous and shrub/scrub vegetation would affect ground nesting birds as well as other wildlife in the area that use open herbaceous landscapes for foraging and nesting due to. It is anticipated these wildlife species would move into the adjacent forested landscapes on the installation.

**Federal Threatened and Endangered Species.** No documented occurrences or observations of the northern long-eared bat, tricolored bat, red-cockaded woodpecker, American alligator, monarch butterfly, or rough-leaved loosestrife have occurred within 1 mile of the project area. Although some potential habitat for these species exists within or near the project area, it is considered minimal and low quantity habitat for these listed species. Northern long-eared bat, tricolored bat, and red-cockaded woodpecker habitat in particular is low quantity and quality due to the prior removal of merchantable timber in 2022/2023, reducing the likelihood of their occurrences within the project area being affected by the Proposed Action. Therefore, long-term, negligible to minor, adverse effects on these species from the construction and operation of the GPW and associated facilities would be anticipated. Rationale for the negligible to minor, adverse effects determination for each of these species is briefly explained in the following:

• Northern long-eared bat: Potential effects to the northern long-eared bat roosting habitat would be from the removal of forests/trees (merchantable and nonmerchantable). MCAS Cherry Point conducted commercial timber harvesting to remove the merchantable timber from the project area between spring 2022 and early 2023. Nonmerchantable vegetation, in the form of small patches of trees along the existing stormwater pond and

access road, would be cleared and grubbed prior to the development of the project area, which would result in a long-term, negligible to minor, adverse effect on the species' habitat. Any future tree removal within the project area would avoid breeding and pup season from May 15 to August 15 and adhere to forthcoming guidance from USFWS in early 2024 to limit the potential of an adverse effect. Due to the previous removal of forest stands in 2022 and early 2023, known limited suitable habitat remaining (i.e., non-merchantable trees greater than or equal to 3 inches diameter at breast height), and lack of known occurrences in the project area, a long-term, negligible to minor, adverse effect (May Affect Not Likely to Adversely Affect) to the species is anticipated from the Proposed Action.

- Tricolored bat: The tricolored bat was the most common bat species recorded in acoustic surveys and six individuals were captured in mist-net surveys during a 2018 study conducted in the northern part of the installation. The project area, located in the southern part of the installation, has not been surveyed (MCAS Cherry Point 2018b). Potential effects to the tricolored bats roosting habitat would be from the removal of timber (merchantable and nonmerchantable). MCAS Cherry Point conducted commercial timber harvesting to remove the merchantable timber from the project area between spring 2022 and early 2023. Nonmerchantable vegetation, in the form of small patches of trees along the existing stormwater pond and access road, would be cleared and grubbed prior to the development of the project area and would be a long-term, negligible to minor, adverse effect on the species' habitat. Any future tree removal within the project area would avoid breeding and pup season from May 15 to August 15 and adhere to forthcoming guidance from USFWS in early 2024 to limit the potential of an adverse effect. Due to the previous removal of forest stands in 2022 and early 2023, known limited suitable habitat remaining (non-merchantable trees greater than 3 inches diameter at breast height), and lack of known occurrences in the project area, a longterm, negligible to minor, adverse effect (May Affect Not Likely to Adversely Affect) to the species is anticipated from the Proposed Action.
- *Red-cockaded woodpecker:* The limited suitable habitat in the form of limited pine trees along the stormwater pond in the study area and in the adjacent semi-open understory pine forested stands is considered low quality for this species, which reduces their potential for occurrence. Further, no roost-starts nor individuals have been documented within the project area or observed during the 2022 field survey of the project area. Because no known populations occur within 1 mile of the project area, and no individuals have been observed within the project area, no effect to this species is anticipated from the Proposed Action.
- American alligator: The American alligator has not been documented within or near the project area, including the stormwater detention pond. Further, no individuals were observed during the 2022 field survey of the project area. It is unlikely the short-term construction activities and associated noise would result in an effect to individuals that occur elsewhere on the installation. Although American alligators are known to inhabit ponds, the stormwater pond is not identified as a feeding, reproductive, or nesting habitat for individuals that occur on the installation. If individual alligators were within the

pond vicinity during construction, it is assumed the associated noise would cause them to temporarily avoid the area. Any potential construction-associated contaminant spills would be reported and cleaned up immediately in accordance with BMPs to reduce potential contamination of potential American alligator habitat. Federal agencies are not responsible for fulfilling the requirements of ESA Section 7 with respect to actions that may affect species protected due to similarity of appearance. Therefore, a conclusory determination of effects under ESA for the American alligator is not provided in this EA.

- *Monarch butterfly:* The few individual milkweed plants within the project area are considered low-quality habitat; therefore, no effect to the monarch butterfly from the removal of individual plants in low-quality habitat is anticipated from the Proposed Action.
- *Rough-leaved loosestrife:* No effect to the rough-leaved loosestrife is anticipated because limited suitable habitat occurs within the project area, no individuals were noted within the project area, and no occurrences were documented within 1 mile of the project area.

Long-term, negligible to minor, adverse effects to threatened and endangered species would occur from the Proposed Action; therefore, no formal consultation between DLA and USMC and the USFWS and National Marine Fisheries Service is required. An IPaC self-certification package (dated November 30, 2023) was submitted to the USFWS Raleigh Regional Office on December 1, 2023. The USFWS Raleigh Office followed up in June 2024 with results of a newly developed joint northern long-eared bat and tricolored bat determination key. In a letter dated June 21, 2024, USFWS concurred with the biological determinations for all listed species and stated that the requirements of Section 7 of the ESA have been satisfied. USFWS determined the Proposed Action would not jeopardize the continued existence of the tricolored bat, which is not yet federally listed as threatened or endangered. Further coordination with USFWS would be required in the future if the tricolored bat is listed and any needed tree removal for the Proposed Action has not yet occurred. **Appendix A** includes documentation of all agency correspondence for this EA. Overall, implementation of the Proposed Action would not result in significant impacts on biological resources.

# 3.3 Geological Resources

The geology of an area includes bedrock materials and mineral deposits. Topography describes the physical surface characteristics of the land, such as slope, elevation, and general surface features. Soil refers to unconsolidated earthen materials overlying bedrock or other parent material and is described in this EA in terms of drainage, erosion, and flooding potential.

# 3.3.1 Regulatory Setting

As mentioned in **Section 3.1.1**, the North Carolina NPDES stormwater program requires construction operators engaged in clearing, grading, and excavating activities that disturb 1 acre or more of soil to obtain coverage under an NPDES General Permit to Discharge Stormwater for Construction Activities. Permit coverage for construction activities also requires preparation of a

Notice of Intent to discharge stormwater and a SWPPP that is published during construction to minimize erosion and sedimentation.

# 3.3.2 Affected Environment

MCAS Cherry Point in Craven County, North Carolina overlies seven geologic units including, 1) Yorktown Formation and Duplin Formation; 2) Castle Hayne Formation, Comfort Member and New Hanover Member; 3) Castle Hayne Formation, Spring Garden Member; 4) River Bend Formation; 5) Surficial Deposits; 6) Beaufort Formation; and 7) Peedee formation. The Yorktown Formation/Duplin Formation and well as the Castle Hayne Formation cover 56 percent and 16 percent of the project area, respectively. The tertiary Yorktown Formation consists of fossiliferous clay with varying amounts of fine-grained sand, and the Duplin Formation consists of shelly, medium to coarse-grained sand, sandy marl, and limestone, mainly at the mouth of the Neuse River. The tertiary Castle Hayne Formation consists mainly of a bryozoan-echinoid skeletal limestone, which can be locally dolomitized (USGS 2022). Topography of the area is relatively flat, and elevation fluctuates between 6 to 30 feet above sea level.

The project area contains three soil types: Lynchburg-Urban Land Complex, Rains-Urban Land Complex, and Rains fine sandy loam (zero to two percent slopes, Atlantic Coast Flatwoods). Lynchburg-Urban land complex soil has moderate erosion potential, no flooding potential, and drains water poorly. Rains-Urban land complex and Rains fine sandy loam have the same characteristics, including slight potential for erosion, poor drainage, and no flood potential. No prime farmland, unique farmland, or farmland of statewide or local importance exists within the project area (NRCS 2022).

# 3.3.3 Environmental Consequences

The geological resources analysis considers how the Proposed Action would alter or change the current geology at MCAS Cherry Point, including soils, topography, and geologic units. Impacts on geological resources would be considered significant if the Proposed Action were to result in substantial destabilization of soils or changes that would noticeably affect local and regional geology.

#### 3.3.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur and no impact on soils, topography, or geologic conditions would occur within the project area. Geological resources would remain as described in **Section 3.3.2**. Therefore, no significant impacts on geological resources would occur under the No Action Alternative.

#### 3.3.3.2 PROPOSED ACTION

Short-term, minor, adverse impacts on geological resources would occur from the Proposed Action. During construction, clearing and grading of 33.3 acres would be required. The majority of soil that would be removed or disturbed consists of Rains-Urban land complex. Clearing of vegetation and site preparation for construction would temporarily increase sedimentation and erosion of soils within the project area, potentially degrading water quality at nearby surface water bodies. Standard erosion and sedimentation BMPs and control procedures would be implemented during construction to minimize impacts on soils. These BMPs and control

measures could include covering exposed soils, which would limit the length of time soils are exposed, and marking areas of existing vegetation not to be removed or disturbed. In accordance with the SWPPP, construction would adhere to Engineering Technical Letter 14-1, *Construction and Operation and Maintenance Guidance for Stormwater Systems*, which provides procedures and practices to minimize increased stormwater runoff, erosion, and sedimentation from construction activities and provides guidance for construction inspectors regarding erosion and sediment controls (MCAS Cherry Point 2017).

Long-term, minor, adverse impacts on geological resources within the project area from the Proposed Action would occur from the permanent removal of 33.3 acres of vegetation and soil disturbance. The Proposed Action would permanently reduce percolation rates and alter the soil system. The GPW and associated facilities would add 15.7 acres of impervious surface cover to MCAS Cherry Point, which would degrade the integrity of surrounding soil structure. Impervious surfaces would increase rates of runoff and stormwater volume, thereby increasing the rate of sedimentation and erosion in the long-term. The loss of vegetation also would contribute to a weaker soil system, as the rooted system would no longer aid in anchoring soil and absorbing excess water. Stormwater runoff would be managed using post-construction procedures as outlined in the MCAS Cherry Point SWPPP, including completion of a Designer's Certification to ensure construction was carried out and built in substantial compliance and regular inspection of permanent structural BMPs (MCAS Cherry Point 2017).

# 3.4 Utilities and Transportation

Utilities include electrical, communications, potable water, solid waste, and wastewater systems. Transportation in this EA refers to the existing roadway system, parking, and traffic patterns involving the movement of people and vehicles throughout MCAS Cherry Point.

# 3.4.1 Regulatory Setting

EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability,* aims to reduce the generation of wastes, advances pollution prevention, supports markets for recycled products, and commits federal agencies to reach goals to build climate resilience. The DoN's 2030 Climate Action Plan commits the DoN and USMC to the goals set forth in EO 14057, including the goal to annually divert 50 percent of non-hazardous solid waste, such as food and compostable materials, and construction and demolition waste and debris from landfills by 2025 (DoN 2022).

# 3.4.2 Affected Environment

*Electrical System.* Electricity at MCAS Cherry Point is supplied by Duke Energy via two substations. A 50-megawatt (MW) substation is along Slocum Road, and a 25-MW substation is along North Carolina Highway 101. Operational power usage throughout the year typically ranges from 28 to 35 MW (MCAS Cherry Point 2015). There are no electrical lines within the project area. Electrical connection to the project area would be available via a 12.5-kilovolt underground line within the FRC East complex east of the proposed GPW (DLA 2022b).

*Natural Gas.* Natural gas is used in various locations at MCAS Cherry Point, including recent upgrades associated with the F-35 modernization. Some remote facilities use small natural gas tanks for heating fuel supply if steam distribution lines are not present. Natural gas is provided via pump to Building 4841 within the FRC East complex. There are no natural gas lines within the project area; however, an existing natural gas line is parallel to Fontana Boulevard south of the project area (MCAS Cherry Point 2015, DLA 2022b).

**Communications.** Internet and phone service on MCAS Cherry Point are provided by CenturyLink through a connection at Roosevelt Gate. An off-installation plant owned and operated by MCAS Cherry Point provides communications services throughout the installation through copper and fiber optic lines (MCAS Cherry Point 2015). There is no communications infrastructure within the project area.

**Potable Water.** As discussed in **Section 3.1.2**, MCAS Cherry Point withdraws potable water from the Castle Hayne aquifer via 23 wells throughout the installation, with a total withdrawal capacity of approximately 4 million gpd (MCAS Cherry Point 2014). Potable water at MCAS Cherry Point is stored in five elevated storage tanks, with a total capacity of approximately 1.2 million gallons with one pressure zone servicing irrigation and fire protection systems. A 12-inch main potable and fire water supply line operated by the City of Havelock is parallel to Fontana Boulevard south of the project area (DLA 2022b).

**Solid Waste.** The Facilities Maintenance Department at MCAS Cherry Point collects solid waste from all non-housing areas. In addition, the installation implements an installation-wide recycling program. The program is used to reduce the amount of waste both generated and disposed at MCAS Cherry Point. The collection target of the MCAS Cherry Point recycling program is 20,000 pounds annually (MCAS Cherry Point 2022). Solid wastes at MCAS Cherry Point are managed in accordance with the MCAS Cherry Point Integrated Solid Waste Management Plan (MCAS Cherry Point 2023).

*Wastewater.* The wastewater collection system at MCAS Cherry Point consists of approximately 537,000 linear feet of 4- to 24-inch-diameter gravity lines and 50 lift stations. Older gravity lines dating to the 1940s are commonly composed of terra cotta clay, whereas newer pipe is polyvinyl chloride-based (MCAS Cherry Point 2014). MCAS Cherry Point operates an industrial pre-treatment wastewater treatment plant (WWTP) that pre-treats approximately 300,000 to 450,000 gpd of industrial wastewater from oil-water separators, wash racks, and FRC East. Both the pretreated industrial and domestic wastewater are treated at the MCAS Cherry Point domestic WWTP, which has the capacity to treat 6.5 million gpd with a permitted capacity of 3.5 million gpd. In 2014, which is the most recent data available, the average daily wastewater demand was approximately 1.8 million gpd. Wastewater lines are within the FRC East complex west of the project area. Approximately 1,000 feet of abandoned wastewater lines that were associated with the former Hancock Village housing area are within the project area.

**Roadways and Parking.** Roadways used to access the project area include North Carolina Highway 101, Roosevelt Boulevard, Cunningham Boulevard, Marylou Road, and Sheep Road. North Carolina Highway 101, south of the project area, provides access to Fike Drive, which was used as an access road for the former Hancock Village housing area and currently provides

access to the FRC East complex parking area. In addition, North Carolina Highway 101 provides access to the Roosevelt Gate along Roosevelt Boulevard. A Street connects Roosevelt Boulevard to Cunningham Boulevard, which provides access to Marylou and Sheep Roads (see **Figure 3-2**). Abandoned roadways associated with the former Hancock Village housing area are within the project area. Roadways leading to the proposed GPW show signs of wear and tear with existing cracks, and the existing road conditions suggest the pavement surface structural integrity is not adequate to support truck traffic volumes associated with DLA Depot activities (DLA 2022b). There are no parking areas within the project area.

*Gate Access.* MCAS Cherry Point has three main gates on the installation, including the Slocum Road, Roosevelt, and Cunningham Gates. POV and truck traffic entering the southern portion of MCAS Cherry Point enter the installation through Roosevelt Gate, along Roosevelt Boulevard. The gate count for Roosevelt Gate is approximately 15,400 vehicles per day, including both POVs and trucks.

# 3.4.3 Environmental Consequences

The utilities and transportation analysis considers how the Proposed Action would alter existing utilities, traffic patterns, and roadway capacities within the project area vicinity. Impacts on utilities and transportation would be considered significant if the Proposed Action were to result in exceedance of a utility's capacity, a long-term interruption in the operation of a utility, substantial decline in a roadway's functionality, or substantial and permanent changes to roadway accessibility.

# 3.4.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur, and no change to or impact on utilities or transportation would occur at MCAS Cherry Point. Existing conditions would remain the same as described in **Section 3.4.2**. Therefore, no significant impacts on utilities and transportation would occur under the No Action Alternative.

# 3.4.3.2 PROPOSED ACTION

*Utilities.* Short-term, minor, adverse impacts on utilities would occur from construction and demolition activities associated with the Proposed Action. There are no active utility lines within the project area, and construction activities would not cause disruptions to nearby utilities within the FRC East complex or south of the project area; however, as the GPW and associated facilities are connected to these utility systems, minor, short-term disruptions could occur. Within the project area, abandoned stormwater and wastewater lines would be removed prior to construction. Material and debris generated during construction would increase the solid waste generation at the installation. Construction waste would be generated from removal of 33.33 acres of vegetation; removal of 3,000 linear feet of fencing; removal of abandoned stormwater and wastewater lines, foundations, and roadways within the project area; repair of Marylou and Sheep Roads; and construction of the GPW and associated facilities.



Figure 3-2. Main Roadways and Proposed Construction Traffic Access Route

Solid waste generated from construction and demolition would be managed in accordance with USMC and MCAS Cherry Point guidelines. Contractors would be required to recycle construction and demolition debris where possible and would be responsible for disposing non-recyclable debris at permitted waste facilities. It is not expected that solid waste generation from the Proposed Action would exceed the capacity of the existing solid waste management system, and significant impacts on solid waste management would not occur.

Long-term, negligible, adverse impacts on utilities would occur from the Proposed Action. After the GPW and associated facilities are connected to existing utility mains, the GPW would operate efficiently and cause minimal strain on the existing utilities infrastructure.

*Transportation.* Short-term, minor, adverse impacts on roadways and traffic would occur from temporary increases in roadway traffic during construction. Both site preparation and construction would require an increase in truck trips and related traffic for materials and equipment. Construction traffic accessing the project area would enter Roosevelt Gate off North Carolina Highway 101 and travel along Roosevelt Boulevard, A Street, Cunningham Boulevard, and Marylou Road before turning onto Sheep Road to access the project area. Many of the heavy construction vehicles would remain within the project area for the duration of construction and demolition activities, which would minimize impacts on installation roadways.

Long-term, negligible, adverse impacts would occur on roadways and traffic from operation of the GPW and the 10 trucks accessing the GPW per day. No increases in POV or truck traffic at the Roosevelt Gate would occur because personnel and deliveries would be transferred from the existing DLA warehouse facilities on the installation. POV and truck traffic accessing the GPW would use Roosevelt Boulevard, A Street, Cunningham Boulevard, Marylou Road, and Sheep Road. Long-term, negligible, beneficial impacts could occur from changes to POV and truck traffic patterns on the installation because POV and truck traffic that would normally access the existing DLA Depot storage facilities closer to the airfield would be redirected to the GPW, reducing traffic in busier areas of the installation. Marylou and Sheep Roads would be repaired and upgraded to improve the degraded roadway condition and support the anticipated GPW truck traffic. Site design improvements would include a concrete apron to accommodate a large volume of semi-truck traffic and provide a long-lasting, durable pavement to minimize disruptions and the need for pavement replacement around the facility.

# 3.5 Hazardous Materials and Wastes

Hazardous materials and wastes are defined as substances with clearly hazardous properties used in commercial, military, and industrial applications that pose a substantial threat to human health or the environment due to their quantity, concentration, or physical and chemical properties.

# 3.5.1 Regulatory Setting

Hazardous materials are defined at 49 CFR Section 171.8 as "hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table, and materials that meet the defining criteria for hazard classes and divisions in 49 CFR § 173." Transportation of hazardous materials is

regulated by U.S. Department of Transportation regulations. A complete list of federally recognized hazardous substances as well as their reportable quantities are provided in 40 CFR Section 302.4. Many substances not on this list may be considered hazardous according to their ignitability, corrosivity, reactivity, or toxicity as defined by 40 CFR Sections 261.20–24. Polyfluoroalkyl substances (PFAS) and perfluorooctanoic acid (PFOA) are classified as hazardous materials under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). PFAS and PFOA are human-made chemicals that have negative impacts on human and environmental health, and are commonly found in non-stick products, firefighting foam, waxes, polishes, and paints.

Special hazards are those substances that might pose a risk to human health and are addressed separately from other hazardous substances. USEPA regulates special hazards, including ACM, LBP, and PCBs, in accordance with the Toxic Substances Control Act. ACM is generally found in building materials such as floor tiles, mastic, roofing materials, pipe wrap, and wall plaster. USEPA implemented bans on ACM between 1973 and 1990. LBP was commonly used in building construction prior to its ban in 1978. PCBs are human-made chemicals that persist within the environment and were widely used in buildings materials (e.g., caulk) and electrical products (e.g., light ballasts) prior to its ban in 1979.

MCO P5090.2A, Volume 9 mandates the management of hazardous materials and wastes by the USMC through a comprehensive collection of requirements and procedures. As the USMC holds military lands in the public trust, USMC commands must maintain proper land, air, and water resources to sustain realistic military training and testing for future generations of Marines.

# 3.5.2 Affected Environment

*Hazardous Materials and Wastes.* Common hazardous materials used on military installations include fuels, lubricants, sealants, adhesives, paints and paint removers, rust prevention and corrosion control products, coolants, and boiler water treatment chemicals. No known hazardous materials nor wastes are currently used or stored within the project area. USEPA and NCDEQ have specific regulatory requirements for the treatment, disposal, and storage of hazardous wastes.

A site characterization study to investigate geophysical, soil, and groundwater characteristics and ensure the project area is free from hazardous materials and wastes was completed in 2023. Twelve soils samples were collected and analyzed for volatile organic compounds, semivolatile organic compounds, total petroleum hydrocarbons (gasoline range, diesel range, and oil range organics), organochlorine pesticides, PCBs, polycyclic aromatic hydrocarbons, and metals. Two groundwater samples were collected and analyzed for the same constituents as the soil samples. One soil gas sample was collected and analyzed for 62 soil gas analytes (DLA 2023).

The soil sample results were compared to USEPA composite worker industrial soil regional screening levels, NCDEQ industrial/commercial health-based preliminary soil remediation goals, and North Carolina action limits for total petroleum hydrocarbons. The only analyte in the soil samples detected above the screening levels was total petroleum hydrocarbons (diesel range

organics) that marginally exceeded the North Carolina action limit. Of the 62 soil gas analytes, only chloroform was detected above its target indoor air concentration; however, chloroform is a common laboratory contaminant. The groundwater samples were compared to USEPA vapor intrusion screening level target groundwater concentrations and NCDEQ North Carolina Administrative Code 02L.0202 groundwater standards. Total petroleum hydrocarbons (diesel range organics) was detected slightly above the NCDEQ groundwater standard. Three metals (iron, cobalt, and vanadium) were detected above NCDEQ groundwater standards. Because the exceedances were either low or associated with common laboratory contaminants, the project area was categorized as "No contamination was found but there is some potential that contamination may be encountered during construction." Excavated soils should be monitored for odors and staining to identify and report any potential areas of contamination (DLA 2023).

**Special Hazards.** Toxic substances considered in this analysis are limited to ACMs, LBP, and PCBs. The former Hancock Village housing area was constructed in 1952. The housing area was demolished in approximately 2005, and the area was allowed to return to natural conditions. Stormwater and wastewater lines, foundations, and roadways were abandoned in place. All other structures and utilities were removed. The debris from the former housing area was removed after demolition. Based on the year of construction of the former Hancock Village housing area, ACMs and LBP are potentially present within the abandoned utility lines within the project area. Prior to being banned, PCBs were not commonly used for utility lines and are not likely to be present within the project area. PCBs were not detected above screening levels in soil or groundwater samples collected and analyzed during the 2023 site characterization study (DLA 2023).

*Environmental Restoration Program.* The Environmental Restoration Program (ERP) is a DoD program to identify, characterize, and remediate environmental contamination from past activities at military installations. It consists of the Installation Restoration Program for non-military munitions sites and the Military Munitions Response Program for sites containing munitions and explosives of concern. No ERP sites exist within the project area. The nearest ERP site, designated under CERCLA, is approximately 0.15 mile northeast of Marylou Road (see **Figure 3-1**). In addition, a solid waste management unit, "Training Area Four," is approximately 0.45 mile north of the existing stormwater detention pond. Impacts on or from these ERP sites under the Proposed Action would not occur; therefore, ERP sites are not discussed further.

# 3.5.3 Environmental Consequences

The hazardous materials and wastes analysis considers hazardous materials and wastes, special hazards, and ERP sites. Impacts on or from hazardous materials and wastes would be considered significant if the Proposed Action were to result in noncompliance with federal or state regulations, increase the amount of hazardous waste generated beyond handling capacity, or disturb or create contaminated sites that would negatively affect human health and the environment.

#### 3.5.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur, and no change to or impact on hazardous materials and wastes would occur at MCAS Cherry Point. Existing conditions would remain the same as described in **Section 3.5.2**. Therefore, no significant impacts on or from hazardous materials and wastes would occur under the No Action Alternative.

#### 3.5.3.2 PROPOSED ACTION

Short-term, negligible, adverse impacts from hazardous materials and wastes would occur during construction from the use of hazardous materials and petroleum products as well as the generation of hazardous wastes. Common hazardous materials that could be used during construction include solvents, adhesives, paints, cleaning fluids, and silica dust. Hydraulic fluids and petroleum products, such as diesel and gasoline, would be used in vehicles and equipment during construction. All hazardous materials, petroleum products, and hazardous wastes used or generated during construction would be contained, stored, and managed appropriately (e.g., secondary containment, inspections, spill kits) in accordance with applicable regulations to minimize the potential for releases. All construction equipment would be maintained according to the manufacturer's specifications, and drip mats would be placed under parked equipment as needed. Contamination may be encountered during construction. Excavated soils should be monitored for odors and staining to identify and report any potential areas of contamination.

Removal and disposal of existing abandoned stormwater and wastewater lines potentially containing ACMs and LBP would generate hazardous wastes. If special hazards are identified during construction, appropriate abatement and removal of these hazards would be completed, as necessary, by a certified contractor to ensure that appropriate measures are taken to reduce potential exposure to, and release of, these substances. Contractors would wear appropriate personal protective equipment and would be required to adhere to all federal, state, and USMC regulations for abatement and disposal of special hazards. If present, all ACM-, LBP-, and PCB-contaminated debris would be disposed at a USEPA-approved landfill.

Long-term, minor, beneficial impacts would occur from providing hazardous materials storage for the MHE maintenance facility in/on appropriate secondary containment inside the MHE maintenance facility. Storing hazardous material indoors and with secondary containment would prevent spills outdoors, reduce exposure potential, and adhere to proper storage procedures. No hazardous materials would be stored at the facility in excess of the Maximum Allowable Quantities in accordance with International Building Code 307. Any hazardous materials or wastes used or generated under the Proposed Action would be handled and disposed in accordance with federal, state, and USMC guidelines.

# 3.6 Air Quality

This discussion of air quality includes criteria pollutants, regulatory standards, emissions sources, permitting, and climate change and greenhouse gases (GHGs). Air quality is defined by the concentration of various pollutants within the atmosphere. A region's air quality is influenced by many factors, including the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological

conditions. Most air pollutants originate from human-made sources, including mobile sources (e.g., cars, trucks, buses), stationary sources (e.g., factories, refineries, power plants), and indoor sources (e.g., some building materials and cleaning solvents). Air pollutants are also released from natural sources such as volcanic eruptions and forest fires. Air pollution occurs when one or more pollutants (e.g., dust, fumes, mist, odor, smoke, vapor) is present within the outdoor atmosphere in quantities great enough to cause adverse health effects to humans and harm to the natural environment, including plant and animal life.

# 3.6.1 Regulatory Setting

*Criteria Pollutants, National Ambient Air Quality Standards (NAAQS), and the General Conformity Rule.* The six pollutants that are the main indicators of air quality, called "criteria pollutants," include carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, ozone (O<sub>3</sub>), suspended particulate matter (measured less than or equal to 10 microns in diameter [PM<sub>10</sub>] and less than or equal to 2.5 microns in diameter [PM<sub>2.5</sub>]), and lead. CO, sulfur oxides (SO<sub>X</sub>), nitrogen oxides (NO<sub>X</sub>), lead, and some particulates are emitted directly into the atmosphere from emissions sources. NO<sub>X</sub>, O<sub>3</sub>, and some particulates also are formed through atmospheric chemical reactions that are influenced by weather, ultraviolet light, and other atmospheric processes. Volatile organic compounds (VOCs) and NO<sub>X</sub> emissions are precursors of O<sub>3</sub> and are used to represent O<sub>3</sub> generation.

Under the Clean Air Act (42 USC Section 85), the USEPA has established NAAQS (40 CFR Part 50) for criteria pollutants. Each state has the authority to adopt air quality standards stricter than those established under the federal NAAQS. The State of North Carolina accepts the federal NAAQS (15A NCAC Section 02D.0400). Areas that are and have historically complied with the NAAQS or have not been evaluated for NAAQS compliance are designated as attainment areas. Areas that violate a federal air quality standard are designated as nonattainment areas. Areas that have transitioned from nonattainment to attainment are designated as maintenance areas.

The USEPA General Conformity Rule applies to federal actions occurring in nonattainment or maintenance areas, and a general conformity determination is required when the total direct and indirect emissions of nonattainment and maintenance criteria pollutants (or their precursors) exceed specified thresholds. The emissions thresholds that trigger requirements for a conformity analysis are called *de minimis* levels. *De minimis* levels (in tons per year [tpy]) vary by pollutant and also depend on the severity of the nonattainment status for the area in question (40 CFR Section 93.153). The General Conformity Rule does not apply to federal actions occurring in attainment areas.

*Hazardous Air Pollutants (HAPs) and Toxic Air Pollutants (TAPs).* In addition to the NAAQS for criteria pollutants, USEPA implements national standards for HAPs (42 USC Section 7412). The *National Emission Standards for Hazardous Air Pollutants* regulate emissions of 188 HAPs from stationary sources (40 CFR Part 61), including emissions of HAPs from numerous industrial and commercial sources (40 CFR Part 63). Examples of HAPs include benzene, asbestos, and VOCs. North Carolina regulates 92 TAPs from stationary sources under the North Carolina Toxics Program. Of the TAPs, 14 are not classified as HAPs while 78 are

common to both lists. HAPs emitted from mobile sources are called Mobile Source Air Toxics, which are compounds emitted from fuel combustion in vehicles and non-road equipment. The USEPA *Final Rule for Control of Emissions of Hazardous Air Pollutants from Mobile Sources* (40 CFR Part 80) sets gasoline and vehicle emission standards.

*Climate Change and GHGs.* Global climate change refers to long-term fluctuations in temperature, precipitation, wind, sea level, and other elements of Earth's climate system. Ways in which Earth's climate system may be influenced by changes in the concentration of various gases within the atmosphere have been discussed worldwide. Of particular interest, GHGs are gaseous emissions that trap heat within the atmosphere. GHGs include water vapor, carbon dioxide (CO<sub>2</sub>), methane, NO<sub>X</sub>, O<sub>3</sub>, and several fluorinated and chlorinated gaseous compounds. To estimate global warming potential, all GHGs are expressed relative to a reference gas, CO<sub>2</sub>, which is assigned a global warming potential equal to one. All GHGs are multiplied by their global warming potential, and the results are added to calculate the total equivalent emissions of  $CO_2$  (CO<sub>2</sub>e). The dominant GHG emitted is CO<sub>2</sub>, accounting for 79 percent of all U.S. GHG emissions as of 2020, the most recent year for which data are available (USEPA 2022b).

Most GHGs occur naturally within the atmosphere; however, increases in concentrations result from human activities, such as burning fossil fuels. Scientific evidence indicates a trend of increasing global temperature over the past century because of an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce negative economic and social consequences across the globe.

EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, signed January 20, 2021, reinstated the Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, issued on August 5, 2016, by CEQ, that required federal agencies to consider GHG emissions and the effects of climate change in NEPA reviews. EO 13990 requires federal agencies to capture the full costs of GHG emissions as accurately as possible, including taking global damages into account. Doing so facilitates sound decision-making, recognizes the breadth of climate impacts, and supports the international leadership of the U.S. on climate issues (CEQ 2016). Accordingly, estimated CO<sub>2</sub>e emissions associated with the Proposed Action are provided in this EA for informative purposes.

EO 14008, *Tackling the Climate Crisis at Home and Abroad*, strengthens EO 13990 by implementing objectives to reduce GHG emissions and bolster resilience to the impacts of climate change.

USEPA implements the GHG Reporting Program, requiring certain facilities to report GHG emissions from stationary sources, if such emissions exceed 25,000 metric tons of CO<sub>2</sub>e per year (40 CFR Part 98).

The DoN's 2030 Climate Action Plan includes targets and goals to reduce emissions, reduce energy demand at DoN and USMC installations, and commit these Services to the nation's commitment to net-zero GHG emissions by 2050, in accordance with EO 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability* (i.e., the "Federal

Sustainability Plan"). Accordingly, the DoN is developing plans and initiatives to reduce GHG emissions by 65 percent from 2008 levels by 2030, acquire 100 percent zero-emission vehicles by 2035, and achieve a 50 percent reduction in emissions from buildings by 2032 (DoN 2022).

# 3.6.2 Affected Environment

USEPA and NCDEQ regulate air quality in North Carolina. The project area is in Craven County, North Carolina, which is within the Southern Coastal Plain Intrastate Air Quality Control Region (40 CFR Section 81.152). USEPA has designated Craven County as in attainment for all criteria pollutants (USEPA 2022c). As such, the General Conformity rule is not applicable to emissions of criteria pollutants within the county.

NCDEQ oversees programs for permitting the construction and operation of new or modified stationary sources of air emissions in the state. MCAS Cherry Point is a major source of air emissions, meaning it emits, or has the potential to emit, 100 tpy or more of any criteria pollutant (excluding lead); 25 tpy or more of lead; or 10 tpy or more of any HAP (15A NCAC Section 02Q). As such, MCAS Cherry Point maintains a Title V operating permit (Permit Number 04069T42) for stationary emissions sources. Stationary sources regulated under the Title V permit include combustion heaters, diesel-fired emergency generators, and fuel storage tanks (NCDEQ 2022b). There are no regulated sources of air emissions within the project area. FRC East, which operates just west of the project area, maintains a separate Title V operating permit (Permit Number 05506T45) for stationary emissions sources (NCDEQ 2022c). **Table 3-2** summarizes the actual emissions for MCAS Cherry Point and FRC East in 2020 and provides a percent of total reported 2017 emissions for Craven County. VOC and NO<sub>x</sub> emissions are used to represent O<sub>3</sub> generation because they are precursors of O<sub>3</sub>.

Source Type	NO <sub>x</sub> (tpy)	VOC (tpy)	CO (tpy)	SO <sub>x</sub> (tpy)	РМ₁₀ (tру)	РМ <sub>2.5</sub> (tpy)	CO₂e (tpy)		
MCAS Cherry Point (2020 Air Emissions Inventory)									
Stationary Sources	20.63	8.77	33.75	52.12	4.86	4.71	Not available		
FRC East (2020 Air Emissions Inventory)									
Stationary Sources	10.66	31.39	4.74	2.36	4.61	4.59	3,277.68		
Craven County, North Carolina (2017 Air Emissions Inventory)									
Total Stationary, Mobile, and Area Sources	3,488.025	21,400.66	25,326.25	846.105	3,840.182	1,625.29	2,416,487		
MCAS Cherry Point and FRC East (2020) Percent of Craven County Total Inventory (2017)									
Percent	0.90	0.19	0.15	6.44	0.25	0.57	-		

Table 3-2.MCAS Cherry Point and FRC East (2020) and Craven County (2017) Air<br/>Emissions Inventories

Sources: NCDEQ 2022b; NCDEQ 2022c; NCDEQ 2022d; USEPA 2021

*Climate Change and GHGs.* Ongoing global climate change within the southeastern U.S., including North Carolina, has contributed to rising seas and retreating shores, increased storm intensity, increased precipitation, decreased crop productivity, disruption of natural ecosystems, and human health effects (Carter et al. 2018). Changes to regional climate patterns could result

in regional changes to flooding frequency and intensity, reduced air quality, damage to homes and transportation infrastructure, and increased consumption of electricity. Cities, roads, ports, and water supplies in the Southeast are vulnerable to the impacts of storms and sea level rise (USEPA 2016). The topography of the project area ranges from 20 to 26 feet and is not within the 100-year floodplain or the reach of tidal influence (MCAS Cherry Point 2012). High air temperatures can cause adverse health effects (e.g., heat stroke, dehydration), especially in vulnerable populations, which can affect cardiovascular and nervous systems. Warmer air can also increase the formation of ground-level O<sub>3</sub>, which can lead to a variety of health effects, including aggravation of lung diseases and increased risk of death from heart or lung disease (USEPA 2016). Once emitted, air pollutants may be dispersed via air, water, soil, and living organisms. Dispersion pathways depend to a large extent upon environmental conditions, such as wind speed and topography.

Historically, the average high temperature in Havelock, North Carolina, is 80.4 degrees Fahrenheit during the hottest month of July, and the average low temperature is 45.1 degrees Fahrenheit during the coldest month of January. The region has an average annual precipitation of 66.9 inches per year. The wettest month of the year is August, with an average rainfall of 8.1 inches (Idcide 2022). In 2020, North Carolina produced 106.5 million metric tons (117.4 million tons) of CO<sub>2</sub> emissions and was ranked the thirteenth highest producer of CO<sub>2</sub> within the U.S. (USEIA 2019). Total CO<sub>2</sub>e emissions produced by FRC East in 2020 comprised approximately 0.14 percent of the CO<sub>2</sub>e emissions produced by the state.

### 3.6.3 Environmental Consequences

Impacts on air quality are based on estimated direct and indirect emissions associated with the Proposed Action. These impacts would be considered significant if the Proposed Action were to result in the violation of applicable federal, state, or local air quality regulations, or significantly decrease the air quality for Craven County. The area of interest for assessing air quality impacts is the air basin in which the project is located: Craven County, North Carolina.

Based on compliance with the NAAQS, the General Conformity Rule is not applicable to emissions of criteria pollutants in Craven County. Therefore, estimated emissions from the Proposed Action were compared to the 250 tpy Prevention of Significant Deterioration (PSD) major source threshold, as defined by USEPA, for each criteria pollutant except for lead. The PSD threshold for lead is 25 tpy. The threshold indicators do not denote a significant impact; however, they do provide a threshold to identify actions that have insignificant impacts to air quality. For actual operations and regulatory purposes, the PSD major source thresholds only apply to stationary sources; however, they are applied in this EA to both stationary and mobile sources as a surrogate indicator of significance in an attainment area.

#### 3.6.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur and consequent air emissions from construction and operation would not be produced. Air quality conditions would remain unchanged from the existing conditions described in **Section 3.6.2**. Therefore, no significant impacts on air quality would occur under the No Action Alternative.

#### 3.6.3.2 PROPOSED ACTION

Short-term, minor, adverse impacts on air quality would occur during construction. Construction activities such as site grading, trenching, building construction, architectural coatings, and paving would produce emissions of criteria pollutants and GHGs from operation of heavy equipment, workers commuting to and from the project area in their personal vehicles, heavy duty diesel vehicles hauling materials and debris to and from the project area, and ground disturbance. Air emissions from construction would be localized to the project area and produced only when construction activities are occurring, between 2027 and 2029. Dispersion of air pollutants would be influenced by prevailing weather conditions, such as wind speed and direction.

Construction equipment would be operated intermittently for the duration of construction and would produce negligible ambient HAPs in a localized area. As a result, HAP and TAP emissions are not considered further in this analysis.

The total estimated emissions from construction under the Proposed Action are summarized in **Table 3-3**. Detailed air emissions calculations are included in **Appendix B**. The total net annual emissions from construction would not be expected to exceed the PSD significance indicator of 250 tpy (25 tpy for lead). Therefore, adverse air quality impacts from construction air emissions would not be significant.

Year	NO <sub>x</sub> (tpy)	VOC (tpy)	CO (tpy)	SO <sub>X</sub> (tpy)	PM₁₀ (tpy)	РМ <sub>2.5</sub> (tpy)	Lead (tpy)	CO₂e (tpy)
2027 (Construction)	0.483	2.884	3.503	0.009	80.384	0.099	<0.001	1,067.5
2028 (Construction)	1.986	0.274	2.486	0.006	0.058	0.057	<0.001	754.2
2029 (Construction)	1.828	4.583	2.328	0.005	0.062	0.061	<0.001	648.2
2031 and Later (Operation)	1.836	0.105	1.539	0.016	0.143	0.143	<0.001	2,185.4
Maximum	1.986	4.583	3.503	0.009	80.384	0.099	<0.001	2,185.4
PSD Threshold	250	250	250	250	250	250	25	NA
Exceeds PSD Threshold?	No	No	No	No	No	No	No	NA

 Table 3-3.
 Estimated Annual Air Emissions from the Proposed Action

The air pollutant of greatest concern is particulate matter, mainly as fugitive dust, which is generated from ground disturbing activities and combustion of fuels in construction equipment. The quantity of uncontrolled fugitive dust emissions from a construction site is proportional to the area of land being worked and the level of activity. Fugitive dust emissions would be greatest during initial site preparation and site grading activities, and would vary from day to day depending on the work phase, level of activity, and prevailing weather conditions. Construction activities would incorporate BMPs and environmental control measures (e.g., wetting the ground surface) to minimize fugitive dust emissions. In addition, work vehicles would be well maintained and use diesel particulate filters to reduce emissions of criteria pollutants. All non-road diesel equipment would comply with the federal Clean Air Nonroad Diesel Rule, which regulates emissions from nonroad diesel engines and sulfur content in nonroad diesel fuel.
Long-term, negligible, adverse impacts on air quality would occur from operation of the GPW and MHE maintenance facility. It is anticipated the GPW and MHE maintenance facility would be operational in 2031. Air emissions would be directly produced from operation of heating and cooling systems at the new facilities, operation of a diesel emergency generator for controlled humidity equipment, and the 10 truck trips to and from the GPW. Annual air emissions from operations are summarized in **Table 3-3**. The annual net change of criteria pollutant emissions starting in 2031 would not exceed the 250 tpy (25 tpy for lead) PSD significance indicator for all criteria pollutants. Therefore, adverse air quality impacts from operational air emissions would not be significant.

To account for the new heating system (i.e., natural gas-fired boiler) and emergency generator, the Title V permit would be modified by the installation air program manager and submitted to NCDEQ for approval. Emissions from this new equipment would be included in the annual air emissions inventory reviewed by NCDEQ.

**Climate Change and GHGs.** Construction of the GPW and MHE maintenance facility under the Proposed Action would produce an annual maximum of 1,067.5 tons of direct CO<sub>2</sub>e during construction, which is approximately the GHG footprint of 209 passenger vehicles driven for one year or 122 homes' energy use for 1 year (USEPA 2022d). In 2017, Craven County produced 2,416,487 tons of CO<sub>2</sub>e emissions. Emissions from construction during the highest CO<sub>2</sub>e emission year under the Proposed Action would represent less than 0.05 percent of the total CO<sub>2</sub>e emissions from the county in 2017. Operation of the GPW and MHE maintenance facility would produce 2,185.4 tons of CO<sub>2</sub>e annually, which is equivalent to the GHG footprint of 427 passenger vehicles driven for 1 year or 250 homes' energy use for 1 year (USEPA 2022d). These emissions would represent less than 0.1 percent of the total CO<sub>2</sub>e emissions produced by Craven County. As such, air emissions produced during construction and operation of the new facilities would not meaningfully contribute to the potential effects of global climate change and would not notably increase the total CO<sub>2</sub>e emissions produced by Craven County.

Ongoing changes to climate patterns within North Carolina are unlikely to affect the DLA Depot's ability to implement the Proposed Action. All elements of the Proposed Action, in and of themselves, are only indirectly dependent on any of the elements associated with future climate scenarios (e.g., meteorological changes). The project area is not within the 100-year floodplain and is outside the reach of tidal influence. To reduce exposure to potential flooding caused by climate change, the GPW would be sited outside the area prone to potential flooding, and design of the GPW would incorporate LID features such as bioswales or rain gardens near impervious surfaces. In addition, stormwater would be collected via a stormwater drainage ditch and expanded stormwater detention pond to reduce the flooding potential at the GPW and mitigate the risk of damage from severe storms. At the time of this analysis, no future climate scenario or potential climate stressor (e.g., rising seas and retreating shores, increased storm intensity, increased precipitation) would have appreciable effects on any element of the Proposed Action, nor would the Proposed Action meaningfully contribute to the occurrence of such events.

### 3.7 Noise

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human and animal ear. Noise is any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Response to noise varies depending on the type and characteristics of the noise, such as distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as aircraft operations, construction, or vehicular traffic.

Sound varies by intensity and frequency. Sound pressure level, described in units of decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz units are used to quantify sound frequency. The human ear responds differently to different frequencies. A-weighted decibels (dBA) approximates a frequency response expressing the perception of sound by humans. Common sounds encountered in daily life and their levels are provided in **Table 3-4**.

Outdoor	Sound Level (dBA)	Indoor
Car horn	110	Rock band
Gas lawnmower at 3 feet	95	Food blender at 3 feet
Downtown (large city)	80	Garbage disposal at 3 feet
Busy highway at 50 feet	75	Vacuum cleaner at 10 feet
Normal conversation	60	Normal speech at 3 feet
Quiet urban daytime	50	Dishwasher in next room
Quiet residential daytime	40	Theater, large conference room

#### Table 3-4. Common Sounds and Levels

Sources: FAA 2022, CHC 2022

**Noise Metrics.** A metric is a system for measuring or quantifying a particular characteristic of a subject. Since noise is a complex physical phenomenon, different noise metrics help to quantify the noise environment. The noise metrics relevant to this EA are the Day-Night Average Sound Level (DNL) and the equivalent sound level ( $L_{eq}$ ).

- DNL—This metric is the energy-averaged sound level measured over a 24-hour period, with a 10-dB penalty assigned to noise events occurring between 10 p.m. and 7 a.m. (acoustic night). DNL values are average quantities, mathematically representing the continuous sound level that would be present if all of the variations in sound level that occur over a 24-hour period were averaged to have the same total sound energy.
- L<sub>eq</sub>— This metric is the average sound level in dB of a given event or period of time.

The federal government supports conditions free from noise that threaten human health and welfare and the environment. Response to noise varies, depending on the type and characteristics of the noise, distance between the noise source and whoever hears it (the receptor), receptor sensitivity, and time of day. A noise sensitive receptor is defined as a land use where people involved in indoor or outdoor activities may be subject to stress or

considerable interference from noise. Such locations or facilities often include residential dwellings, hospitals, nursing homes, educational facilities, and libraries. Sensitive receptors may also include noise sensitive cultural practices, some domestic animals, or certain wildlife species.

#### 3.7.1 Regulatory Setting

Under the Noise Control Act of 1972, the Occupational Safety and Health Administration established workplace standards for noise. The minimum requirement states that constant noise exposure must not exceed 90 dBA over an 8-hour period. The highest allowable sound level to which workers can be constantly exposed is 115 dBA, and exposure to this level must not exceed 15 minutes within an 8-hour period. The standards limit instantaneous exposure, such as impact noise, to 140 dBA. If noise levels exceed these standards, employers are required to provide hearing protection equipment to reduce sound levels to acceptable limits (OSHA 2008). DoD Instruction 4715.13, DoD Operational Noise Program, established policy, assigns responsibilities, and prescribes procedures for administering the DoD Operational Noise Program and managing military noise. Noise levels and land use compatibility at MCAS Cherry Point are maintained through the AICUZ program, which is administered through the Chief of Naval Operations Instruction 11010.36D and MCO 11010.16A. Noise guidelines for the City of Havelock are presented in the Code of Ordinances, Chapter 93: Noises, in addition to adherence to development guidelines identified in the AICUZ. Both the City of Havelock and Craven County require disclosures to home buyers regarding the presence of "commercial, industrial, or military noise" affecting the property (MCAS Cherry Point 2014).

#### 3.7.2 Affected Environment

The predominant noise sources at MCAS Cherry Point consist of aircraft operations, both at and around the airfields. All major noise sources are located along the flight line to the northwest of the project area. In addition to aircraft noise, on-installation construction, aircraft ground support equipment for maintenance purposes, and vehicle traffic produces noise; however, that noise is temporary and negligibly contributes to the average noise level. The project area is within the aircraft generated noise contours and range from 70 to 75 dBA DNL, as shown in **Figure 3-3**.

MCAS Cherry Point's AICUZ program is implemented to prevent encroachment of incompatible development and provides a quieter, safer environment for the surrounding community (MCAS Cherry Point 2007). AICUZ guidelines define zones of high noise and recommend uses compatible with these zones (MCAS Cherry Point 2014). The project area is located within Noise Zones 2 (65–75 DNL) and 3 (>75 DNL), due to its proximity to the airfield, which are suitable for industrial and operational purposes. Refer to **Section 3.8** for more information regarding land use compatibility.

Because the project area is largely forested with a mix of hardwoods and conifers, some airfield and operations noise is absorbed by the trees, providing partial noise abatement for adjacent off-installation areas all year.



Figure 3-3. Aircraft-Generated Baseline Noise Contours within the Project Area

The nearest sensitive receptors (i.e., facilities with noise sensitive uses, such as childcare centers, hospitals, or residential areas) are off-installation, approximately 200 to 1,500 feet away from the project area. The project area is located approximately:

- 200 feet across North Carolina Highway 101 from Excel Learning Center 6, a local daycare;
- 300 feet across North Carolina Highway 101 from a residential neighborhood;
- 500 feet from Embracing Differences, a local daycare;
- 1,100 feet from Havelock High School; and
- 1,500 feet from Roger Bell New Tech Academy

The nearest on-installation sensitive receptor is the residential neighborhood approximately 1 mile to the west of the project area.

#### 3.7.3 Environmental Consequences

Analysis of potential noise impacts is based on changes to the ambient noise environment or potential changes to land compatibility from noise caused by implementation of the Proposed Action. Impacts on noise would be considered significant if the Proposed Action were to result in the violation of applicable federal or local noise regulations, create appreciable areas of incompatible land use outside the installation boundary, or result in noise that would negatively affect the health of the community.

#### 3.7.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur, and no change would occur to baseline noise levels. The noise environment would remain unchanged from the existing conditions described in **Section 3.7.2**. Therefore, no significant impacts on noise would occur under the No Action Alternative.

#### 3.7.3.2 PROPOSED ACTION

Short-term, minor, adverse impacts on the noise environment would occur due to the use of heavy equipment and construction traffic during construction and demolition. **Table 3-5** presents typical noise levels (dBA at 50 feet) for the main phases of outdoor construction. Individual pieces of heavy equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet (USEPA 1971, FHWA 2006). With multiple pieces of equipment operating concurrently, noise levels could be relatively high within several hundred feet of construction sites.

Construction Phase	L <sub>eq</sub> (dBA)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

#### Table 3-5. Noise Levels Associated with Outdoor Construction

Source: USEPA 1971, FHWA 2006

All construction and demolition would occur within the installation's boundary, be collocated with other existing noise-compatible activities, be temporary in nature, and end with the facility construction phase. These activities would be conducted in the context of an active installation where aircraft and other types of military noise are typical. Some people living or working near the project area may notice or be annoyed by the noise. The nearest sensitive receptors would generally experience noise levels at or below 80 dBA from construction equipment operation because they are more than 200 feet away. Given the temporary nature of proposed construction and demolition, distance to nearby noise sensitive areas, and the existing noise environment, these impacts would be minor. The following management actions would be performed to further reduce any realized noise impacts:

- Heavy equipment use would primarily occur during normal weekday business hours.
- Heavy equipment mufflers would be properly maintained and in good working order.
- Personnel, particularly equipment operators, would wear adequate personal hearing protection to limit exposure and ensure compliance with federal health and safety regulations.

Increased traffic due to construction would cause additional traffic noise to and from the project area. Because traffic noise already occurs along North Carolina Highway 101 and the additional traffic would be temporary, impacts on the noise environment from construction traffic would be minor.

Long-term, negligible, adverse impacts on the noise environment would occur from POV and truck traffic commuting to and from the new GPW and from outdoor operations. No additional POV or truck traffic would be required, but the existing GPW traffic noise would be relocated, with the rerouting of 10 truck trips along existing roadways leading to the new GPW rather than those leading to the warehouses currently used by the DLA Depot. Because this would consist of only 10 trucks daily and be in proximity to North Carolina Highway 101, adverse impacts on the noise environment would be negligible. Because no additional POV or truck trips would be required, the 10 trucks would represent existing traffic on the installation. In addition to operational noise associated with the new GPW, the clearing of 33.3 acres of forested land would augment the impact of aircraft and operational noise from the installation at-large on the off-installation sensitive receptors because a portion of the tree buffer that is currently absorbing sound year-round would be removed. Because the community is accustomed to aircraft and general operational noise on the installation, the existing North Carolina Highway 101 traffic and operational noise from the new GPW would not be audible in the presence of aircraft noise, and noise from GPW operations would generally be quieter than noise from existing operations and traffic, these impacts would also be negligible. Adverse impacts would be further reduced by revegetation of the project area and installation of facilities upon completion of the construction phase, which would provide partial noise abatement.

## 3.8 Land Use

Land use refers to the human use of land for economic production; residential, religious, recreational, or other purposes; and natural resource protection. Land uses are regulated by

management plans, policies, and zoning ordinances. Nearly all resource areas considered in a NEPA analysis have land use connections. Land use can cause, or be affected by, effects on air, water, geology, soil, noise, flora and fauna, cultural resources, visual resources, transportation, and socioeconomics. Factors affecting a proposed action in terms of land use include its compatibility with onsite and adjacent land uses, restrictions on public access to land, or change in an existing land use that is valued by the community.

#### 3.8.1 Regulatory Setting

The regulatory setting for land use includes federal, state, and local statutes, regulations, plans, policies, and programs applicable to land use management on installations and adjacent areas. Land use planning ensures orderly growth and compatible uses among adjacent property parcels or areas; however, no nationally recognized convention or uniform terminology for describing land use categories exists. As a result, the meanings of various land use descriptions, labels, and definitions vary among jurisdictions. The *Craven County, North Carolina CAMA Core Land Use Plan* (Craven County 2009), approved in 2009, was developed in compliance with the North Carolina Coastal Area Management Act (CAMA) requirements for coastal counties, as described in **Section 3.9**.

#### 3.8.2 Affected Environment

*Land Use.* Land use within Craven County is primarily agricultural and low-density residential (70 percent), followed by government and institutional land use (19 percent). Land classified as agricultural and low-density residential includes large tracts used for farming and related activities, and includes areas of low-density residential development. Approximately 68 percent of the county is used for agricultural purposes, with a majority located within the northern portion of the county where land is best suited for this purpose (MCAS Cherry Point 2012). Craven County does not have any county-wide zoning ordinances that regulate the location of land uses. The only county ordinance affecting the project area is the *Craven County Marine Corps Air Station Zoning Ordinance*, which addresses noise on the eastern side of MCAS Cherry Point adjacent to the City of Havelock (Craven County 2009).

Existing land use on MCAS Cherry Point has been shaped by the military aviation mission. Much of the early development of the installation followed a logical progression within the physical parameters of the airfield's configuration. Facility development and supporting infrastructure further evolved over time as missions and requirements changed or expanded. MCAS Cherry Point consists of the following land use categories: airfield, training (simulator, range, ground maneuver), operations, maintenance, production, industrial, ordnance storage, medical, administration, community/personnel support, enlisted billeting, family housing, and recreation. The airfield land use category is defined by the installation's runways and associated clear zones. All land area that is not considered incompatible by range munitions standards is considered a ground maneuver training area. Areas designated industrial are primarily along the A Street/6th Avenue corridor and are arranged in a discontinuous pattern. Housing, another major land use category, consists of several areas on the installation that have been privatized and are fully operational (MCAS Cherry Point 2014). The project area is within the 65–75 dBA DNL and >75 dBA DNL noise contours associated with the MCAS Cherry Point airfield. Because of its proximity to the airfield and location within the noise contours, land uses suitable for the project area include industrial and operational. The 2014 *Marine Corps Air Station Cherry Point Master Plan* identifies the project area within a zone for future public and private development, and includes land resources for flight maintenance and air operations support. Ample space is available within the secured area for other redevelopment opportunities to occur (MCAS Cherry Point 2014). The project area is in the Utilities Plan (Hancock Village) currently being developed and a new Area Development Plan as part of the MCAS Cherry Point Master Plan update (DLA DM-FD 2022). Recent development within the FRC East complex, west of the project area, includes a high-quality Research & Development facility within a secured perimeter and direct access to the flightline. Land use in this area is industrial, specifically Flightline Industrial (MCAS Cherry Point 2014). Land use constraints within the project area include a Timber Harvest Area, hunting area, wetlands, and the 65–75 dBA DNL and >75 dBA DNL noise contour areas (DLA DM-FD 2022).

**Recreation.** The recreation land use category on the installation includes a golf course, athletic fields, and park and picnic areas (MCAS Cherry Point 2014). The Sound of Freedom golf course is located nearly 6 miles north of the project area. Other recreation land uses, including a marina, are located near the mouth of the Hancock River. Access to the marina, located at Hancock Lodge, is approximately 7 miles north of the project area.

#### 3.8.3 Environmental Consequences

Impacts on land use would be considered significant if the Proposed Action were to result in substantial new development or prevent such development elsewhere, or if it substantially affected visual resources by introducing intrusive visual elements into the landscape in terms of vegetation, topography, or structures when viewed from points readily accessible by the public.

#### 3.8.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur, and existing conditions would remain unchanged from those described in **Section 3.8.2**. Therefore, no significant impacts on land use would occur under the No Action Alternative.

#### 3.8.3.2 PROPOSED ACTION

*Land Use.* Long-term, negligible, adverse effects would occur because the construction activities would disturb approximately 33.3 acres and increase impervious surfaces by approximately 15.7 acres (DLA 2022b). This would be considered a negligible impact on overall timber management on the installation because the project area represents less than 0.4 percent of the total forested land on MCAS Cherry Point. MCAS Cherry Point began the process of harvesting the merchantable timber in spring 2022, with completion expected by winter 2023 (early 2023). Nonmerchantable vegetation would be cleared and grubbed prior to construction.

Long-term, negligible to minor, adverse effects on land use would occur. The GPW and associated facilities would be consistent with the 2014 *Marine Corps Air Station Cherry Point Master Plan*, which identifies the project area as a zone for future public and private development (DLA 2022b, MCAS Cherry Point 2014). The designated land use category for the

project area (industrial and operational) would not change because the Proposed Action would be consistent with this land use category, and FRC East has previously constructed several new similar industrial facilities within the vicinity (DLA 2022b). Because the project area is part of the Utilities Plan (Hancock Village) in development and a new Area Development Plan, specifics of final site development may be affected (DLA DM-FD 2022).

Long-term, minor, beneficial impacts would occur from enhancement of the functional relationship between DLA Depot facilities and streamlining operations. The Proposed Action would consolidate DLA Depot operations into a modern and efficient facility, thereby decreasing response times.

**Recreation.** Long-term, negligible, adverse impacts on the recreational (e.g., hunting, fishing, hiking/biking trails) value of the installation would occur from eliminating approximately 33.3 acres of vegetation with viable hunting opportunities. MCAS Cherry Point is federal land used for military training and operation, some of which is open for use to hunt, fish, trap, and harvest nonmerchantable firewood when training is not occurring (Military Installations 2022). The project area contains less than 0.2 percent of the total undeveloped land on the installation available for hunting, resulting in negligible impacts on recreation from the loss of this hunting value.

## 3.9 Coastal Zone

The coastal zone is the interface between land and water, and is vital to the well-being of the U.S. It supports half of the nation's population and supports ecologically important habitat and natural resources.

#### 3.9.1 Regulatory Setting

Through the CZMA of 1972, Congress established national policy to preserve, protect, develop, restore, or enhance resources within the coastal zone. This act encourages coastal states to properly manage use of their coasts and coastal resources, prepare and implement coastal management programs, and provide for public and governmental participation in decisions affecting the coastal zone. To this end, the CZMA imparts an obligation upon federal agencies whose actions or activities affect any land or water use or natural resource of the coastal zone to be carried out in a manner consistent, to the maximum extent practicable, with the enforceable policies of federally approved state coastal management programs. As federal agencies, DLA and USMC are required to determine whether their proposed activities would affect the coastal zone. This takes the form of a consistency determination, a negative determination, or a determination that no further action is necessary.

In accordance with the federal CZMA, CAMA created a cooperative program of coastal area management between local and state governments as well as established the North Carolina Coastal Resources Commission. The North Carolina Coastal Management Program was federally approved in 1978. North Carolina's coastal zone includes the 20 counties, including Craven County, that are adjacent to, adjoining, intersected by, or bounded by the Atlantic Ocean or any coastal sound. The coastal zone extends seaward to the 3-nautical-mile territorial sea limit.

The *Craven County, North Carolina CAMA Core Land Use Plan*, adopted by the Craven County Board of Commissioners on August 3, 2009, and certified by the Coastal Resource Commission on October 30, 2010, addresses land use planning in relation to CAMA (Craven County 2009). Coastal shorelines are defined as all lands within 75 feet of the normal high water level of estuarine waters. This definition also includes lands within 30 feet of the normal high water level of public trust waters located inland of the dividing line between coastal and inland fishing waters.

Two tiers of regulatory review are conducted for projects within the coastal zone: Areas of Environmental Concern (AECs), which are designated by the North Carolina Coastal Resources Commission; and land uses with the potential to affect coastal waters, even though they are not defined as AECs. The North Carolina Coastal Resources Commission designates AECs within the 20 coastal counties and sets rules for managing development within these areas. An AEC is an area of natural importance. These areas may be easily destroyed by erosion or flooding, or may have environmental, social, economic, or aesthetic values that make them valuable. The classification protects the area from uncontrolled development. Projects located within an AEC undergo a more thorough level of regulatory review. AECs include almost all coastal waters and approximately 3 percent of the land within the 20 coastal counties. The four categories of AECs are:

- Estuarine and Ocean System, which includes public trust areas, estuarine coastal waters, coastal shorelines, and coastal wetlands
- Ocean Hazard System, which includes components of barrier island systems
- Public Water Supplies, which include certain small surface water supply watersheds and public water supply well fields
- Natural and Cultural Resource Areas, which include coastal complex natural areas; areas providing habitat for federal or state designated rare, threatened or endangered species; unique coastal geologic formations; or significant coastal archaeological or historic resources

Projects that are located outside of an AEC are reviewed under the General Policy Guidelines. CAMA sets forth 11 General Policy Guidelines addressing:

- Coastal energy policies
- Coastal water quality policies
- Floating structure policies
- Mitigation policies
- Policies on beneficial use and availability of materials resulting from the excavation or maintenance of navigational channels
- Policies on use of coastal airspace
- Policies on ocean mining

- Policies on water- and wetland-based target areas for military training areas
- Post-disaster policies
- Shorefront access policies
- Shoreline erosion policies

The purpose of these rules is to establish generally applicable objectives and policies to be followed in the public and private use of land and water areas within the coastal area of North Carolina.

#### 3.9.2 Affected Environment

MCAS Cherry Point is in Craven County, North Carolina, which is within North Carolina's coastal zone. The project area does not contain any of the four AECs. The potentially jurisdictional wetlands identified within the project area do not exhibit characteristics that would qualify as CAMA wetlands. The topography of the installation's interior is generally flat and ranges from approximately 15 to 30 feet above sea level. Topography on the installation slopes more noticeably near the shorelines and stream banks (MCAS Cherry Point 2014). The project area is not within coastal shorelines or public trust high water areas. Public surface water supplies do not exist within the project area vicinity. All open waters or drainage ditches found within the project area drain into a stormwater impoundment system on the installation (HDR 2022a). According to the Craven County, North Carolina CAMA Core Land Use Plan, portions of MCAS Cherry Point are considered protected lands; however, the project area is not located within these protected lands (Craven County 2009). No coastal barriers protected under the John H. Chafee Coastal Barrier Resources System nor refuge lands were identified within the project area (HDR 2022a). In 2021, Regulatory Amendment 34 established 30 Special Management Zones at artificial reef sites off the coasts of North and South Carolina. None of the North Carolina Special Management Zones apply to or are affected by the project area (NOAA 2022). No cultural resources nor known occurrences of federal or state threatened or endangered species exist within the project area. Therefore, the project area is not within an area that qualifies as an AEC under any of the four categories.

#### 3.9.3 Environmental Consequences

The location and extent of the Proposed Action were evaluated for potential effects on the coastal zone. Coastal zone impacts would be considered significant if the Proposed Action were to result in noncompliance with applicable coastal zone policies, including the requirements of the CZMA and CAMA.

Factors affecting a proposed action in terms of coastal zone include its consistency with federal and state coastal zone regulations and policies as well as compatibility with coastal uses.

#### 3.9.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur, and no change would occur to the existing land use within the coastal zone described in **Section 3.9.2**. Therefore, no significant impacts on the coastal zone would occur under the No Action Alternative.

#### 3.9.3.2 PROPOSED ACTION

The Proposed Action would result in negligible impacts on coastal zone resources. Increased turbidity in stormwater runoff would be expected from soil disturbance during construction; however, impacts to adjacent downstream receiving waters would be managed in accordance with applicable stormwater regulations and minimized using erosion control measures. No coastal wetland impacts are associated with the Proposed Action. The Proposed Action would be consistent with all General Policy Guidelines identified in **Section 3.9.1** to minimize adverse effects to natural resources. Most of the objectives do not directly apply to the Proposed Action because stormwater would be managed in accordance with applicable regulations, no in-water work would occur, and no shoreline access would be required. The project area is outside all AEC categories designated by the North Carolina Coastal Resources Commission; therefore, the Proposed Action would be consistent with the enforceable policies of North Carolina's CAMA. Therefore, the Proposed Action would not result in significant impacts on North Carolina's coastal zone. MCAS Cherry Point would submit a CZMA Consistency Determination to NCDEQ for review and concurrence prior to initiating construction.

### 3.10 Aesthetic and Visual Resources

Visual resources are defined as the natural and human-made features (e.g., landforms, vegetation, water, color, adjacent scenery, houses, other human-made modifications) that give a particular setting or area its aesthetic qualities. These features define the landscape character of an area and form the overall impression that an observer receives of that area. Evaluating the aesthetic qualities of an area is a subjective process because the value that an observer places on a specific feature varies depending on their perspective, and is influenced by social considerations (e.g., public awareness of and public value placed on the area, and community concern for the visual resources within the area).

In general, a feature observed within a landscape can be considered as characteristic (or character-defining) if it is inherent to the composition and function of the landscape. This is particularly true if the landscape or area in question is part of a scenic byway, a state or national scenic river, a state or national park, a state or national recreation area, a state or national landmark, a national seashore, or a cultural landscape. Recognition of visual resources also occurs at local levels through zoning, planning, or other public means. Landscapes can change over time, so the assessment of the environmental impacts of a proposed action on a given landscape or area must be made relative to the characteristic features currently composing the landscape or area.

Visual quality of viewsheds is categorized as low, moderate, or high. Areas of low visual quality provide views of common, aesthetically uninteresting, or unpleasing landscapes. Areas of high visual quality are attractive, interesting, and typically uncommon visual landscapes. Visual landscapes that fall somewhere between high and low are considered moderate.

#### 3.10.1 Regulatory Setting

Visual resources and viewsheds are regulated by federal, state, and local land use and zoning codes. The Proposed Action would need to comply with zoning guidance in the MCAS Cherry

Point 40-year strategic plan, Unified Facilities Criteria 2-100-01 *Installation Master Planning*, the *Craven County, North Carolina CAMA Core Land Use Plan* (Craven County 2009), and the *City of Havelock CAMA Land Use Plan* (City of Havelock 2023). In addition, MCAS Cherry Point implements exterior design guidelines that are defined in the *Base Exterior Architecture Plan for Marine Corps Air Station, Cherry Point, North Carolina* (MCAS Cherry Point 2007).

#### 3.10.2 Affected Environment

MCAS Cherry Point is located along the Neuse River and surrounded by the City of Havelock to the south and west. East of the installation is the United States Forest Service Pine Cliff Recreation Area, which is a natural area used for fishing, hunting, and general outdoor recreation. The installation and City of Havelock are largely surrounded by the Croatan National Forest/Game Lands (MCAS Cherry Point 2012). MCAS Cherry Point is generally divided to the south from the City of Havelock by North Carolina Highway 101. North Carolina Highway 101 is largely used by local residential, military, and recreational traffic.

The central developed portion of MCAS Cherry Point, north of the project area, is characteristic of a military airfield with operational facilities, hangars, parking aprons, and runways. Installation architecture, aside from residential neighborhoods, is limited to traditional or utilitarian styles to maintain a uniform visual landscape (MCAS Cherry Point 2007). Timber species across the installation consist of loblolly pine, bald cypress, red maple, sweetgum, sourwood, longleaf pine, white oak, and red oak, which provide visual contrast to developed portions of the installation.

The project area is located in a previously disturbed site north of North Carolina Highway 101, which is currently largely forested/vegetated, as shown in **Figure 3-4** and **Figure 3-5**. Due to demolition of the former Hancock Village housing area, some structural foundations and dilapidated roadways that were abandoned in place are extant within the project area.

From Sheep Road looking east, the current view of the project area is the tree line in both summer and winter due to the presence of pine trees, as evident in **Figure 3-6**. Across North Carolina Highway 101 from the project area, the eastern reaches of the central district of the City of Havelock include Havelock High School and associated outdoor facilities, a few churches, storage units, two daycare centers, and a gas station. The eastern portion of the project area is located across North Carolina Highway 101 from a residential neighborhood and the Roger Bell New Tech Academy. The current view of the project area from North Carolina Highway includes a fence line, which marks the southern boundary of the project area; vegetated areas; and cleared areas, as shown in **Figure 3-7**.

Immediately north of the project area, wetlands and forest provide a natural buffer between the project area and the airfield and runways, where vegetation is sparce and the area is paved and developed. West of the project area is a relatively newly constructed FRC East building and associated parking and infrastructure, as depicted in **Figure 3-8**. Between the FRC East building, the majority of the project area, and north and south of the Sheep Road improvements associated with the Proposed Action is a swath of forest (refer to **Figure 3-9**). The project area is buffered to the east by more forest. On the other side of that eastern forest buffer, is the southern end of Runway 14R/32L and Hancock Creek.



Source: DLA 2022b

Figure 3-4. View of the Northeastern Corner of the Project Area from Cunningham Place off Henderson Avenue, Looking Northward



Source: DLA 2022b

Figure 3-5. View of the Northern Portion of the Project Area from Henderson Avenue, Looking Eastward



Source: HDR 2022b

Figure 3-6. View Along Sheep Road with the Project Area to the East (straight ahead), Looking Eastward





Figure 3-7. View Along North Carolina Highway 101 with the Project Area to the North (on the right side), Looking Eastward



Source: DLA 2022b

Figure 3-8. View of FRC East Building 4930 and Associated Parking West of the Project Area, Looking Northward from Sheep Road



Source: DLA 2022b

Figure 3-9. View from Sheep Road to the South of Building 4930, Looking Eastward into the Forest Swath West of the Project Area

The most sensitive viewer groups within the area would be travelers along that brief portion of North Carolina Highway 101 (including recreational users traveling to and from Croatan National Forest, the Neuse River, and the United States Forest Service Pine Cliff Recreation Area) and the students and staff of Havelock High and the two daycare centers.

#### 3.10.3 Environmental Consequences

The Proposed Action would result in significant adverse impacts on visual resources if it substantially altered or impeded a scenic vista, damaged scenic resources, substantially degraded the existing visual character or quality of the area and its surroundings, or created a new source of substantial light or glare that would affect day or nighttime views. The significance of impacts on visual resources can be subjective and is based on the degree of alteration, the scenic quality of the area disturbed, and the sensitivity of the observer.

#### 3.10.3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Proposed Action would not occur, and no change to the viewshed would occur at MCAS Cherry Point. Aesthetic and visual resources would remain unchanged from the existing conditions described in **Section 3.10.2**. Therefore, no significant impacts on aesthetic and visual resources would occur under the No Action Alternative.

#### 3.10.3.2 PROPOSED ACTION

Short-term, minor, adverse impacts on aesthetic and visual resources would be expected during construction due to the presence of heavy equipment and construction activities. Construction vehicles would access MCAS Cherry Point via the Roosevelt Gate, then follow a route along Cunningham Boulevard, Marylou Road, and Sheep Road before reaching the new roadway within the project area. Because recreational traffic along North Carolina Highway 101 may be higher during weekends, when construction activity is not occurring, visual impacts on public viewers would be minimized.

Because the project area would be cleared of vegetation, the construction site would be visible to on-installation personnel and the most sensitive viewer group (off-installation) identified in **Section 3.10.2**. Although construction under the Proposed Action would alter the visual character of the area, the impact on the experience of visual resources would be temporary, with construction producing only a minor contrast to the existing visual conditions of the area and a weak contrast to other developed portions of the installation.

Long-term, minor, adverse impacts on aesthetic and visual resources would be expected from the change in viewshed for the road and City of Havelock, from a forested area to a cleared, developed area. The clearing of 33.3 acres of vegetation would prominently alter the viewshed in that southern portion of the installation. Because the project area would still be buffered by wetlands and forest to the north, separating the project area from the southern portion of the airfield, on-installation impacts would be minor. Although residents within the area are familiar with the aesthetic and visual resources of a military installation, the clearing of trees and siting of the GPW and associated facilities would change the daily viewshed for the most sensitive viewers as identified in **Section 3.10.2**. The removal of the tree line and visibility of the GPW from the local schools and businesses across North Carolina Highway 101 would have minor

impacts on public viewers. Revegetation of the project area, including the placement of typical landscaping trees, would minimize these impacts.

The location of the proposed GPW would be consistent with the 2014 *Marine Corps Air Station Cherry Point Master Plan* and the design if the GPW would be consistent with the *Base Exterior Architecture Plan for Marine Corps Air Station Cherry Point, North Carolina* (MCAS Cherry Point 2014, 2007). The proposed one-story GPW and associated facilities would be designed using a utilitarian style to be consistent with the two existing architectural styles on the installation (traditional and utilitarian), while also providing the greatest functionality. No visual resource of the cultural environment—buildings, infrastructure, or structures—would be altered by the Proposed Action.

Routing of truck traffic on MCAS Cherry Point would change through the introduction of traffic from the Roosevelt Gate to the new GPW that was previously routed from the Roosevelt Gate to the GPWs within the Core Area, where most installation activities are concentrated. The new traffic route could add visual obstructions to viewsheds, which did not exist previously. Because the existing viewsheds within these areas consist of military facilities, airfields, and operations, these impacts would be negligible.

Long-term, negligible, beneficial impacts would be expected from demolition of the abandonedin-place foundations and re-paved and maintained roadways within the project area, improving the overall aesthetics.

## 3.11 Summary of Potential Impacts on Resources, and Impact Avoidance and Minimization

A summary of the potential impacts associated with the Proposed Action and No Action Alternative is presented in **Table 3-6**. No significant impacts are anticipated.

Resource Area	No Action Alternative	Proposed Action
Water Resources	The No Action Alternative would have no significant impacts on water resources.	<ul> <li>Short-term, minor, adverse impacts would occur from ground disturbance activities that would contribute to stormwater runoff and increased rates of erosion and sedimentation. A NPDES Construction General Permit would be obtained, a site-specific SWPPP would be followed, and stormwater BMPs would be implemented to reduce sedimentation and pollution into surface waters and maintain water quality.</li> <li>Long-term, negligible to minor, adverse impacts would occur from the net loss of 33.3 acres of vegetation and net increase of 15.7 acres of impervious surfaces, which would increase stormwater runoff rates. The existing stormwater detention pond would be expanded to accommodate the increased flow rate. To reduce the potential for pollution in nearby surface waters, pollution reduction measures, including adherence to the installation NPDES permit and SWPPP, would be implemented.</li> <li>Long-term, minor, adverse impacts would occur from construction activities in open water areas and removal of wetlands in the form of 0.63 acre of fill impact to the stormwater detention pond and open water drainage ditches and 0.27 acre of fill/cut impacts to wetlands. Potentially jurisdictional Waters of the U.S., wetlands, and open waters would be avoided where possible. Because impacts on potentially jurisdictional wetlands and open waters are unavoidable, Section 404/401 permits would be completed to comply with Section 404/401 of the Clean Water Act and determine required mitigation.</li> </ul>
Biological Resources	The No Action Alternative would have no significant impacts on biological resources.	<ul> <li>Long-term, minor, adverse impacts on vegetation would occur from removal of 33.3 acres of vegetation; however, changing vegetation cover of the project area would be insignificant to the total habitat quality of remaining forested stands within the area.</li> <li>The permanent conversion of timber land to a maintained landscape could result in long-term, negligible, beneficial impacts from use of nature-based landscaping techniques.</li> <li>Short-term, minor, adverse impacts on wildlife would occur during construction, as the presence of construction equipment and associated noise would temporarily displace wildlife within the project area vicinity. Wildlife would be expected to avoid the area during construction.</li> <li>Long-term, negligible, adverse impacts on wildlife would occur from permanent loss of potential habitat from removal of 33.3 acres of vegetation.</li> <li>Long-term, negligible to minor, adverse impacts on federally listed threatened and endangered species would occur because</li> </ul>

## Table 3-6.Summary of Potential Impacts to Resources, and Impact Avoidance and<br/>Minimization

Resource Area	No Action Alternative	Proposed Action	
		no individuals of such species have been documented or are known to occur within the project area and limited suitable habitat for these species has been identified within the project area.	
Geological Resources	The No Action Alternative would have no significant impacts on geological resources.	<ul> <li>Short-term, minor, adverse impacts would occur from soil disturbance and clearing of vegetation, which would contribute to increased rates of erosion and sedimentation. Standard erosion and sedimentation BMPs and control procedures (e.g., covering exposed soils, marking areas not to be disturbed) would be implemented during construction to minimize impacts on soils.</li> <li>Long-term, minor, adverse impacts would occur from permanent removal of vegetation and increases in impervious surfaces, which would permanently reduce percolation rates and degrade the integrity of surrounding soil structures. Permanent stormwater management features would be incorporated into the final design of the GPW and associated facilities, and post-construction management procedures, as identified in the installation SWPPP, would be followed to reduce impacts on soils.</li> </ul>	
Utilities and Transportation	The No Action Alternative would have no significant impacts on utilities and transportation.	<ul> <li>Short-term, minor, adverse impacts on utilities would occur from potential temporary disruptions in utility services as new facilities are connected to utility lines. Solid waste generated from construction would be recycled, where possible, and managed in accordance with USMC and MCAS Cherry Point guidelines.</li> <li>Long-term, negligible, adverse impacts on utilities would occur from the increase in utility demand; however, it is not anticipated that the new demand would exceed the capacity of the utility systems.</li> <li>Short-term, minor, adverse impacts on transportation would occur from temporary increases in traffic during construction. Heavy construction equipment would remain within the project area during construction, which would minimize impacts on installation roadways.</li> <li>Long-term, negligible, adverse impacts on transportation would occur from the additional traffic accessing the southern portion of the installation, and long-term, negligible, beneficial impacts would occur because POV and truck traffic that would normally access the existing DLA Depot storage facilities closer to the airfield would be redirected to the GPW, reducing traffic in busier areas of the installation.</li> </ul>	

Resource Area	No Action Alternative	Proposed Action	
Hazardous Materials and Wastes	The No Action Alternative would have no significant impacts on hazardous materials and wastes.	<ul> <li>Short-term, negligible, adverse impacts would occur from the use of hazardous materials and petroleum products as well as the generation of hazardous wastes during construction. All hazardous materials and wastes would be contained, stored, and managed in accordance with applicable regulations. All equipment would be maintained according to the manufacturer's specifications, and drip mats would be placed under parked equipment as needed. Special hazards (i.e., ACM and LBP) identified within the project area in abandoned utility lines would be handled by certified contractors in accordance with all federal, state, and USMC regulations, and would be disposed at a USEPA-approved landfill.</li> <li>Long-term, minor, beneficial impacts would occur from proper storage of hazardous materials for the MHE maintenance facility indoors and in/on appropriate secondary containment. Hazardous materials would not be stored in excess of Maximum Allowable Quantities in accordance with International Building Code 307. Any hazardous materials or wastes used or generated under the Proposed Action would be handled and disposed in accordance with federal, state, and USMC guidelines.</li> </ul>	
Air Quality	The No Action Alternative would have no significant impacts on air quality.	<ul> <li>Short-term, minor, adverse impacts would occur from emissions of criteria pollutants and GHGs that would be produced from operation of heavy equipment, construction worker commutes, and ground disturbance. Air emissions would be localized to the project area. The net total emissions from construction would not exceed the PSD significance indictor for any criteria pollutant. BMPs and environmental control measures (e.g., wetting the ground surface) would be implemented to minimize emissions of fugitive dust during construction.</li> <li>Long-term, negligible, adverse impacts would occur from emissions of criteria pollutants during operation of the new GPW and associated facilities, including air emissions produced from operation of heating and cooling systems, operation of a diesel emergency generator for controlled humidity equipment, and continuation of 10 truck trips to and from the GPW. Annual emissions from operations would not exceed the PSD significance indicator. The new heating system (i.e., natural gasfired boiler) and emergency generator would be added to the installation's Title V permit, and emissions from the new sources would be included in the installation's annual air emissions inventory.</li> </ul>	

Resource Area	No Action Alternative	Proposed Action	
Noise	The No Action Alternative would have no significant impacts on noise.	<ul> <li>Short-term, minor, adverse impacts would occur from increased noise levels produced by construction equipment. To reduce noise impacts, heavy equipment use would primarily occur during normal weekday business hours, mufflers would be properly maintained and in good working order, and construction workers and equipment operators would wear adequate personal protection equipment to limit noise exposure.</li> <li>Long-term, negligible, adverse impacts would occur from POV and truck traffic traveling to and from the new GPW daily; however, because no additional POV or truck trips would be required, existing traffic on the installation would not change. Clearing of 33.3 acres of vegetation would augment the impact of aircraft and operational noise on off-installation receptors; however, the community is accustomed to general aircraft and operational noise from MCAS Cherry Point and roadway noise along North Carolina Highway 101, and noise produced from GPW operations would be consistent with such noise. Revegetation of the project area would provide partial noise abatement and reduce adverse impacts.</li> </ul>	
Land Use	The No Action Alternative would have no significant impacts on land use.	<ul> <li>Long-term, negligible, adverse impacts would occur from disturbance of 33.3 acres, removing a portion of the forested area on MCAS Cherry Point and reducing recreation opportunities. The GPW and associated facilities would be consistent with designated land use categories of the area and would be similar functions to existing buildings within the project area vicinity.</li> <li>Long-term, minor, beneficial impacts on land use would occur from enhancement of the functionality and operability of DLA operations on MCAS Cherry Point.</li> </ul>	
Coastal Zone	The No Action Alternative would have no significant impacts on the coastal zone.	<ul> <li>Short- and long-term, negligible, adverse impacts would occur from ground disturbance during construction and permanent removal of vegetation, which would result in increased turbidity in stormwater runoff. Runoff would be managed in accordance with applicable stormwater management regulations, and sedimentation in downstream receiving waters would be minimized through BMPs and management actions. A site-specific SWPPP would be developed before the start of construction. The existing stormwater detention pond would be expanded to manage the additional stormwater runoff from the increased impervious surfaces and minimize impacts on coastal resources.</li> <li>The project area is outside all categories of AECs designated by the North Carolina Coastal Resources Commission; therefore, the Proposed Action would be consistent with the enforceable policies of North Carolina's CAMA.</li> </ul>	

Resource Area	No Action Alternative	Proposed Action
Aesthetic and Visual Resources	The No Action Alternative would have no significant impacts on aesthetic and visual resources.	<ul> <li>Short-term, minor, adverse impacts would occur from the presence of heavy construction equipment and construction activities. Visual impacts on viewers would be minimized by conducting work only during normal weekday hours, when viewers are less likely to be present. Impacts would be temporary, with construction producing only a minor contrast to the existing visual conditions of the area and a weak contrast to other developed portions of the installation.</li> <li>Long-term, minor, adverse impacts would occur from the change in viewshed for North Carolina Highway 101 and the City of Havelock, from a forested area to a cleared, developed area. Residents and other viewers within the area are familiar with the aesthetic and visual resources of a military installation. Revegetation of the grouped area, including the placement of typical landscaping trees, would minimize permanent visual impacts. Siting of the GPW and associated facilities would be consistent with the 2014 Marine Corps Air Station Cherry Point Master Plan and the Base Exterior Architecture Plan for Marine Corps Air Station Cherry Point 2014, 2007).</li> <li>Long-term, negligible, beneficial impacts would be expected from demolition of the abandoned-in-place foundations and re-paved and maintained roadways within the project area, improving the overall aesthetics.</li> </ul>

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## 4 Cumulative Impacts

As noted in **Section 1.1**, this EA was prepared in accordance with the 2020 CEQ NEPA regulations (40 CFR Parts 1500–1508), as amended in 2022 (85 *Federal Register* 23453–23470); DoN Regulations for Implementing NEPA (32 CFR Part 775); USMC Environmental Compliance and Protection Program (MCO P5090.2A); and the 2019 USMC NEPA Manual, which require assessment of cumulative effects.

## 4.1 Definition of Cumulative Impacts

CEQ regulations implementing NEPA define cumulative effects or impacts as "...effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR Section 1508.1(g)(3)).

## 4.2 Scope of the Cumulative Impact Analysis

Actions that have a potential to interact with the Proposed Action at MCAS Cherry Point are included in this cumulative impact analysis. This approach enables decision makers to have the most current information available to evaluate the range of environmental consequences that would result from the Proposed Action. The assessment of cumulative impacts involves identifying and defining the scope of other actions and their interrelationship with a proposed action or alternatives. The scope must consider other projects that coincide with the location and timeline of a proposed action. In general, the study area for the cumulative impact analysis includes areas previously identified in **Section 3** for the respective resource areas. The timeframe for cumulative impacts centers on the timing of the Proposed Action.

## 4.3 Past, Present, and Reasonably Foreseeable Actions

Past actions are those actions, and their associated impacts, that occurred within the geographical extent of cumulative effects and have shaped the current environmental conditions of the project area. CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions. The effects of past actions are now part of the existing environment and are included in the affected environment described in **Sections 3.1** through **3.10**.

Present and reasonably foreseeable actions considered in this cumulative impact analysis include those actions that have a spatial or temporal relationship with the Proposed Action. If no such relationship exists, the project was not carried forward for the cumulative impact analysis. The present and reasonably foreseeable actions carried forward into the cumulative impact analysis are listed in **Table 4-1**. These actions could occur whether or not the Proposed Action is implemented. Discussion of the irreversible and irretrievable commitments of resources is provided in **Section 5**.

Action	Timeline	Description	
Basing the USMC F-35B on the East Coast	2010– 2027	The Record of Decision for the USMC East Coast Basing of the F–35B Aircraft was published in the <i>Federal Register</i> on December 15, 2010 ( <i>Federal Register</i> Volume 75, No. 240). The decision of the DoN was to base and operate 11 operational Joint Strike Fighter (JSF) squadrons and one Pilot Training Center on the East Coast, including basing 8 operational squadrons at MCAS Cherry Point. The decision included 112.8 acres of disturbance (e.g., clearing and grading, construction of facilities, new roadways and parking); a net increase of 34 aircraft; a net increase of 1,194 personnel and 2,323 dependents; and a net decrease of 12,046 airfield operations. Construction actions are on and near the airfield and within industrial areas at MCAS Cherry Point. The Environmental Impact Statement concluded no significant, immitigable impacts would occur (MCAS Cherry Point 2010). Military construction projects are underway at MCAS Cherry Point to support the incoming F-35B JSF squadrons. The first hangar and simulator facility are expected to be completed by the end of 2022. The first F-35B JSF squadron is expected to be operational by June 2023. All construction actions supporting the F-35B basing effort at MCAS Cherry Point and the basing of the remaining F-35B squadrons are expected to be completed by 2027 (USMC 2022).	
FRC East Facility Improvements in Support of F-35 Depot Capability Establishment	2013– 2033	<ul> <li>FRC East is a modern industrial complex providing maintenance, engineering, and logistics support on a variety of aircraft, engines, and components for all branches of the DoD. The DoN prepared an EA in June 2013 to evaluate the environmental impacts associated with establishing depot-level maintenance capabilities for the F-35 aircraft at FRC East at MCAS Cherry Point. Construction of new facilities in the former Hancock Village and renovation of existing facilities were analyzed. The FRC East complex is being developed along Sheep Road west of the DLA GPW. The EA concluded no significant impact on resources would occur (FRCE 2013).</li> <li>Improvement of the FRC East complex has already begun within the western portion of the former Hancock Village housing area, with the construction of a new access road, stormwater retention pond, materiel laydown areas, employee parking area, fire protection facilities, H-1 Gearbox Facility (Building 4930), and Engineering Product Support Facility (Building 4841). Programmed Military Construction projects supporting FRC East in the former Hancock Village include the following (FRCE 2022):</li> <li><u>CH-53K Gearbox Facility (2022–2026)</u> – Construction of a 31,624 SF repair/overhaul shop and test cells to perform gearbox maintenance events on H-53K Drive Systems.</li> <li><u>Composite Repair Facility (2023–2027)</u> – Construction of an approximately 120,000 SF facility to support full-scale advanced composites component repair and maintenance, rotor blade repair and</li> </ul>	

#### Table 4-1. Present and Reasonably Foreseeable Actions

Action	Timeline	Description	
		<ul> <li>static balancing, and dynamic balance test facility (whirl tower) for main rotor blades.</li> <li><u>F-35 AC Sustainment Center (2024–2026)</u> – Construction of a 248,000 SF, 20-dock, aircraft maintenance facility, including both highbay and dedicated shop spaces for F-35B and F-35C maintenance.</li> <li><u>F-35 Sustainment Center Phase II (2026–2030)</u> – Construction of a 226,000 SF aircraft maintenance facility consisting of high-bay space and dedicated shop spaces to support a minimum of 15 F-35B and F-35C simultaneously.</li> </ul>	
		<ul> <li><u>Avionics/Metrology/Calibration Facility (2027–2032)</u> – Construction of a 50,000 SF maintenance facility to support metrology and calibration workload. Facility would provide a consolidated avionics repair shop and lab testing area, and a state-of-the-art Fleet Metrology and Calibration Center.</li> </ul>	
		<ul> <li><u>Aircraft Preservation Hangar (2027–2032)</u> – Construction of a 22,500 SF, environmentally controlled, storage facility for aircraft waiting for repair and crash-damaged aircraft undergoing investigation. Each aircraft has a 180-day turnaround depot maintenance time (DLA 2022b).</li> </ul>	
		<ul> <li><u>Paint Complex Facility Expansion (2028–2033)</u> – Construction of a 12,500 SF multiuse preparation, paint, and testing facility, including full upgrade and modernization of the current paint facility (Building 245), demolition of the existing hazardous waste storage facility (Building 423), and construction of a new hazardous waste storage facility.</li> </ul>	
		<ul> <li><u>Aircraft Maintenance Storage Facility (2028–2033)</u> – Construction of a 175,000 SF high-bay warehouse with a small administrative support area.</li> </ul>	
		<ul> <li><u>Consolidated Engineering/Logistics Center (2028–2033)</u> – Construction of an approximately 136,100 SF Engineering and Logistics Center with an investigation lab and high-bay aircraft mishap, investigation, and repair area.</li> </ul>	
U.S. 70 Havelock Bypass	2016– 2024	The Record of Decision for the U.S. 70 Havelock Bypass was signed by the Department of Transportation, Federal Highway Administration on December 21, 2016, for the construction of a 10.3-mile, four-lane, divided bypass around the City of Havelock and MCAS Cherry Point to the southwest (FHWA 2016). Construction began in 2019 and is expected to be completed by spring 2024 (NCDOT 2022).	

Action	Timeline	Description
Roadway2017– 2023As part of the F-35B basing at I upgrade, renovate, and modern protection lines, water storage I lines, fuel distribution, and stea ModernizationModernizationInes, fuel distribution, and stea Modernization project also inclu roadway improvements (NECO The USMC prepared an EA in I impacts of making improvement temporary parking areas to ens traffic diverted from 6th Avenue Modernization project with mini parking would be available to o roadway improvements include temporary parking areas. Facili EA concluded minor to negligib construction and positive impact Phase 1 of the project began in December 2021. Phase 2 is ex Cherry Point 2021b).		As part of the F-35B basing at MCAS Cherry Point, the USMC plans to upgrade, renovate, and modernize base utilities. Work will occur on fire protection lines, water storage tanks, potable water lines, communication lines, fuel distribution, and steam distribution. The Flightline Utility Modernization project also includes construction of a fire pump building and roadway improvements (NECO 2019, MCAS Cherry Point 2021b). The USMC prepared an EA in May 2017 to evaluate the environmental impacts of making improvements to 5 <sup>th</sup> Avenue and C Street and creating temporary parking areas to ensure these streets could accept the volume of traffic diverted from 6 <sup>th</sup> Avenue and A Street during the Flightline Utility Modernization project with minimal impact on traffic flow and that adequate parking would be available to offset parking area closures. The proposed roadway improvements include two phases: Phase 1 would establish temporary parking area(s), extend 5 <sup>th</sup> Avenue at the northwestern and southeastern terminus points, and widen C Street; and Phase 2 would establish permanent replacement asphalt parking areas and remove the temporary parking areas. Facility demolition is required in some areas. The EA concluded minor to negligible adverse impacts would occur during construction and positive impacts would occur to traffic and transportation. Phase 1 of the project began in spring 2021 and Phase 2 began in December 2021. Phase 2 is expected to conclude in June 2023 (MCAS Cherry Point 2021b).
Slocum Road Realignment	2023– Future	The USMC plans to widen Slocum Road from two to four lanes, relocate the road to comply with quantity distance criteria, construct an additional bridge over Slocum Creek, and provide improved gate and inspection facilities. The new Entry Control Facility would serve as an additional main gate with a visitor control center, a gate house, inspection canopies, and a vehicle inspection office. The Slocum Gate would be closed at various times throughout construction. During gate closures, traffic would be directed to the Main Gate along Highway 101. Construction is expected to start in 2024 (MCAS Cherry Point 2021c).

Key: JSF – Joint Strike Fighter

## 4.4 Cumulative Impact Analysis

Where feasible, the cumulative impacts were assessed using quantifiable data; however, for many of the resources included for analysis, quantifiable data were not available and a qualitative analysis was undertaken. Where an analysis of potential environmental effects for past, present, and reasonably foreseeable actions had not been completed, assumptions were made regarding cumulative impacts related to this EA where possible. The analytical methodology presented in **Chapter 3**, which was used to determine potential impacts to the various resources analyzed in this document, was also used to determine cumulative impacts. It was determined that no significant cumulative impacts would be expected from the Proposed Action when combined with the past, present, and reasonably foreseeable actions listed in **Table 4-1**.

#### 4.4.1 Water Resources

#### 4.4.1.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts to water resources would be the project area and adjacent surface waters.

#### 4.4.1.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the projects identified in **Table 4-1** would have potential for interaction with water resources, resulting in cumulative impacts.

#### 4.4.1.3 CUMULATIVE IMPACT ANALYSIS

Past, present, and reasonably foreseeable actions in conjunction with the Proposed Action would result in long-term, minor, adverse impacts to water resources. Construction actions introduce the potential for stormwater runoff and erosion that could affect wetlands. Cumulative impacts on wetlands from present and reasonably foreseeable actions would be mitigated according to the measures identified in **Section 3.1**. Therefore, implementation of the Proposed Action, combined with the past, present, and reasonably foreseeable projects, would not result in significant impacts to water resources within the study area.

#### 4.4.2 Biological Resources

#### 4.4.2.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts to biological resources would be the installation, with a focus on the areas proposed for site clearance.

#### 4.4.2.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the projects identified in **Table 4-1** would have potential for interaction with biological resources, resulting in cumulative impacts.

#### 4.4.2.3 CUMULATIVE IMPACT ANALYSIS

Impacts on wildlife and vegetation from past construction activities has already occurred and likely included removal of some areas of natural habitat. Cumulative impacts from the present and reasonably foreseeable actions listed in **Table 4-1** would generate construction noise disturbance to wildlife as well as removal of vegetation and habitat, resulting in short-term, minor, adverse cumulative impacts to biological resources. Impacts on biological resources from implementation of the Proposed Action and past, present, and reasonably foreseeable projects would include habitat removal, disturbance of vegetation, noise disturbance, presence of construction equipment, and development activities. Because changes would be short-term, lasting the duration of construction, and measures would be implemented to restore vegetation to the extent practicable, these impacts would be less than significant. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to biological resources within the study area.

#### 4.4.3 Geological Resources

#### 4.4.3.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts to geological resources would be the project area.

#### 4.4.3.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the projects identified in **Table 4-1** would have potential for interaction with geological resources, resulting in impacts.

#### 4.4.3.3 CUMULATIVE IMPACT ANALYSIS

If construction for any of the present and reasonably foreseeable actions listed in **Table 4-1** were to be implemented concurrently with the Proposed Action, ground disturbance, soil compaction, and erosion associated with construction efforts would result in short-term, minor, adverse cumulative impacts on soils and geology. The potential increase in impervious surfaces and loss of vegetation would contribute to a weaker soil system. Erosion control measures would be used to minimize the potential for erosion to adversely affect adjacent wetland areas and water quality. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to geological resources within the study area.

#### 4.4.4 Utilities and Transportation

#### 4.4.4.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative infrastructure and transportation impacts would be the installation.

#### 4.4.4.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the present and reasonably foreseeable actions described in **Table 4-1** have the potential to cumulatively interact with utility and transportation impacts.

#### 4.4.4.3 CUMULATIVE IMPACT ANALYSIS

Long-term, minor, adverse cumulative transportation impacts would result from past, present, and reasonably foreseeable actions within the study area because many of the actions have included improvements to transportation and congestion within the installation. There is potential for additive traffic levels through Cunningham Gate and on the construction vehicle route from the GPW and FRC East future development in Hancock Village. The FRC East buildout may result in increased traffic using the access route instead of the Main Gate. Long-term traffic at MCAS Cherry Point would not increase under the Proposed Action. During full operation of the Proposed Action, cumulative impacts from increased demand on utilities would be long-term, negligible, and adverse. Therefore, implementation of the Proposed Action, combined with the past, present, and reasonably foreseeable projects, would not result in significant impacts to utilities and transportation within the study area.

#### 4.4.5 Hazardous Materials and Wastes

#### 4.4.5.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts with respect to hazardous materials and wastes would be the installation.

#### 4.4.5.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the present and reasonably foreseeable actions listed in **Table 4-1** would require the use of hazardous materials and generate hazardous waste.

#### 4.4.5.3 CUMULATIVE IMPACT ANALYSIS

Short-term, minor, adverse cumulative impacts would result from implementation of the Proposed Action and other identified past, present, and reasonably foreseeable projects from the use of hazardous materials and generation of hazardous wastes during the proposed construction activities. Long-term, negligible, adverse impacts would occur from the ongoing handling, storage, and use of hazardous materials to support facility operations following construction. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts associated with hazardous materials and wastes within the study area.

#### 4.4.6 Air Quality

#### 4.4.6.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative air quality impacts is the county within which the project would occur: Craven County. Past, present, and reasonably foreseeable actions have the potential to cumulatively increase the criteria air pollutants within the county.

#### 4.4.6.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

A temporal overlap would contribute to air emissions with all the projects described in Table 4-1.

#### 4.4.6.3 CUMULATIVE IMPACT ANALYSIS

The proposed U.S. Highway 70 Bypass project did not include construction of any facilities, nor did the analysis calculate the construction emissions for the highway since the action would occur within an attainment area. The analysis for the bypass focused on the potential for the project to increase Mobile Source Air Toxics from traffic. The analysis did not predict higher levels of Mobile Source Air Toxics since the project would improve the operation of an existing highway, making travel more efficient.

For the Proposed Action, as shown in **Table 3-3**, the air pollutant of greatest concern is particulate matter, mainly as fugitive dust. No long-term increases in fugitive dust would occur, however, and any increases in particulate matter emissions would be moderated through BMPs in accordance with the site-specific erosion and sedimentation control plan. Anticipated emissions from the Proposed Action would not result in a violation of any NAAQS or otherwise result in long-term degradation of local air quality. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to air quality within the study area.

#### 4.4.7 Noise

#### 4.4.7.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative noise impacts would be the project area for the construction of the new GPW.

#### 4.4.7.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

The FRC East improvements described in **Table 4-1** would have construction elements that could cumulatively interact with noise impacts.

#### 4.4.7.3 CUMULATIVE IMPACT ANALYSIS

The FRC East facility improvements would contribute to long-term, minor, adverse impacts to noise due to its proximity to the project area. Adverse impacts would be reduced by revegetation of the project area and installation of facilities upon completion of the construction phase, which would provide partial noise abatement. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to noise within the study area.

#### 4.4.8 Land Use

#### 4.4.8.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts to land use would be the installation.

#### 4.4.8.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the projects described in **Table 4-1** have the potential to cumulatively interact with land use impacts.

#### 4.4.8.3 CUMULATIVE IMPACT ANALYSIS

In conjunction with the Proposed Action, several of the actions listed in **Table 4-1** could result in long-term, minor, adverse cumulative impacts on land use. The F-35B basing action adds facilities, personnel, and other utilities that affect how land on the installation will be used. The FRC East Campus Development is constructing new facilities across that campus to optimize land use and operational efficiency on the installation. All roadway improvement projects would temporarily affect access to various functional land uses. All present and reasonably foreseeable actions are assumed to be consistent with the 2014 *Marine Corps Air Station Cherry Point Master Plan* (MSCA Cherry Point 2014). Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to land use within the study area.

#### 4.4.9 Coastal Zone

#### 4.4.9.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts to the coastal zone would be the installation.

#### 4.4.9.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the projects identified in **Table 4-1** would have potential for interaction with the coastal zone, resulting in impacts.

#### 4.4.9.3 CUMULATIVE IMPACT ANALYSIS

All present and reasonably foreseeable actions within the study area (**Table 4-1**) are assumed to be consistent with the enforceable policies of North Carolina Coastal Management Program. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to the coastal zone within the study area.

#### 4.4.10 Aesthetic and Visual Resources

#### 4.4.10.1 DESCRIPTION OF GEOGRAPHIC STUDY AREA

The study area for cumulative impacts to aesthetic and visual resources would be the project area and off installation viewshed.

#### 4.4.10.2 RELEVANT PRESENT AND REASONABLY FORESEEABLE ACTIONS

All of the present and reasonably foreseeable actions described in **Table 4-1** have the potential to cumulatively interact with the Proposed Action to generate effects on aesthetic and visual resources.

#### 4.4.10.3 CUMULATIVE IMPACT ANALYSIS

New traffic routes could add previously nonexistent visual obstructions to viewsheds. Because the existing viewsheds within these areas consist of military facilities, airfields, and operations, these impacts would be negligible. Under the Proposed Action, long-term, negligible, beneficial impacts would be expected from demolition of the abandoned-in-place foundations and repaved and maintained roadways within the project area, improving the overall aesthetics. The change in viewshed for North Carolina Highway 101 and the City of Havelock, from a forested area to a clear, developed area, would contribute to long-term, minor, adverse impacts on overall aesthetics. Revegetation would minimize permanent visual impacts. Therefore, implementation of the Proposed Action, combined with past, present, and reasonably foreseeable projects, would not result in significant impacts to the aesthetic and visual resources within the study area.

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## 5 Other Considerations Required by NEPA

# 5.1 Consistency with Other Federal, State, and Local Laws, Plans, Policies, and Regulations

In accordance with 40 CFR Section 1502.16(c), analysis of environmental consequences will include discussion of possible conflicts between the Proposed Action and the objectives of federal, regional, state, and local land use plans, policies, and controls. The Proposed Action would occur on government-owned lands. Construction and operation of the GPW would not differ from the current activities occurring on MCAS Cherry Point or conducted by the DLA Depot, and applicable federal, state, and local regulations would continue to be followed. In addition, **Table 5-1** identifies the principal federal and state laws and regulations that are applicable to the Proposed Action and describes briefly how compliance with these laws and regulations would be accomplished.

Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	Status of Compliance	
NEPA; CEQ NEPA implementing regulations; DoN procedures for Implementing NEPA; MCO P5090.2A, Volume 12, <i>Environmental</i> <i>Planning and Review</i>	Completion of EA will document compliance	
Clean Air Act	Completion of EA will document compliance	
CWA	Approval of Section 404/401 permit will document compliance	
CZMA	Concurrence with Coastal Consistency Determination will document compliance	
NHPA	Completion of EA will document compliance	
ESA	Completion of EA will document compliance	
BGEPA	Completion of EA will document compliance	
CERCLA	Completion of EA will document compliance	
Emergency Planning and Community Right-to- Know Act	Completion of EA will document compliance	
Federal Insecticide, Fungicide, and Rodenticide Act	Completion of EA will document compliance	
Resource Conservation and Recovery Act	Completion of EA will document compliance	
Toxic Substances Control Act	Completion of EA will document compliance	
Invasive Species Act	Completion of EA will document compliance	
Noxious Weed Act	Completion of EA will document compliance	
EO 11988, Floodplain Management	Completion of EA will document compliance	
EO 12088, Federal Compliance with Pollution Control Standards	The Proposed Action would comply with this order	

Table 5-1.	Principal Federal and	State Laws Applicable to	o the Proposed Action
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Federal, State, Local, and Regional Land Use Plans, Policies, and Controls	Status of Compliance
EO 13045, Protection of Children from Environmental Health Risks and Safety Risks	Completion of EA will document compliance
EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations	Completion of EA will document compliance

### 5.2 Irreversible or Irretrievable Commitments of Resources

Irreversible and irretrievable resource commitments are related to the permanent use of nonrenewable resources, such as metal and fuel as well as natural or cultural resources. Irreversible impacts primarily result from the use or destruction of a specific resource that cannot be replaced within a reasonable timeframe. These resources are irretrievable in that they would be used for this project when they could have been used for other purposes. Another impact that falls under this category is the unavoidable destruction of natural resources that could limit the range of potential uses of that particular environment. Irreversible and irretrievable commitments of resources generally result from implementation of actions that involve the consumption of material resources used for construction, energy resources, and human labor. The use of these resources is considered to be permanent.

The Proposed Action would involve use of physical material for construction; the consumption of fuel, oil, and lubricants for construction vehicles; loss of natural resources (i.e., removal of vegetation within the project area); and human labor. Material resources used for the Proposed Action would include construction materials and supplies, which are not in short supply and would not limit other unrelated construction activities. Energy resources used for the Proposed Action, including petroleum-based products, would be irretrievably lost but would not place a significant demand on their availability within the region. A minor loss of biological resources from removal of vegetation under the Proposed Action would occur. Such vegetation was not identified as wetlands or habitat for threatened or endangered species. Temporarily disturbed areas would be revegetated following completion of construction. The use of human labor for construction and demolition is considered irretrievable, as it would preclude such personnel from engaging in other work; however, the use of human labor would contribute to employment opportunities and is considered beneficial. Therefore, the Proposed Action would not result in significant irreversible or irretrievable commitments of resources.

## 5.3 Unavoidable Adverse Impacts

This EA has determined that the Proposed Action would not result in significant impacts. The Proposed Action would require continued use of fossil fuels, a nonrenewable natural resource, during construction and operation of the GPW. As such, energy supplies, although relatively small, would be committed to the Proposed Action. The use of nonrenewable resources is an unavoidable occurrence, although not considered significant. Ground disturbing activities would result in the permanent loss of wildlife and habitat within the GPW footprint. These losses would be unavoidable; however, temporarily disturbed areas would be revegetated following
completion of construction. The use and generation of hazardous materials and wastes during construction and demolition would be unavoidable; however, the hazardous materials and wastes would be handled in accordance with federal, state, and local policies and would not be expected to result in significant impacts.

## 5.4 Relationship Between Short-Term Use of the Environment and Long-Term Productivity

NEPA requires an analysis of the relationship between a project's use of the environment and the effects that such use may have on the maintenance and enhancement of the long-term productivity of the affected environment. These include short- and long-term uses of the biophysical components of the human environment and uses that narrow the range of beneficial uses of the environment.

The Proposed Action would not require short-term resource uses that would result in long-term compromises of productivity. Although construction of the GPW would result in an increase of impervious surface, it would not result in intensification of land use at MCAS Cherry Point or within the surrounding area because construction would occur within a previously disturbed area. Construction and operation of the GPW also would not significantly impact the long-term natural resource productivity of the area. As a result, it is not anticipated that the Proposed Action would result in any environmental impacts that would permanently narrow the range of beneficial uses of the environment or pose long-term risks to health, safety, or general welfare of the public. The long-term, beneficial impacts of the Proposed Action from increasing the bulk storage capacity at the DLA Depot would support the ongoing and future mission of DLA Distribution.

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Agency Correspondence



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## A.1 U.S. Fish and Wildlife Service Coordination

November 30, 2023

Mr. Pete Benjamin U.S. Fish and Wildlife Service Raleigh Ecological Services Field Office 551 Pylon Drive Suite F Raleigh, NC 27606

RE: Threatened and Endangered Species Survey Construction and Operation of a General Purpose Warehouse at MCAS Cherry Point Craven County, NC

Dear Mr. Benjamin,

Defense Logistics Agency (DLA) has retained HDR Engineering (HDR) to prepare an Environmental Assessment, in accordance with the National Environmental Policy Act (NEPA), for the proposed General Purpose Warehouse (GPW) at Marine Corps Air Station (MCAS) Cherry Point in Craven County, North Carolina (Figures 1, 2). DLA proposes to construct and operate a permanent GPW for the storage of bulk materiel and a material handling equipment (MHE) maintenance facility at MCAS Cherry Point for use by DLA Distribution Cherry Point (DLA Depot). HDR has completed a threatened and endangered species survey for the construction and operation activities associated with the proposed project as regulated under Sections 7 and 9 of the Endangered Species Act of 1973, as amended. The purpose of this letter is to report the biological evaluation for federally protected species listed within the study area.

Construction of the GPW and MHE maintenance facility would include clearing 33.3 acres of vegetation (Subset of vegetation: future forest removal of 3.9 acres following recent merchantable timber removal); removing existing fencing; and demolishing abandoned stormwater infrastructure, sewer lines, structural foundations, and roadways associated with the former Hancock Village housing area. The 371,689 square-foot (SF) GPW would include three bays of general warehouse space, a controlled humidity warehouse annex, and an administrative/utility annex. The 9,347 SF MHE maintenance facility would include four maintenance bays, repair shops, storage, covered outdoor work areas, and external propane storage. Portions of existing access roadways (i.e., Marylou and Sheep Roads) would be repaved. Sheep Road would be extended to provide access to the new GPW and MHE maintenance facility. Construction would result in a net increase of 15.7 acres of impervious surfaces at MCAS Cherry Point. Construction will commence in May 2027 and will end December 2029.

An IPaC resource list (October 23, 2023) was pulled from the federal ECOS IPaC for the study area. The enclosed species conclusion table represents federally listed species within the study area and rendered biological conclusions for each species.

According to the USFWS IPaC official species list, ten federally listed species occurring in Craven County have the potential to occur in the study area. The NC Natural Heritage Program (NCNHP) documented three of these federally listed species within one mile of the project: American alligator (*Alligator mississippiensis*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) and shortnose sturgeon (*Acipenser brevirostrum*). However, no federally listed species have been documented within the study area.

Sea turtles have shared jurisdiction between NOAA-NMFS and USFWS, where NOAA-NMFS leads the conservation and recovery of sea turtles in the marine environment and the USFWS has the lead for the conservation and recovery of turtles on nesting beaches. Therefore, for the purposes of this letter, the biological conclusion is made based on USFWS jurisdiction of sea turtles on nesting beaches in which case, there is no habitat for nesting sea turtles within the study area.

On August 10th and 11th, 2022, a threatened and endangered species reconnaissance survey was carried out within the study area to identify suitable habitat and possible individuals of these protected species. No suitable habitat was identified in the study area for shortnose sturgeon (NOAA jurisdiction), Atlantic sturgeon (NOAA jurisdiction), eastern back rail (*Laterallus jamaicensis ssp. jamaicensis*), rufa red knot (*Calidris canutus rufa*), green sea turtle (*Chelonia mydas*) (NOAA/USFWS shared jurisdiction), and leatherback sea turtle (*Dermochelys coriacea*) (NOAA/USFWS shared jurisdiction). Therefore, the project is expected to have "No Effect" and these species are not discussed further.

Suitable forested habitat for northern long-eared bat (Myotis septentrionalis) and tricolored bat (*Perimyotis subflavus*) was identified mainly along the stormwater pond, existing fence line that runs north to south just west of the stormwater pond and a scattering of trees remaining following timber removal in late 2022 and early 2023. These trees consist of hardwoods and pine tree species that include sweetgum (Liquidambar styraciflua), red maple (Acer rubrum), red bay (Persea borbonia) and loblolly pine (Pinus taeda). The current total forested area within the study area, following merchantable timber removal, is 3.9 acres. These scattered forested areas and edges would be removed outside the northern long-eared bat pup season (June 1 to July 31st). The project would follow any additional guidelines established by USFWS that are forthcoming, and a project review would occur during the permitting process. Currently most of the study is represented by herbaceous/shrub/scrub vegetation created post merchantable timber harvest. As part of the mitigation strategy for the proposed project, a 35-acre area recently cleared for merchantable timber and situated approximately 1,000 feet east of the study area will be replanted with loblolly pine. According to the 2018 Northern Long-Eared Bat Survey Report for MCAS Cherry Point, during acoustic surveys conducted in the northern part of the installation, the tricolored bat was the most common bat species recorded with six individuals being captured in mist-net surveys and no northern long-eared bats were detected or captured. No surveys were conducted in the study area which is located in the southern portion of the installation. Due to these findings, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached

for these two bat species. The northern long-eared bat concurrence letter (generated November 5, 2023) is attached. Cumulative and indirect impacts to northern long-eared bat and tricolored bat within the proposed study area are anticipated to be minimal due to the limited forested habitat currently on the study area, the reforestation mitigation project, and the adjacent forested habitat that exists surrounding the study area that is available habitat to the two bat species.

Suitable habitat for bald eagle (*Haliaeetus leucocephalus*) was identified in the study area in and around the stormwater pond, however the project is expected to have "No Effect" on this species as no bald eagles or active nests were observed during the field reconnaissance survey. Although bald eagles may hunt or scavenge within the study area, based on the limited availability of suitable habitat in the study area, bald eagle nesting is unlikely. Monitoring for new, active nests within 660 feet of the study area is recommended throughout the duration of construction to stay in compliance with the Bald and Golden Eagle Protection Act of no disturbance to the species.

Limited suitable habitat for the red cockaded woodpecker (*Picoides borealis*) currently exists in the form of limited pine trees along the stormwater pond in the study area and in the adjacent semi-open understory pine forested stands. A few large longleaf pine (*Pinus palustris*) and loblolly pine trees were noted on the western side of the study area for nesting habitat, but no roost starts or individuals were seen during the field visit. These trees have since been removed from the study area during a couple timber harvests in late 2022 and early 2023. Foraging habitat is located on the eastern side of the study area surrounding the stormwater pond where limited pine trees remain. Due to these findings, a biological conclusion of "No Effect" on the red-cockaded woodpecker has been reached because habitat is highly limited on the study area, no individuals or signs were noted during the field visit and there are no known populations within a mile.

Limited suitable habitat for rough-leaved loosestrife (*Lysimachia asperulaefolia*) was identified in the form of grass-shrub ecotone edges along dirt path edges and wetland clearcut edges. The optimal survey window for rough-leaved loosestrife is mid-May through September in which habitat assessments and presence/absence surveys were performed. No individuals were noted within the study area and no occurrences are documented within one mile of the study area. Due to these findings, a biological conclusion of "No Effect" was reached for this species.

Limited suitable habitat for the monarch butterfly (*Danaus plexippus*) was identified in the form of herbaceous areas (cut over areas and disturbed unmaintained area) with noted milkweed species (*Asclepias* spp.) scattered throughout the study area. Due to these findings, a biological conclusion of "No Effect" was reached for this species.

If you have any questions or concerns, please call or email me at your earliest convenience at 919-232-6654 or <u>Jessica.tisdale@hdrinc.com</u>.

Sincerely,

Jean J. Vishel

Attachments:

Figure 1 – Project Vicinity Map Figure 2 – Project Study Area USFWS Self-certification Package USFWS Species Conclusion Table (dated November 1, 2023) USFWS ECOS IPaC Report (dated October 23, 2023) USFWS NLAA Northern long-eared bat concurrence letter (dated. November 16, 2023) NC Natural Heritage Program Element Occurrence Report (dated October 23, 2023)



Figure 1. Project Vicinity Map



### Species Conclusions Table

### Project Name: Construction and Operation of a General Purpose Warehouse – DLA and U.S. Marine Corps

### Date: November 1, 2023

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Northern Long-eared Bat Myotis septentrionalis	Limited suitable habitat for roosting in trees.	May affect, not likely to adversely affect (MANLAA)	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023. Most forested areas have already been removed and approximately 3.9 acres of forested acres remain.
Tricolored Bat <i>Perimyotis subflavus</i>	Limited suitable habitat for roosting in trees.	May affect, not likely to adversely affect (MANLAA)	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023.
Bald Eagle Haliaeetus Ieucocephalus	Limited suitable foraging and nesting habitat in and around the onsite stormwater pond.	No effect	No Eagle Act Permit Required, no nests in or within 660' of the study area per field visit confirmation, 08/10- 08/11/2022, 08/08/2023
Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis	No suitable foraging or nesting habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023.
Red Knot Calidris canutus rufa	No suitable foraging or nesting habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023.
Red-cockaded Woodpecker <i>Picoides borealis</i>	Suitable nesting and foraging habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023. No individuals noted in existing large pine trees or in open foraging areas. In addition no occurrences noted in one- mile on the NCNHP report.
American Alligator Alligator mississippiensis	Suitable habitat in and adjacent to the stormwater pond.	N/A	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023. No individuals seen.
Green Sea Turtle <i>Chelonia mydas</i>	No suitable nesting habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023.
Leatherback Sea Turtle Dermochelys coriacea	No suitable nesting habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023.

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Rough-leaved Loosestrife <i>Lysimachia</i> asperulaefolia	Limited suitable habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022 (species survey completed), 08/08/2023.
Monarch butterfly ( <i>Danaus plexippus</i> )	Limited foraging habitat.	No effect	Field visit confirmation, 08/10- 08/11/2022, 08/08/2023. Limited <i>Asclepias</i> spp. plants noted on the study area.
Critical habitat	No USFWS critical habitat present for any species.	No effect	USFWS critical habitat mapper

Acknowledgement: I agree that the above information about my proposed project is true. I used all the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Jean J. Vishel

Jessica Tisdale, Sr. Environmental Scientist

11/01/2023

Date

Signature /Title



## United States Department of the Interior

FISH AND WILDLIFE SERVICE Raleigh Ecological Services Field Office Post Office Box 33726 Raleigh, NC 27636-3726 Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To: October 23, 2023 Project Code: 2024-0007735 Project Name: Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). If your project area contains suitable habitat for any of the federally-listed species on this species list, the proposed action has the potential to adversely affect those species. If suitable habitat is present, surveys should be conducted to determine the species' presence or absence within the project area. The use of this species list and/or North Carolina Natural Heritage program data should not be substituted for actual field surveys.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/whatwe-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

# **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

### **Raleigh Ecological Services Field Office**

Post Office Box 33726 Raleigh, NC 27636-3726 (919) 856-4520

### **PROJECT SUMMARY**

Project Code:	2024-0007735						
Project Name:	Construction and Operation of a General Purpose Warehouse at Defense						
	Logistics Agency Distribution						
Project Type:	Military Development						
Project Description:	Defense Logistics Agency (DLA) proposes to construct and operate a						
	permanent General Purpose Warehouse (GPW) for the storage of bulk						
	materiel and a material handling equipment (MHE) maintenance facility						
	at Marine Corps Air Station (MCAS) Cherry Point in Craven County,						
	North Carolina, for use by DLA Distribution Cherry Point (DLA Depot).						
	Construction of the GPW and MHE maintenance facility would include						
	clearing 33.3 acres of vegetation; removing existing fencing; and						
	demolishing abandoned stormwater lines, sewer lines, structural						
	foundations, and roadways associated with the former Hancock Village						
	housing area. The 371,689 square-foot (SF) GPW would include three						
	bays of general warehouse space, a controlled humidity warehouse annex,						
	and an administrative/utility annex. The 9,347 SF MHE maintenance						
	facility would include four maintenance bays, repair shops, storage,						
	covered outdoor work areas, and external propane storage. Portions of						
	existing access roadways (i.e., Marylou and Sheep Roads) would be						
	repaved. Sheep Road would be extended to provide access to the new						
	GPW and MHE maintenance facility. Construction would result in a net						
	increase of 15.7 acres of impervious surfaces at MCAS Cherry Point.						

### Project Location:

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@34.884440350000006,-76.8822805034039,14z</u>



Counties: Craven County, North Carolina

### **ENDANGERED SPECIES ACT SPECIES**

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/10515</u>	Proposed Endangered
BIRDS	
NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/10477</u>	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/7614</u>	Endangered
Rufa Red Knot <i>Calidris canutus rufa</i> There is <b>proposed</b> critical habitat for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>	Threatened

### REPTILES

NAME	STATUS
American Alligator <i>Alligator mississippiensis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/776</u>	Similarity of Appearance (Threatened)
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6199</u>	Threatened
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/1493</u>	Endangered
INSECTS NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species.	Candidate

### FLOWERING PLANTS

Species profile: https://ecos.fws.gov/ecp/species/9743

NAME	STATUS
Rough-leaved Loosestrife Lysimachia asperulaefolia	Endangered
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/2747</u>	

### **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

# **BALD & GOLDEN EAGLES**

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

- 1. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 2. The Migratory Birds Treaty Act of 1918.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

### There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus	Breeds Sep 1 to
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention	Jul 31
because of the Eagle Act or for potential susceptibilities in offshore areas from certain	
types of development or activities.	
https://ecos.fws.gov/ecp/species/1626	

## **PROBABILITY OF PRESENCE SUMMARY**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

#### **Probability of Presence** (

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

#### Breeding Season (=)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

#### Survey Effort ()

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (-)

A week is marked as having no data if there were no survey events for that week.

				prob	ability of	f presenc	e 📕 br	eeding s	eason	survey	effort ·	– no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable	• • • •	• • • •	• • • •		+-+ · -+							

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/</u> <u>collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/</u> <u>documents/nationwide-standard-conservation-measures.pdf</u>
- Supplemental Information for Migratory Birds and Eagles in IPaC <u>https://www.fws.gov/</u> media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occurproject-action

## **MIGRATORY BIRDS**

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

- 1. The <u>Migratory Birds Treaty Act</u> of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/9587</u>	Breeds Apr 1 to Aug 31
Bachman's Sparrow Aimophila aestivalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6177	Breeds May 1 to Sep 30
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <u>https://ecos.fws.gov/ecp/species/1626</u>	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/9427</u>	Breeds Mar 1 to Jul 15
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9439</u>	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9398</u>	Breeds May 10 to Sep 10

## **PROBABILITY OF PRESENCE SUMMARY**

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### **Probability of Presence** (**■**)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

#### Breeding Season (=)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort ()

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

#### No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/</u> <u>collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>
- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/</u> <u>documents/nationwide-standard-conservation-measures.pdf</u>
- Supplemental Information for Migratory Birds and Eagles in IPaC <u>https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action</u>

## **IPAC USER CONTACT INFORMATION**

Private Entity
Jessica Tisdale
HDR Engineering of the Carolinas, 555 Fayetteville Street
Suite 900
Raleigh
NC
27601
jessica.tisdale@hdrinc.com
9192326654

## LEAD AGENCY CONTACT INFORMATION

- Lead Agency: Defense Logistics Agency
- Name: Jessica Guilianelli
- Email: jessica.guilianelli@usmc.mil
- Phone: 2524664826



## United States Department of the Interior

FISH AND WILDLIFE SERVICE Raleigh Ecological Services Field Office Post Office Box 33726 Raleigh, NC 27636-3726 Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To: November 16, 2023 Project code: 2024-0007735 Project Name: Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution

Federal Nexus: yes Federal Action Agency (if applicable): Department of Defense

**Subject:** Federal agency coordination under the Endangered Species Act, Section 7 for 'Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution'

Dear Jessica Guilianelli:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on November 16, 2023, for 'Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution' (here forward, Project). This project has been assigned Project Code 2024-0007735 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.** 

### **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (DKey), invalidates this letter. *Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.* 

### **Determination for the Northern Long-Eared Bat**

Based upon your IPaC submission and a standing analysis completed by the Service, your project has reached the determination of "May Affect, Not Likely to Adversely Affect" the northern

long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is <u>complete</u> and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat that was not considered when completing the determination key.

### **15-Day Review Period**

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a "may affect, not likely to adversely affect" (NLAA) determination for the northern long-eared bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat DKey.

### Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Alligator *Alligator mississippiensis* Similarity of Appearance (Threatened)
- Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis Threatened
- Green Sea Turtle *Chelonia mydas* Threatened
- Leatherback Sea Turtle *Dermochelys coriacea* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Red-cockaded Woodpecker *Picoides borealis* Endangered
- Rough-leaved Loosestrife Lysimachia asperulaefolia Endangered
- Rufa Red Knot Calidris canutus rufa Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the species and/ or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the Raleigh Ecological Services Field Office and reference Project Code 2024-0007735 associated with this Project.

### **Action Description**

You provided to IPaC the following name and description for the subject Action.

### 1. Name

Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution

### 2. Description

The following description was provided for the project 'Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution':

Defense Logistics Agency (DLA) proposes to construct and operate a permanent General Purpose Warehouse (GPW) for the storage of bulk material and a material handling equipment (MHE) maintenance facility at Marine Corps Air Station (MCAS) Cherry Point in Craven County, North Carolina, for use by DLA Distribution Cherry Point (DLA Depot). Construction of the GPW and MHE maintenance facility would include clearing 33.3 acres of vegetation; removing existing fencing; and demolishing abandoned stormwater lines, sewer lines, structural foundations, and roadways associated with the former Hancock Village housing area. The 371,689 square-foot (SF) GPW would include three bays of general warehouse space, a controlled humidity warehouse annex, and an administrative/utility annex. The 9,347 SF MHE maintenance facility would include four maintenance bays, repair shops, storage, covered outdoor work areas, and external propane storage. Portions of existing access roadways (i.e., Marylou and Sheep Roads) would be repaved. Sheep Road would be extended to provide access to the new GPW and MHE maintenance facility. Construction would result in a net increase of 15.7 acres of impervious surfaces at MCAS Cherry Point.

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@34.88456445,-76.88227729033513,14z</u>



# **DETERMINATION KEY RESULT**

Based on the answers provided, the proposed Action is consistent with a determination of "may affect, but not likely to adversely affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

### **QUALIFICATION INTERVIEW**

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Your project overlaps with an area where northern long-eared bats may be present yearround. Time-of-year restrictions may not be appropriate for your project due to bats being active all year.

Do you understand that your project may impact bats at any time during the year and timeof-year restrictions may not apply to your project?

Yes

3. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

4. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)? *No*
10. Have you determined that your proposed action will have no effect on the northern longeared bat? Remember to consider the <u>effects of any activities</u> that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer "No" below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project's action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a "no effect" determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer "No" and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of <u>Effects of the Action</u> can be found here: <u>https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</u>

No

11. Your project overlaps with an area where northern long-eared bats may be present year-round.

Is suitable northern long-eared bat habitat present within 1000 feet of project activities? *Yes* 

12. Will the action cause effects to a bridge?

No

13. Will the action result in effects to a culvert or tunnel?

No

14. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

- 15. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) known or suspected to contain roosting bats?*No*
- 16. Will the action directly or indirectly cause construction of one or more new roads that are open to the public?

**Note:** The answer may be yes when a publicly accessible road either (1) is constructed as part of the proposed action or (2) would not occur but for the proposed action (i.e., the road construction is facilitated by the proposed action but is not an explicit component of the project).

No

17. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

- 19. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?*No*
- 20. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

21. Will the action include drilling or blasting?

No

- 22. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)? *No*
- 23. Will the proposed action involve the use of herbicides or pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

24. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat can be found at: <a href="https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions">https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</a> *No* 

25. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

**Note:** Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions *Yes* 

26. Will the action use only downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting) when installing new or replacing existing permanent lights? Or for those transportation agencies using the Backlight, Uplight, Glare (BUG) system developed by the Illuminating Engineering Society, will all three ratings (backlight, uplight, and glare) be as close to zero as is possible, with a priority of "uplight" of 0?

No

27. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq$ 3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

Yes

### **PROJECT QUESTIONNAIRE**

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

3.9

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>inactive</u> (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <u>https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</u>

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>active</u> (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <u>https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</u>

3.9

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq$ 3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

3.9

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees)  $\geq$ 3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities by completed by April 1, 2024?

No

### **IPAC USER CONTACT INFORMATION**

Agency:	Department of Defense
Name:	Jessica Guilianelli
Address:	PSC 8006
Address Line 2:	Bldg 4223 Access Road
City:	Cherry Point
State:	NC
Zip:	28533
Email	jessica.guilianelli@usmc.mil
Phone:	2524664826



D. Reid Wilson, Secretary

Misty Buchanan Deputy Director, Natural Heritage Program

NCNHDE-23724

October 23, 2023

Jessica Tisdale HDR 555 Fayetteville Street Raleigh, NC 27601 RE: DLA General Purpose Warehouse

Dear Jessica Tisdale:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

A query of the NCNHP database indicates that there are records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. These results are presented in the attached 'Documented Occurrences' tables and map.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is documented within the project area or indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: <a href="https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37">https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37</a>.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

Also please note that the NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or an occurrence of a Federally-listed species is documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact the NCNHP at <u>natural.heritage@dncr.nc.gov</u>.

Sincerely, NC Natural Heritage Program

#### Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Intersecting the Project Area DLA General Purpose Warehouse October 23, 2023 NCNHDE-23724

Element Occurrences Documented Within Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Reptile	14758	Sistrurus miliarius miliarius	Carolina Pigmy Rattlesnake	1988-1989	Н	3-Medium		Special Concern	G5T4T 5	S2

No Natural Areas are Documented within the Project Area

Managed Areas Documented Within Project Area\*

Managed Area Name	Owner	Owner Type
Marine Corps Air Station Cherry Point - Main Air	US Department of Defense	Federal
Station		

\*NOTE: If the proposed project intersects with a conservation/managed area, please contact the landowner directly for additional information. If the project intersects with a Dedicated Nature Preserve (DNP), Registered Natural Heritage Area (RHA), or Federally-listed species, NCNHP staff may provide additional correspondence regarding the project.

Definitions and an explanation of status designations and codes can be found at <u>https://ncnhde.natureserve.org/help</u>. Data query generated on October 23, 2023; source: NCNHP, Summer (July) 2023. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

#### Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area DLA General Purpose Warehouse October 23, 2023 NCNHDE-23724

Element Occurrences	Documented	Within a	One-mile R	adius of th	he Project Area
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Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation	Element Occurrence	Accuracy	Federal Status	State Status	Global Rank	State Rank
				Date	Rank					
Amphibian	35949	Anaxyrus quercicus	Oak Toad	1923-05-15	Х	5-Very Low		Significantly Rare	G5	S2
Dragonfly or Damselfly	38998	Coryphaeschna ingens	s Regal Darner	2004-Pre	H?	5-Very Low		Significantly Rare	G5	S2?
Dragonfly or Damselfly	33788	Triacanthagyna trifida	Phantom Darner	2004-Pre	H?	5-Very Low		Significantly Rare	G5	SH
Freshwater Fisl	n24083	Acipenser brevirostrum	Shortnose Sturgeon	1980-Pre	Н	5-Very Low	Endangered	Endangered	G3	S1
Freshwater Fisl	n38942	Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	2018-04-17	E	4-Low	Endangered	Endangered	G3T3	S2
Reptile	9438	Alligator mississippiensis	American Alligator	2022-04-20	E	4-Low	Threatened Similar Appearance	Threatened	G5	S3
Reptile	36450	Coluber flagellum flagellum	Eastern Coachwhip	1910-06-01	Н	4-Low		Special Concern	G5T5	S2
Reptile	33422	Crotalus adamanteus	Eastern Diamondback Rattlesnake	1927-07-20	Н	4-Low		Endangered	G3	S1
Reptile	2104	Heterodon simus	Southern Hognose Snake	1944-Pre	Н	4-Low		Threatened	G2	S1S2
Reptile	14758	Sistrurus miliarius miliarius	Carolina Pigmy Rattlesnake	1988-1989	Н	3-Medium		Special Concern	G5T4T 5	S2
Vascular Plant	8938	Peltandra sagittifolia	Spoonflower	1956-09-01	Η	3-Medium		Significantly Rare Peripheral	G3G4	S2S3
Vascular Plant	10525	Solidago verna	Spring-flowering Goldenrod	2000-06-26	В	3-Medium		Threatened	G3	S3

No Natural Areas are Documented Within a One-mile Radius of the Project Area

Managed Areas Documented V	Within a One-mile Radius of the Project Area
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Managed Area Name	Owner	Owner Type
City of Havelock - Havelock Recreation Complex	City of Havelock	Local Government
City of Havelock Open Space	City of Havelock	Local Government
City of Havelock Open Space	City of Havelock	Local Government
Croatan National Forest	US Forest Service	Federal
Marine Corps Air Station Cherry Point - Main Air	US Department of Defense	Federal
Station		

Definitions and an explanation of status designations and codes can be found at <u>https://ncnhde.natureserve.org/help</u>. Data query generated on October 23, 2023; source: NCNHP, Summer (July) 2023. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.



NCNHDE-23724: DLA General Purpose Warehouse



### United States Department of the Interior

FISH AND WILDLIFE SERVICE Raleigh ES Field Office Post Office Box 33726 Raleigh, North Carolina 27636-3726

June 21, 2024

Ms. Jessica Tisdale HDR Engineering, Inc. 555 Fayetteville Street Raleigh, NC 27601

Dear Ms. Tisdale:

The Fish and Wildlife Service (Service) has reviewed your November 30, 2023, letter and enclosures regarding the proposed construction and operation of a General-Purpose Warehouse (GPW) and Material Handling Equipment (MHE) maintenance facility at Marine Corps Air Station (MCAS) Cherry Point. The 371,679 square foot (ft<sup>2</sup>) GPW and 9,347 ft<sup>2</sup> MHE will be built on the southern edge of the installation east of Sheep Road and north of North Carolina Highway 101 in Craven County, North Carolina. Your November 30, 2023, letter summarizes results of threatened and endangered species surveys conducted by HDR, Engineering, Inc. (HDR) in the project site. Our comments are provided in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 USC 1531 et seq.).

Construction of the GPW and MHE will involve clearing of about 33.3 acres of vegetation, including removal of 3.9 acres of forested land. The project will require removal of existing fencing, demolition of abandoned stormwater infrastructure, sewer lines, structural foundations and roadways that were part of the former Hancock Village housing area. The GPW would include three general warehouse bays, a controlled humidity warehouse annex, and an administrative/utility annex. The MHE maintenance facility would include four maintenance bays, repair shops, storage, covered outdoor work areas, and external propane storage. Portions of existing access roadways (i.e., Marylou and Sheep Roads) would be repaved. Sheep Road would be extended to provide access to the new GPW and MHE maintenance facility. Construction would result in a net increase of 15.7 acres of impervious surfaces at MCAS Cherry Point. Construction will begin in May 2027 and will end December 2029.

HDR conducted surveys for threatened and endangered species and associated suitable/potentially habitat in the project study area on August 10 and 11, 2022. No suitable habitat was identified for shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus*) (both species of National Oceanic and Atmospheric Administration [NOAA] jurisdiction), eastern back rail (*Laterallus jamaicensis* ssp. *jamaicensis*), rufa red knot (*Calidris canutus rufa*), or sea turtle species (NOAA/Fish and Wildlife Service shared jurisdiction). HDR determined the proposed action will have no effect on these species.

A few acres of suitable forested habitat for the federally endangered northern long-eared bat (*Myotis septentrionalis*; NLEB) and tricolored bat (*Perimyotis subflavus*; TCB) (proposed for federal listing under the Act) were identified in the study area. This habitat exists mainly along the stormwater pond, existing fence line just west of the stormwater pond and a few trees scattered within the study area that remained after timber removal that took place in late 2022 and early 2023.

HDR determined there was limited suitable/potentially suitable habitat for the red-cockaded woodpecker (*Picoides* [=*Dryobates*] *borealis*) within the study area and adjacent pine stands. No red-cockaded woodpeckers, cavity or cavity starts were found during the 2022 surveys. While some potentially suitable foraging habitat remains on the east side of the study area, the sparsity and patchy distribution of pine trees within the study area diminish the significance of the site for red-cockaded woodpecker conservation. HDR determined that the proposed action would have no effect on the red-cockaded woodpecker.

Limited suitable habitat for the federally endangered perennial plant, rough-leaved loosestrife (*Lysimachia asperulaefolia*) was found in grass-shrub ecotones within the study area. No element occurrences of rough-leaved loosestrife were detected during surveys for individual plants, which were conducted within the mid-May through September survey window. HDR concluded that the proposed action will have no effect on the rough-leaved loosestrife.

On June 12, 2024, you and Mr. John Hammond of the Raleigh Ecological Services Field Office had a phone conversation regarding regulatory review and listing status of NLEB and TCB in relation to the project study area. The Service has been working internally to synthesize data on bat distribution and develop determination keys and other tools for enabling conservation partners and action proponents carry out their projects while minimizing or avoiding impacts to federally protected bats. Based on a review of a recent update to the NLEB determination key (May 15, 2024), we concur with your determination that the proposed GPW and MHE maintenance facility construction and operation may affect but are not likely to adversely affect the NLEB.

The proposed project was also evaluated using a newly developed joint NLEB and TCB determination key (June 13, 2024). The results of this evaluation determined that the project may affect TCB. Since direct impacts to forested habitat are relatively limited (about 3.9 acres), we believe the proposed project is not likely to jeopardize the continued existence of the TCB. Please note that if the species is listed and any needed tree removal has not yet occurred, you should contact us for further guidance. At this time, we do not have information regarding the potential listing or what measures to minimize impacts may be recommended.

Your November 30, 2023, letter refers to the 2018 Northern Long-eared Bat Survey Report for MCAS Cherry Point (2018 NLEB Report), which included acoustic surveys. According to your letter, six individual TCBs were captured on the installation as documented in this report. TCB was also the most common bat species recognized in the northern part of MCAS Cherry Point. The report showed that no NLEB were captured or detected during the survey.

MCAS Cherry Point falls within the year-round active range for both NLEB and TCB. Forested habitat on MCAS Cherry Point is considered an important part of the conservation landscape for protected bats species, along with the Croatan National Forest and other adjacent/ nearby properties. New element occurrences documented in the 2018 NLEB Report, as well as survey effort with no detections are important in understanding distribution and habitat use of NLEB and TCB. These data may contribute significantly to enabling the Service and our partners to rely on the best available scientific information available to support species impact determinations and to coordinate recovery efforts for listed species. Therefore, we recommend that MCAS Cherry Point share the 2018 NLEB Report with the North Carolina Natural Heritage Program so that the State's database is kept up to date.

Based on the information provided in your November 30, 2023, letter and attachments, your June 12, 2024, phone conversation with Raleigh Ecological Services staff and other information available to the Service, we concur with your determination that the proposed construction and operation of a General-Purpose Warehouse and Material Handling Equipment maintenance facility at Marine Corps Air Station Cherry Point, Craven County, North Carolina may affect but is not likely to adversely affect the federally endangered northern long-eared bat. We believe the proposed action will not jeopardize the continued existence of the tricolored bat and will have no effect on the red-cockaded woodpecker, West Indian manatee, Eastern black rail, rufa red knot, piping plover, sea turtles, rough-leaved loosestrife, or any other federally listed species or species proposed for listing under the Act. We believe that the requirements of section 7(a)(2) of the Act have been satisfied.

We remind you that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

If you have any questions regarding this matter, please contact Mr. John Hammond at 984-308-0813. Thank you for your continued cooperation with our agency.

Sincerely,

for Pete Benjamin Field Supervisor

### IPaC

#### U.S. Fish & Wildlife Service

# **Endangered Species Act Review**

DETERMINATION KEY

# Northern Long-eared Bat Rangewide Determination Key

Release date: May 15, 2024

You have not fully completed this determination key.

This <u>key</u> is intended to streamline review of projects for potential effects to the northern long-eared bat (*Myotis septentrionalis*). This key is designed as a tool to help Federal agencies and other project proponents decide if their proposed action has the potential to adversely affect the northern long-eared bat and covers certain routine and predictable projects for which predetermined consultation outcomes are feasible.

Some projects may be outside the scope of this key. Projects not eligible for pre-determined outcomes will be diverted for field office coordination. Activities that fall outside the scope of this key will require additional evaluation and/or consultation outside of the IPaC application; please contact the appropriate Ecological Service Field Office if you have questions.

If your project qualifies for use of this determination key (key), you will be prompted to answer questions about your project to help you evaluate its effects on the northern longeared bat. Three outcomes are possible:

1) If your completed review indicates a "No Effect" (NE) for northern long-eared bat, and you have made separate "No Effect" determinations for all other species and critical habitats, if any, on your Official Species List, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

2) For Federal projects with a "Not Likely to Adversely Affect" determination, our concurrence becomes valid if you do not hear otherwise after a 15-day review period, as specified in your letter.

3) If your output letter indicates additional coordination with the appropriate Ecological

Services Field Office is necessary (i.e., you get a "May Affect" determination" without a concurrence that adverse effects are not likely), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of this key; ESA compliance cannot be concluded using the key for simple "May Affect" determinations.

Please note that only one assisted key may be completed per species for each project. Please carefully review the descriptions of all available keys to select the most appropriate key for your project. For instance, federal transportation projects with potential effects to listed bats may be advised to complete the key entitled, FHWA, FRA, FTA Programmatic Consultation for Transportation Projects affecting NLEB or Indiana Bat. Finally, be advised that this key is intended to assist the user in evaluating the effects of their actions on northern long-eared bat. It does not authorize any activities that are otherwise prohibited by the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other Federal or state statutes.

## Species covered by this key

This key covers the following species expected to occur in this project area:

Northern Long-eared Bat Myotis septentrionalis

# Critical habitats covered by this key

This key covers the critical habitats for the following species expected to occur in this project area:

None

For more information about this determination key, including a list of all potential questions, refer to the <u>detailed overview</u>.

# Qualification interview

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include

intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?



2. Your project overlaps with an area where northern long-eared bats may be present year-round. Time-of-year restrictions may not be appropriate for your project due to bats being active all year.

Do you understand that your project may impact bats at any time during the year and time-of-year restrictions may not apply to your project?



3. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.



4. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions (Action means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to:

- (a) actions intended to conserve listed species or their habitat;
- (b) the promulgation of regulations;
- (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or(d) actions directly or indirectly causing modifications to the land, water, or air.

50 CFR 402.02 "Action" .), answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal

permit, funding, etc.).

🗹 No

- 5. Is the proposed action (A federal action means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to:
  - (a) actions intended to conserve listed species or their habitat;

(b) the promulgation of regulations;

(c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or

(d) actions directly or indirectly causing modifications to the land, water, or air.

50 CFR 402.02 "Action".) authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?



6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?



7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative ( Designated non-Federal representative refers to a person designated by the Federal agency as its representative to conduct informal consultation and/or to prepare any biological assessment. 50 CFR 402.02 "Designated non Federal representative" .) for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.



 8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

🗹 No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?



10. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the <u>effects of any activities</u> that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer "No" below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project's action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a "no effect" determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer "No" and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of <u>Effects of the Action</u> can be found here: <u>https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</u>



11. Your project overlaps with an area where northern long-eared bats may be present year-round.

Is suitable northern long-eared bat habitat present within 1000 feet of project activities?



12. Will the action cause effects to a bridge?

🗹 No

13. Will the action result in effects to a culvert or tunnel?



14. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures



15. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?** 



16. Will the action directly or indirectly cause construction of one or more new roads that are open to the public?

**Note:** The answer may be yes when a publicly accessible road either (1) is constructed as part of the proposed action or (2) would not occur but for the proposed action (i.e., the road construction is facilitated by the proposed action but is not an explicit component of the project).



17. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic (the total volume of vehicle traffic of a highway or road for a year divided by 365 days - or, the volume of traffic moving in both

directions on a highway for the most average traffic day of the year for 24 hours) on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).



18. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).



19. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?



20. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

🗹 No

21. Will the action include drilling or blasting?



22. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

🗹 No

23. Will the proposed action involve the use of herbicide or other pesticides (e.g., fungicides, insecticides, or rodenticides)?

🗹 No

24. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat can be found at: <u>https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</u>



25. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

**Note:** Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: <u>https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</u>



26. Will the action use only downward-facing, full cut-off lens lights ( A light fixture or luminaire constructed and installed in such a manner that all light emitted from the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the fixture, is protected below the horizontal plane through the fixture's lowest light emitting part.) (with same intensity or less for replacement lighting)

when installing new or replacing existing permanent lights? Or for those transportation agencies using the Backlight, Uplight, Glare (BUG) system developed by the Illuminating Engineering Society, will all three ratings (backlight, uplight, and glare) be as close to zero as is possible, with a priority of "uplight" of 0?



27. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq$ 3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

Yes

# Project questionnaire

1. Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

3.9

2. In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>inactive</u> (hibernation) season for northern long-eared bat?

**Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <u>https://</u><u>www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</u>

0

3. In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>active</u> (non-hibernation) season for northern long-eared bat?

**Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <u>https://</u><u>www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</u>

0

4. Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

5. Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

3.9

6. For the area from which all potential northern long-eared bat (NLEB) roost trees will

be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

7. Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

8. Will all project activities by completed by November 30, 2024?

No

### Determination result

You have reached a determination of <u>may affect - not likely to adversely affect</u> based on this determination key. Review the guidance below and request USFWS concurrence for this project.

Based on the answers provided, the proposed Action is consistent with a determination of "may affect, but not likely to adversely affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

If you no longer wish to use this key for your project, you can delete your evaluation.

### **IPaC**

### U.S. Fish & Wildlife Service

# **Endangered Species Act Review**

EVALUATING: NORTHERN LONG-EARED BAT AND TRICOLORED BAT RANGE-WIDE DETERMINATION KEY

# Qualification interview

The following questions will determine whether this key applies to your project and provide guidance to help you make appropriate determinations for the species covered by this key.

1.1 1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?



2. Is the action area wholly within Zone 2 of the year-round active area for 1.1.2 northern long-eared bat and/or tricolored bat?



Automatically answered

1.1.3 3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?



4. Your project overlaps with an area where northern long-eared bats or 1.1.4 tricolored bats may be present and roosting in trees year-round.

Do you understand that your project may impact bats roosting in trees at any time during the year?



5. Does any component of the action involve leasing, construction or operation <sup>1.2</sup> of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

**Note:** For federal actions (Action means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to:

(a) actions intended to conserve listed species or their habitat;

(b) the promulgation of regulations;

(c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-inaid; or

(d) actions directly or indirectly causing modifications to the land, water, or air.

50 CFR 402.02 "Action" .), answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).



6. Is the proposed action (A federal action means all activities or programs of any 2.0 kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to:
(a) actions intended to conserve listed species or their habitat;

(b) the promulgation of regulations;

(c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or

(d) actions directly or indirectly causing modifications to the land, water, or air.

50 CFR 402.02 "Action".) authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?



7. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part? 3.0



8. Are you an employee of the federal action agency or have you been officially 5.0 designated in writing by the agency as its designated non-federal representative ( Designated non-Federal representative refers to a person designated by the Federal agency as its representative to conduct informal consultation and/or to prepare any biological assessment. 50 CFR 402.02 "Designated non Federal representative".) for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.



9. Is the lead federal action agency the Environmental Protection Agency (EPA) or 5.1 Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?



10. Is the lead federal action agency the Federal Energy Regulatory Commission 5.2 (FERC)?



11. [Semantic] Is the action area located within 0.5 miles of a known bat 6.3.1 hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.



12. Does the action area contain any winter roosts or caves (or associated 6.6 sinkholes, fissures (A narrow opening or crack of considerable length and depth usually occurring from some breaking or parting;), or other karst (An irregular

limestone region with sinkholes, underground streams, and caverns.) features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

🗹 No

13. Will the action cause effects to a bridge?	8.0

Note: Covered bridges should be considered as bridges in this question.



14. Will the action result in effects to a culvert or tunnel at any time of year? 8.6



15. Are trees present within 1000 feet of the action area? 8.11

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <u>https://</u>www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.



16. Does the action include the intentional exclusion of bats from a building or 9.0 structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/ structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.



17. Does the action involve removal, modification, or maintenance of a humanmade structure (barn, house, or other building) known or suspected to contain roosting bats?



18. Will the action cause construction of one or more new roads open to the 10.1 public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).



19. Will the action include or cause any construction or other activity that is 10.2 reasonably certain to increase average daily traffic (the total volume of vehicle traffic of a highway or road for a year divided by 365 days - or, the volume of traffic moving in both directions on a highway for the most average traffic day of the year for 24 hours) permanently or temporarily on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).



20. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).



21. Will the proposed Action involve the creation of a new water-borne
contaminant source (e.g., leachate pond, pits containing chemicals that are not
NSF/ANSI 60 (NSF/ANSI 60: Drinking Water Treatment Chemicals – Health Effects is an American National Standard that establishes the minimum health-effects

requirements for the chemicals, chemical contaminants and impurities that are directly added to drinking water from drinking water treatment chemicals. This standard does not establish performance or taste and odor requirements for drinking water treatment chemicals.) compliant)?

**Note:** For information regarding NSF/ANSI 60 please visit <u>https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects</u>



22. Will the proposed action involve the creation of a new point source discharge 11.1 from a facility other than a water treatment plant or storm water system?



23. Will the action include drilling or blasting?

13.0

🗹 No

24. Will the action involve military training (e.g., smoke operations, obscurant 14.0 operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found at: <u>https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.</u>



25. Will the proposed action involve the use of herbicides or other pesticides <sup>15.0</sup> other than herbicides (e.g., fungicides, insecticides, or rodenticides)?



26. Will the action include or cause activities that are reasonably certain to cause <sup>19.0</sup> chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for

a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <u>https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.</u>



27. Does the action include, or is it reasonably certain to cause, the use of 20.0 permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <u>https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.</u>



28. Will the action use only downward-facing, <u>full cut-off lens lights ( A light</u> 21.0 fixture or luminaire constructed and installed in such a manner that all light emitted from the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the fixture, is protected below the horizontal plane through the fixture's lowest light emitting part.) (with same intensity or less for replacement lighting) when installing new or replacing existing permanent lights?

Or for those transportation agencies using the Backlight, Uplight, Glare (BUG) system developed by the Illuminating Engineering Society, will all three ratings (backlight, uplight, and glare) be as close to zero as is possible, with a priority of "uplight" of 0?



29. Does the action area intersect the northern long-eared bat species list 100.0\_NLEB area?



Automatically answered

Yes

106.1 30. [Semantic] Is the action area wholly within the range where the Project should only consider impacts to northern long-eared bat from wind projects?

Note: If the proposed project is not a wind project, no additional impacts need to be considered.



Automatically answered

No

106.5.1 31. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?



Automatically answered

No

106.11.1 32. Your project overlaps with an area where northern long-eared bats may be present and roosting in trees year-round.

Is suitable northern long-eared bat habitat present within 1000 feet of project activities?



106.23 33. Your project overlaps with an area where northern long-eared bats may be present and roosting in trees year-round.

Has a presence/absence survey for the northern long-eared bat following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area? If unsure, answer "No."



200.0\_TCB 34. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

35. [Semantic] Is the action area wholly within the range where the Project 200.2 should only consider impacts to tricolored bats from wind projects?

**Note:** If the proposed project is not a wind project, no additional impacts need to be considered."

Automatically answered

No

36. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.



37. Your project overlaps with an area where tricolored bats may be present 200.24 and roosting in trees year-round.

Is suitable tricolored bat habitat present within 1000 feet of project activities? Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer "Yes." Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-batsurvey-guidelines.



38. Do you have any documents that you want to include with this 800.0\_Letter submission?

🗹 No

#### EVALUATION PROGRESS

You have reached a preliminary determination of <u>may affect</u> for species covered by this determination key.

### A.2 North Carolina State Clearinghouse Review



Roy Cooper Governor Pamela B. Cashwell Secretary

May 21, 2024

Kathy Krommes United States Marine Corps c/o HDR 4900 Ritter Rd. Suite 101 Mechanicsburg, PA 17055-

#### Re: SCH File # 24-E-0000-0261 Draft EA\_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution

Dear Kathy Krommes:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act.

Attached to this letter are comments made by the agencies in the review of this document. If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

If you have any questions, please do not hesitate to contact me at (984) 236-0000.

Sincerely,

KADISHA MOLYNEAUX State Environmental Review Clearinghouse

Attachments

Mailing 1301 Mail Service Center | Raleigh, NC 27699-1301



Location 116 West Jones St. | Raleigh NC 27603 984-236-0000 T

ncadmin.nc.gov

Control No.:	24-E-0000-0261	Date Received: 4/3/2024
County .:	CRAVEN	Agency Response: 5/3/2024
		Review Closed: 5/3/2024

#### LYN BILES CLEARINGHOUSE COORDINATOR DEPT OF ENVIRONMENTAL QUALITY

#### Project Information

Туре:	National Environmental Policy Act ironmental Assessment
Applicant:	United States Marine Corps
Project Desc.:	Draft EA_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

As a result of this review the following is submitted:

□No Comment	Comments Below	Documents Attached

Reviewed By: LYN BILES

Date: 5/21/2024



ROY COOPER Governor ELIZABETH S. BISER Secretary

- To: Kadisha Molyneaux State Clearinghouse NC Department of Administration
- From: Lyn Biles Division of Environmental Assistance and Customer Service Washington Regional Office
- Re: 24-0261

Environmental Assessment - Draft EA\_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point. Craven County

Date: May 11, 2024

The proposal for the mentioned project has been reviewed by the Department of Environment Quality. After analyzing the information provided, our agencies have identified several permits that may be required. You'll find the comments attached for your review.

We are always available to assist the applicant with any doubts or concerns.

Thank you for giving us the opportunity to respond.

Attachments


#### Reviewing Regional Office: <u>Washington</u> Project Number: <u>24-0261</u> Due Date: <u>4/26/2024</u> County: <u>Craven</u>

After review of this project, it has been determined that the DEQ permit(s) and/or approvals indicated may need to be obtained for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory time limit)		
Permit to construct & operate wastewater treatment facilities, non-standard sewer system extensions & sewer systems that do not discharge into state surface waters.	Application 90 days before begins construction or award of construction contracts. On-site inspection may be required. Post-application technical conference usual.	30 days (90 days)		
Permit to construct & operate, sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system	Fast-Track Permitting program consists of the submittal of an application and an engineer's certification that the project meets all applicable State rules and Division Minimum Design Criteria.	30 days (N/A)		
NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begins activity. On-site inspection. Pre- application conference usual. Additionally, obtain permit to construct wastewater treatment facility granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)		
Water Use Permit	Pre-application technical conference usually necessary.	30 days (N/A)		
Well Construction Permit	Complete application must be received, and permit issued prior to the installation of a groundwater monitoring well located on property not owned by the applicant, and for a large capacity (>100,000 gallons per day) water supply well.	7 days (15 days)		
Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)		
Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted, and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days		
Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)		
Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950	Please Note - The Health Hazards Control Unit (HHCU) of the N.C. Department of Health and Human Services, must be notified of plans to demolish a building, including residences for commercial or industrial expansion, even if no asbestos is present in the building.	60 days (90 days)		
The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres are to be disturbed. Plan must be filed with and approved by applicable Regional Office (Land Quality Section) at least 30 days before beginning activity. A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements. A fee of \$100 for the first acre or any part of an acre. An express review option is available with additional fees.20 days (30 days)				
Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets. (30 days)				
Sedimentation and erosion control must be addressed in accordance with <u>Local Government's</u> approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets.				
Compliance with 15A NCAC 04B .0125 – Buffers Z to confine visible siltation within the twenty-five of the siltation within the	ones for Trout Waters shall have an undisturbed buffer zone 25 feet wide o percent (25%) of the buffer zone nearest the land-disturbing activity, which	r of sufficient width ever is greater.		
Compliance with 15A NCAC 2H .0126 - NPDES Stormwater Program which regulates three types of activities: Industrial, Municipal Separate Storm Sewer System & Construction activities that disturb ≥1 acre.       30-60 days				
Compliance with 15A NCAC 2H 1000 -State Stormwater Permitting Programs regulate site development and post- construction stormwater runoff control. Areas subject to these permit programs include all 20 coastal counties, and (90 days)(90 days)				

# State of North Carolina Department of Environmental Quality INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

#### Reviewing Regional Office: <u>Washington</u> Project Number: <u>24-0261</u> Due Date: <u>4/26/2024</u>

County: Craven

PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory time limit)		
Mining Permit	On-site inspection usual. Surety bond filed with DEQ Bond amount varies with type mine and number of acres of affected land. Affected area greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)		
Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to prepare plans, inspect construction, and certify construction is according to DEQ approved plans. May also require a permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of \$200.00 must accompany the application. An additional processing fee based on a percentage, or the total project cost will be required upon completion.	30 days (60 days)		
Oil Refining Facilities	N/A	90-120 days (N/A)		
Permit to drill exploratory oil or gas well	File surety bond of \$5,000 with DEQ running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DEQ rules and regulations.	10 days N/A		
Geophysical Exploration Permit	Application filed with DEQ at least 10 days prior to issue of permit. Application by letter. No standard application forms.	10 days N/A		
State Lakes Construction Permit	Application fee based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property	15-20 days N/A		
401 Water Quality Certification	Compliance with the T15A 02H .0500 Certifications are required whenever construction or operation of facilities will result in a discharge into navigable water as described in 33 CFR part 323.	60 days (130 days)		
Compliance with Catawba, Goose Creek, Jordan Lake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Buffer requirements: <u>http://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits/401-riparian-buffer-protection-program</u>				
Nutrient Offset: Loading requirements for nitroge watersheds, as part of the nutrient-management <a href="http://deq.nc.gov/about/divisions/water-resourc">http://deq.nc.gov/about/divisions/water-resourc</a>	n and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jor strategies in these areas. DWR nutrient offset information: es/planning/nonpoint-source-management/nutrient-offset-information	dan and Falls Lake		
CAMA Permit for MAJOR development	\$250.00 - \$475.00 fee must accompany application	75 days (150 days)		
CAMA Permit for MINOR development	\$100.00 fee must accompany application	22 days (25 days)		
Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.				
Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.				
Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the         Division of Water Resources/Public Water Supply Section prior to the award of a contract or the initiation of construction         as per 15A NCAC 18C .0300 et. seq., Plans and specifications should be submitted to 1634 Mail Service Center, Raleigh,       30 days         North Carolina 27699-1634. All public water supply systems must comply with state and federal drinking water monitoring       30 days         requirements. For more information, contact the Public Water Supply Section, (919) 707-9100.       30 days				
If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699- 1634. For more information, contact the Public Water Supply Section. (919) 707-9100.				
Plans and specifications for the construction, expansion, or alteration of the water system must be approved through the delegated plan approval authority. Please contact them at for further information.				

# State of North Carolina Department of Environmental Quality INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

#### Other Comments (attach additional pages as necessary, being certain to comment authority)

Division	Initials	No comment	Comments	Date Review
DAQ				/ /
DWR-WQROS (Aquifer & Surface)	&		&	/ /
DWR-PWS	cww		If water lines (not including service lines) are added or relocated for this project, plans for the addition or relocation must be submitted to and approved by the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-1634 prior to water line work. For more information, contact the Public Water Supply Section at 919-707-9100.	4/10/2024
DEMLR (LQ & SW)	SD		E&SC required, SW by local MCAS program	4/11/2024
DWM – UST	AW		Comments are attached for review	/ /
Other Comments				/ /

#### **REGIONAL OFFICES**

Questions regarding these permits should be addressed to the Regional Office marked below.

<b>Asheville Regional Office</b> 2090 U.S. 70 Highway Swannanoa, NC 28778-8211 Phone: 828-296-4500 Fax: 828-299-7043	<b>Fayetteville Regional Office</b> 225 Green Street, Suite 714, Fayetteville, NC 28301-5043 Phone: 910-433-3300 Fax: 910-486-0707	Mooresville Regional Office 610 East Center Avenue, Suite 301, Mooresville, NC 28115 Phone: 704-663-1699 Fax: 704-663-6040
Raleigh Regional Office 3800 Barrett Drive, Raleigh, NC 27609 Phone: 919-791-4200 Fax: 919-571-4718	Washington Regional Office 943 Washington Square Mall, Washington, NC 27889 Phone: 252-946-6481 Fax: 252-975-3716	Wilmington Regional Office 127 Cardinal Drive Ext., Wilmington, NC 28405 Phone: 910-796-7215 Fax: 910-350-2004
	Winston-Salem Regional Office 450 Hanes Mill Road, Suite 300, Winston-Salem, NC 27105 Phone: 336-776-9800 Fax: 336-776-9797	

ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



TO:	Lyn Biles, Environmental Coordinator
FROM:	Allison Ward, Regional UST Supervisor
COPY:	Sharon Brinkley, Administrative Secretary
DATE:	April 10, 2024

RE: Environmental Review – Project Number 24-0261 – Project is for the proposed construction and operation of a permanent General-Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point. This project is located on Hwy 101, Fontana Blvd, in Havelock, Craven County.

Review of the Petroleum Underground Storage Tank (UST), and Non-UST Databases does not indicate any petroleum releases within the proposed project area. I reviewed the above proposal and determined that this project should not have any adverse impact upon groundwater. The following comments are pertinent to my review:

- The Washington Regional Office (WaRO) UST Section recommends removal of any abandoned or out-of-use petroleum USTs or petroleum above ground storage tanks (ASTs) within the project area. The UST Section should be contacted regarding use of any proposed or on-site petroleum USTs or ASTs. We may be reached at (252) 946-6481.
- 2. Any petroleum USTs or ASTs must be installed and maintained in accordance with applicable local, state, and federal regulations. For additional information on petroleum ASTs, it is advisable that the North Carolina Department of Insurance at (919) 661-5880 ext. 239, USEPA (404) 562-8761, local fire department, and Local Building Inspectors be contacted.
- 3. Any petroleum spills must be contained, and the area of impact must be properly restored. Petroleum spills of significant quantity must be reported to the North Carolina Department of Environmental Quality Division of Waste Management Underground Storage Tank Section in the Washington Regional Office at (252) 946-6481
- 4. Any soils excavated during demolition or construction that show evidence of petroleum contamination, such as stained soil, odors, or free product must be reported immediately to the local Fire Marshall to determine whether explosive or inhalation hazards exist. Also, notify the UST Section of the Washington Regional Office at (252) 946-6481. Petroleum contaminated soils must be handled in accordance with all applicable regulations.
- 5. Any questions or concerns regarding spills from petroleum USTs, ASTs, or vehicles should be directed to the UST Section at (252) 946-6481.



ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



#### MEMORANDUM

TO: Michael Scott, Division Director through Sharon Brinkley

FROM: Amanda Thompson, Environmental Senior Specialist - Solid Waste Section

DATE: April 9, 2024

SUBJECT: Review: SW 24-0261 – Craven County (EA/Draft FONSI – United Stated Marine Corps – Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk material and material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County.)

The Division of Waste Management, Solid Waste Section (Section) has reviewed the documents submitted for the subject project in Craven County, NC. Based on the information provided in this document, the Section at this time does not see an adverse impact on the surrounding communities and likewise knows of no situations in the communities which would affect this project.

For any planned or proposed projects, it is recommended that during any land clearing, demolition, and construction, the United States Marine Corps and/or its contractors would make every feasible effort to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable. Any waste generated by and of the project that cannot be beneficially reused or recycled as described, may require disposal of at a solid waste management facility permitted by the Division. The Section strongly recommends that the United States Marine Corps require all contractors to provide proof of proper disposal for all generated waste to permitted facilities.

Permitted solid waste management facilities are listed on the Division of Waste Management, Solid Waste Section portal site at: <u>https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/solid-waste-management-annual-reports/solid-waste-permitted-facility-list</u>

And the site locator tool at:

https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebfa49fc 383f688

Questions regarding solid waste management for this project should be directed to Mr. Ray Williams, Environmental Senior Specialist, Solid Waste Section, at (252) 948-3955.

cc: Ray Williams, Environmental Senior Specialist



ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



Date: April 10, 2024

To: Michael Scott, Director Division of Waste Management

- Through: Janet Macdonald Inactive Hazardous Sites Branch
- From: Katie C Tatum Inactive Hazardous Sites Branch

#### Subject: NEPA Project # 24-0261 United States Marine Corps, Craven County, North Carolina

The Superfund Section has reviewed the proximity of sites under its jurisdiction to the United States Marine Corps project. Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk material and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

One (1) Superfund Section sites and no (0) Brownfields Program Sites were identified within one mile of the project as shown on the attached report. The Superfund Section recommends that site files be reviewed to ensure that appropriate precautions are incorporated into any construction activities that encounter potentially contaminated soil or groundwater. Superfund Section files can be viewed at: <u>http://deq.nc.gov/waste-management-laserfiche.</u>

Please contact Janet Macdonald at 919.707.8349 if you have any questions concerning the Superfund Section review portion of this SEPA/NEPA inquiry.



North Carolina Department of Environmental Quality | Division of Waste Management 217 West Jones Street | 1646 Mail Service Center | Raleigh, North Carolina 27699-1646 919.707.8200

about:blank

# Superfund & Brownfield Sites SEPA/NEPA Review Report

#### Area of Interest (AOI) Information

Craven County NEPA project 24-0261

Area : 3,251.15 acres

Apr 10 2024 9:11:20 Eastern Daylight Time



#### Superfund and Brownfield Sites Craven County NEPA project 24-0261

#### Summary

Name	Count	Area(acres)	Length(mi)
Certified DSCA Sites	0	N/A	N/A
Federal Remediation Branch Sites	1	N/A	N/A
Inactive Hazardous Sites	0	N/A	N/A
Pre-Regulatory Landfill Sites	0	N/A	N/A
Brownfields Program Sites	0	N/A	N/A

#### Federal Remediation Branch Sites

#	SITE_ID	SITE_NAME	Count
1	NC1170027261	MCAS Cherry Point	1

#### Project Number: 24-0261

**County: Craven** 

Date Received: 4-3-2024

Due Date: 4-26-2024

#### **Project Description:**

Environmental Assessment - Draft EA\_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

This Project is being reviewed as indicated below:

Regional Office	<b>Regional Office Area</b>	In-House Review	
<ul> <li>Asheville</li> <li>Fayetteville</li> <li>Mooresville</li> <li>Raleigh</li> <li>Washington</li> <li>Wilmington</li> <li>Winston Salem</li> </ul>	Air DWR DWR - Public Water DEMLR (LQ & SW) DWM	Air Quality Waste Mgmt Water Resources Mgmt (P Water, Planning & Water Quality Program) DWR-Transportation Unit	Coastal Management Marine Fisheries CC & PS Div. of Emergency Mgmt DMF-Shellfish Sanitation Wildlife Maria Wildlife/DOT
Manager Sign-Off/Region:		Date:	In-House Reviewer/Agency:
		4/19/24	Melodi Deaver, DWM Hazardous Waste
Response (check all applicable)         No objection to project as proposed.         Insufficient information to complete review		X No Comment Other (specify or attach co	mments)

#### Project Number: 24-0261

**County: Craven** 

Date Received: 4-3-2024

Due Date: 4-26-2024

#### **Project Description:**

Environmental Assessment - Draft EA\_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

This Project is being reviewed as indicated below:

<b>Regional Office</b>	<b>Regional Office Area</b>	In-House Review	
<ul> <li>Asheville</li> <li>Fayetteville</li> <li>Mooresville</li> <li>Raleigh</li> <li>Washington</li> <li>Wilmington</li> <li>Winston Salem</li> </ul>	Air DWR DWR - Public Water DEMLR (LQ & SW) DWM	Air Quality Waste Mgmt Water Resources Mgmt (P Water, Planning & Water Quality Program) DWR-Transportation Unit	Coastal Management Marine Fisheries CC & PS Div. of Emergency Mgmt DMF-Shellfish Sanitation Wildlife Maria Wildlife/DOT
Manager Sign-Off/Region:		Date:	In-House Reviewer/Agency:
		4/12/2024	DWR/WRM David Wainwright
Response (check all applicable) No objection to project as proposed Insufficient information to complete review		<u>X</u> No Comment Other (specify or attach co	mments)

Control No.:	24-E-0000-0261	Date Received: 4/3/2024
County .:	CRAVEN	Agency Response: 5/3/2024
		Review Closed: 5/3/2024

#### JINTAO WEN CLEARINGHOUSE COORDINATOR DPS - DIV OF EMERGENCY MANAGEMENT

#### Project Information

Туре:	National Environmental Policy Act ironmental Assessment
Applicant:	United States Marine Corps
Project Desc.:	Draft EA_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

As a result of this review the following is submitted:

✓ No Comment	Comments Below	Documents Attached

Reviewed By: JINTAO WEN

Date: 4/29/2024

Control No.:	24-E-0000-0261	Date Received: 4/3/2024
County .:	CRAVEN	Agency Response: 5/3/2024
		Review Closed: 5/3/2024

#### DEVON BORGARDT

#### CLEARINGHOUSE COORDINATOR DEPT OF NATURAL & CULTURAL RESOURCE

#### Project Information

Туре:	National Environmental Policy Act ironmental Assessment
Applicant:	United States Marine Corps
Project Desc.:	Draft EA_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

As a result of this review the following is submitted:

	No Comment	Comments Below	✓ Documents Attached
SHPO No Comment	ER 24-0995		

Reviewed By: DEVON BORGARDT

Date: 4/26/2024



North Carolina Department of Natural and Cultural Resources

**State Historic Preservation Office** 

Ramona M. Bartos, Administrator

Governor Roy Cooper Secretary D. Reid Wilson Office of Archives and History Deputy Secretary, Darin J. Waters, Ph.D.

April 26, 2024

#### MEMORANDUM

TO: Kadisha Molyneaux North Carolina State Clearinghouse Department of Administration kadisha.molyneaux@doa.nc.gov

FROM: Ramona M. Bartos, Deputy State Historic Preservation Officer

Rese for Ramona M. Bartos

SUBJECT: Construct General Purpose Warehouse, Marine Corps Air Station, Cherry Point, Craven County, 24-E-0000-0261, ER 24-0995

Thank you for your email of April 4, 2024, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or <u>environmental.review@dncr.nc.gov</u>. In all future communication concerning this project, please cite the above referenced tracking number.

Control No.:	24-E-0000-0261	Date Received: 4/3/2024
County .:	CRAVEN	Agency Response: 5/3/2024
		Review Closed: 5/3/2024

#### JESSICA MOSLEY CLEARINGHOUSE COORDINATOR DEPT OF TRANSPORTATION

#### Project Information

Туре:	National Environmental Policy Act ironmental Assessment
Applicant:	United States Marine Corps
Project Desc.:	Draft EA_FONSI - Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk materiel and a material handling equipment maintenance facility at Marine Corps Air Station Cherry Point in Craven County, NC, for use by Defense Logistics Agency Distribution Cherry Point.

As a result of this review the following is submitted:

□No Comment	Comments Below	Documents Attached

Reviewed By: JESSICA MOSLEY

Date: 4/17/2024



#### STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER GOVERNOR J. ERIC BOYETTE Secretary

DATE:	April 16, 2024
TO:	North Carolina State Clearinghouse Department of Administration Intergovernmental Review
FROM:	Amanda Killian, E.I. Manda Kullan NCDOT-Transportation Planning Division
SUBJECT:	24-E-0000-0261 – Proposed project is to construct and operate a permanent General Purpose Warehouse for the storage of bulk material.

Thank you for allowing the Transportation Planning Division to review the project proposal. In reviewing the information, below are some plan updates and recommendations.

The 2023 Craven County County Comprehensive Transportation Plan (CTP) includes NC 101 near this project as an area the 'needs improvement'.

It is recommended to keep in touch with NCDOT and up to date with the State Transportation Improvement Program (STIP) to ensure construction of the housing complex will not be affected by roadway improvements.

The CTP report and maps are at the following NDCOT website: http://tiny.cc/0hqsxz

The STIP can be found here: https://tinyurl.com/2kx57s59

Thank you and if you have any questions, please do not hesitate to email me at abkillian@ncdot.gov or call me at 919-707-0961.

Mailing Address: NC DEPARTMENT OF TRANSPORTATION TRANSPORTATION PLANNING DIVISION 1554 MAIL SERVICE CENTER RALEIGH, NC 27699-1554 Telephone: (919) 707-0900 Fax: (919) 733-9794 Customer Service: 1-877-368-4968

*Location:* 1 SOUTH WILMINGTON ST RALEIGH, NC 27601

Website: www.ncdot.gov



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# B

# Air Quality Calculations



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#### AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

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

#### a. Action Location:

Base:NO BASEState:North CarolinaCounty(s):CravenRegulatory Area(s):NOT IN A REGULATORY AREA

**b. Action Title:** Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution Cherry Point, North Carolina

#### c. Project Number/s (if applicable):

#### d. Projected Action Start Date: 1 / 2027

#### e. Action Description:

The Proposed Action is to construct and operate a GPW at the DLA Depot, which is located at Marine Corps Air Station (MCAS) Cherry Point, North Carolina.

#### f. Point of Contact:

Name:	Carolyn Hein
Title:	Environmental Scientist
Organization:	HDR
Email:	carolyn.hein@hdrinc.com
Phone Number:	484-612-1060

**2. Air Impact Analysis:** Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

\_\_\_\_\_ applicable \_\_X\_\_ not applicable

Total net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" (i.e., net gain/loss upon action fully implemented) emissions. The ACAM analysis used the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the USAF Air Emissions Guide for Air Force Stationary Sources, the USAF Air Emissions Guide for Air Force Mobile Sources, and the USAF Air Emissions Guide for Air Force Transitory Sources.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of potential impacts to air quality based on current ambient air quality relative to the National Ambient Air Quality Standards (NAAQSs). These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold for actions occurring in areas that are "Clearly Attainment" (i.e., not within 5% of any NAAQS) and the GCR de minimis values (25 ton/yr for lead and 100 ton/yr for all other criteria pollutants) for actions occurring in areas that are "Near Nonattainment" (i.e., within 5% of any NAAQS). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutant is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQSs. For further detail on insignificance

#### AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

indicators see chapter 4 of the Air Force Air Quality Environmental Impact Analysis Process (EIAP) Guide, Volume II - Advanced Assessments.

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicator and are summarized below.

#### **Analysis Summary:**

2027					
Pollutant	Action Emissions (ton/yr)	r) INSIGNIFICANCE INDICATOR			
		Indicator (ton/yr)	Exceedance (Yes or No)		
NOT IN A REGULATORY	AREA				
VOC	0.483	250			
NOx	2.884	250			
CO	3.503	250			
SOx	0.009	250			
PM 10	80.384	250			
PM 2.5	0.099	250			
Pb	0.000	25	No		
NH3	0.006	250			
CO2e	1067.5				

2028

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY	AREA	· · ·	
VOC	0.274	250	
NOx	1.986	250	
СО	2.486	250	
SOx	0.006	250	
PM 10	0.058	250	
PM 2.5	0.057	250	
Pb	0.000	25	No
NH3	0.009	250	
CO2e	754.2		

2029

Pollutant	Action Emissions (ton/yr) INSIGNIFICANCE INDICATOR			
		Indicator (ton/yr)	Exceedance (Yes or No)	
NOT IN A REGULATORY	AREA			
VOC	4.583	250		
NOx	1.828	250		
СО	2.328	250		
SOx	0.005	250		
PM 10	0.062	250		
PM 2.5	0.061	250		
Pb	0.000	25	No	
NH3	0.007	250		
CO2e	648.2			

2030

2000				
Pollutant	Action Emissions (ton/yr)	) INSIGNIFICANCE INDICATOR		
		Indicator (ton/yr)	Exceedance (Yes or No)	

#### AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

NOT IN A REGULATORY AREA					
VOC	0.105	250			
NOx	1.836	250			
СО	1.539	250			
SOx	0.016	250			
PM 10	0.143	250			
PM 2.5	0.143	250			
Pb	0.000	25	No		
NH3	0.000	250			
CO2e	2185.4				

#### 2031 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICAN	CE INDICATOR				
		Indicator (ton/yr)	Exceedance (Yes or No)				
NOT IN A REGULATORY	AREA						
VOC	0.105	250					
NOx	1.836	250					
СО	1.539	250					
SOx	0.016	250					
PM 10	0.143	250					
PM 2.5	0.143	250					
Pb	0.000	25	No				
NH3	0.000	250					
CO2e	2185.4						

None of estimated annual net emissions associated with this action are above the insignificance indicators, indicating no significant impact to air quality. Therefore, the action will not cause or contribute to an exceedance on one or more NAAQSs.No further air assessment is needed.

Composition

Carolyn Hein, Environmental Scientist

10/14/2022 DATE

#### **1. General Information**

#### - Action Location

Base:NO BASEState:North CarolinaCounty(s):CravenRegulatory Area(s):NOT IN A REGULATORY AREA

- Action Title: Construction and Operation of a General Purpose Warehouse at Defense Logistics Agency Distribution Cherry Point, North Carolina
- Project Number/s (if applicable):
- Projected Action Start Date: 1 / 2027

#### - Action Purpose and Need:

The purpose of the Proposed Action is to reduce the bulk storage deficiency at the Defense Logistics Agency (DLA) Distribution Cherry Point (DLA Depot), provide flexibility for future mission requirements, and improve operational efficiency to support the current and future DLA Depot mission.

The Proposed Action is needed because adequate General Purpose Warehouse (GPW) facilities are not available to support the current and future DLA Depot mission and the configuration of the existing DLA Depot storage facilities limits storage flexibility. All existing on- and off-installation storage facilities suitable for use as a GPW are fully utilized, which has resulted in the use of outdoor storage areas and environmental damage to materiel. Additionally, the Proposed Action is needed because operational efficiency is limited by the age and geographic separation of the existing DLA Depot storage facilities.

#### - Action Description:

The Proposed Action is to construct and operate a GPW at the DLA Depot, which is located at Marine Corps Air Station (MCAS) Cherry Point, North Carolina.

# Point of Contact Name: Carolyn Hein Title: Environmental Scientist Organization: HDR Email: carolyn.hein@hdrinc.com

484-612-1060

#### - Activity List:

Phone Number:

Activity Type		Activity Title
2.	Construction / Demolition	Construct GPW and MHE Maintenance Facility
3.	Heating	Heating for New GPW and MHE Maintenance Facility
4.	Emergency Generator	Emergency Generator for Controlled Humidity Equipment

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

#### 2. Construction / Demolition

#### 2.1 General Information & Timeline Assumptions

#### - Activity Location

County: Craven Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Construct GPW and MHE Maintenance Facility

#### - Activity Description:

Construction of the GPW and MHE maintenance facility would occur from January 2027 through December 2029 (3 years). The construction timeline is approximate. Information contained in the 10% Conceptual Design Drawings and Design Analysis in Appendix J and the Cost Estimates in Appendix B of the Prefinal Facility Study (DLA 2022b)were used to prepare the emission estimates.

Demolition of existing asphalt (145,185 square feet) on Marylou and Sheep Roads would occur to a depth of 2 inches. Asphalt demolition would begin in January 2027 and last approximately 1 month.

Site grading includes grading the entire project site and preparing areas for new pavements or construction. Site grading would occur on an area totaling 33.3 acres (1,450,714 square feet). Site grading would begin in February 2027 and last approximately 4 months.

Excavation would be required for removal of abandoned site utilities; pavement; and structural foundations; removal of existing fencing; extension of the stormwater drainage ditch (i.e., bar ditch) and stormwater detention pond; installation of new utilities; extension of Sheep Road; and installation of temporary and new fencing. Excavation and trenching that would be required is as follows:

- Demolish abandoned stormwater lines: 1,070 linear feet (assumed 10-foot-wide excavation)
- Demolish abandoned sewer lines: 1,070 linear feet (assumed 10-foot-wide excavation)
- Demolish existing roads and structural foundations: 0.7 acres (30,492 square feet)
- Demolish existing fencing: 3,000 linear feet (assumed 1-foot-wide excavation)
- Extend stormwater drainage ditch: 4,500 linear feet (assumed 15-foot-wide excavation)
- Expand stormwater detention pond: 279,198 square feet
- Trenching for new underground sanitary sewer line: 2,246 linear feet (assumed 10-foot-wide excavation)
- Trenching for new underground stormwater line: 2,185 linear feet (assumed 10-foot-wide excavation)
- Trenching for new underground water supply line: 6,544 linear feet (assumed 5-foot-wide excavation)
- Trenching for new underground natural gas line: 850 linear feet (assumed 5-foot-wide excavation)

- Trenching for new underground primary and secondary electrical duct bank: 2,900 linear feet (assumed 5-foot-wide excavation)

- Trenching for new underground exterior lighting conduit: 1,080 linear feet (assumed 1-foot-wide excavation)
- Trenching for new underground communications conduit: 2,900 linear feet (assumed 5-foot-wide excavation)
- Excavation for Sheep Road extension: 2,000 linear feet (assumed 25-foot-wide excavation)
- Installation of temporary security fencing: 2,000 linear feet (assumed 1-foot-wide excavation)
- Installation of new permanent security fencing: 1,800 linear feet (assumed 1-foot-wide excavation)
- Total area of excavation/trenching: 566,750 square feet

Excavation for new building foundations would require approximately 35,500 cubic yards of materials to be hauled off-site. Approximately 56,500 cubic yards of fill material would be required to be hauled on-site. Excavated material will be repurposes and used on-site to the extent practicable. Excavation and trenching would start in June 2027 and last approximately 4 months.

Construction would include the new GPW (371,689 square feet) and new MHE maintenance facility (9,437 square feet) for a total of 381,126 square feet. The maximum height of the GPW would be 73 feet. A height of 73 feet was conservatively used as the height for all new construction. Construction would begin October 2027 and last approximately 24 months.

Architectural coatings would be applied to the new GPW and MHE maintenance facility, totaling 381,126 square feet. Architectural coating application would begin September 2029 and last approximately 1 month.

Paving would including new pavement for parking areas, sidewalks, and roadways (331,611 square feet) and repavement (asphalt) of Marylou Road and Sheep Road (145,185 square feet) for a total of 476,796 square feet. Paving would begin in October 2029 and last approximately 3 months.

#### - Activity Start Date

Start Month:	1
Start Month:	2027

- Activity End Date Indefinite: False End Month: 12 End Month: 2029

#### - Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	5.339579
SO <sub>x</sub>	0.020244
NO <sub>x</sub>	6.697788
CO	8.316574
PM 10	80.503453

Pollutant	Total Emissions (TONs)
PM 2.5	0.217757
Pb	0.000000
NH <sub>3</sub>	0.023119
CO <sub>2</sub> e	2470.0

#### 2.1 Demolition Phase

#### 2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month:	1
Start Quarter:	1
Start Year:	2027

- Phase Duration

Number of Month: 1

- Number of Days: 0
- 2.1.2 Demolition Phase Assumptions
- General Demolition Information
   Area of Building to be demolished (ft<sup>2</sup>): 145185
   Height of Building to be demolished (ft): 0.17
- Default Settings Used: Yes
- Average Day(s) worked per week: 5 (default)
- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd <sup>3</sup> ):	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)

	***	<b>—</b> •			(0/)
-	Worker	Trips	Vehicle	Mixture	(%)

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

#### 2.1.3 Demolition Phase Emission Factor(s)

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

Concrete/Industrial Saws Composite								
	VOC	SOx	NO <sub>x</sub>	CO	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e
<b>Emission Factors</b>	0.0336	0.0006	0.2470	0.3705	0.0093	0.0093	0.0030	58.539
<b>Rubber Tired Dozers</b>	Rubber Tired Dozers Composite							
	VOC	SOx	NO <sub>x</sub>	СО	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Tractors/Loaders/Backhoes Composite								
	VOC	SOx	NO <sub>x</sub>	СО	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

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

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	$\mathbf{NH}_3$	CO <sub>2</sub> e
LDGV	000.197	000.002	000.102	003.075	000.004	000.003		000.024	00302.069
LDGT	000.206	000.003	000.183	003.484	000.005	000.005		000.026	00392.350
HDGV	000.850	000.006	000.833	013.376	000.024	000.021		000.051	00907.030
LDDV	000.067	000.001	000.079	003.184	000.003	000.002		000.008	00305.844
LDDT	000.071	000.001	000.118	002.164	000.003	000.003		000.009	00355.582
HDDV	000.106	000.004	002.338	001.519	000.041	000.038		000.032	01242.563
MC	002.594	000.003	000.660	012.841	000.024	000.021		000.054	00389.219

#### 2.1.4 Demolition Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

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

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft<sup>3</sup>)
BA: Area of Building to be demolished (ft<sup>2</sup>)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

## - Construction Exhaust Emissions per Phase $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF<sub>POL</sub>: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

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

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft<sup>2</sup>)
BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd<sup>3</sup> / 27 ft<sup>3</sup>)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd<sup>3</sup>)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

#### - Worker Trips Emissions per Phase

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

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

V<sub>POL</sub>: Vehicle Emissions (TONs)
VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

#### 2.2 Site Grading Phase

#### 2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month:2Start Quarter:1Start Year:2027

- Phase Duration

Number of Month: 4 Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information	
Area of Site to be Graded (ft <sup>2</sup> ):	1450714
Amount of Material to be Hauled On-Site (yd <sup>3</sup> ):	0
Amount of Material to be Hauled Off-Site (yd <sup>3</sup> ):	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
Rubber Tired Dozers Composite	1	8
Scrapers Composite	3	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd <sup>3</sup> ):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

#### - Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

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

#### - Worker Trips Vehicle Mixture (%)

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

#### 2.2.3 Site Grading Phase Emission Factor(s)

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

Excavators Composit	te							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
Graders Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
Other Construction Equipment Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
<b>Rubber Tired Dozers</b>	s Composite	e						
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
Scrapers Composite								
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								

	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e
<b>Emission Factors</b>	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

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

	VOC	SOx	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>	CO <sub>2</sub> e
LDGV	000.197	000.002	000.102	003.075	000.004	000.003		000.024	00302.069
LDGT	000.206	000.003	000.183	003.484	000.005	000.005		000.026	00392.350
HDGV	000.850	000.006	000.833	013.376	000.024	000.021		000.051	00907.030
LDDV	000.067	000.001	000.079	003.184	000.003	000.002		000.008	00305.844
LDDT	000.071	000.001	000.118	002.164	000.003	000.003		000.009	00355.582
HDDV	000.106	000.004	002.338	001.519	000.041	000.038		000.032	01242.563
MC	002.594	000.003	000.660	012.841	000.024	000.021		000.054	00389.219

#### 2.2.4 Site Grading Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

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

PM10<sub>FD</sub>: 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<sub>POL</sub>: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF<sub>POL</sub>: 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<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles) HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>) HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>) HC: Average Hauling Truck Capacity (yd<sup>3</sup>) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>) HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V<sub>POL</sub>: Vehicle Emissions (TONs)
VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF<sub>POL</sub>: 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<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

 $V_{POL}$ : Vehicle Emissions (TONs) VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

#### 2.3 Trenching/Excavating Phase

#### 2.3.1 Trenching / Excavating Phase Timeline Assumptions

Phase Start Date	
Start Month:	6
Start Quarter:	1
Start Year:	2027

- Phase Duration

-

Number of Month: 4 Number of Days: 0

#### 2.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information	
Area of Site to be Trenched/Excavated (ft <sup>2</sup> ):	566750
Amount of Material to be Hauled On-Site (yd <sup>3</sup> ):	56500
Amount of Material to be Hauled Off-Site (yd <sup>3</sup> ):	35500

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

#### - Construction Exhaust (default)

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

#### - Vehicle Exhaust

Average Hauling Truck Capacity (yd <sup>3</sup> ):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

#### - Vehicle Exhaust Vehicle Mixture (%)

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

#### - Worker Trips

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

#### - Worker Trips Vehicle Mixture (%)

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

#### 2.3.3 Trenching / Excavating Phase Emission Factor(s)

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

<b>Excavators</b> Composit	te							
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70
<b>Graders</b> Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
<b>Emission Factors</b>	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89
<b>Other Construction H</b>	Equipment	Composite						
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60
<b>Rubber Tired Dozers</b>	. Composite	•						
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45
<b>Scrapers Composite</b>								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81
Tractors/Loaders/Backhoes Composite								
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH4	CO <sub>2</sub> e
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

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

			1			,			
	VOC	SOx	NO <sub>x</sub>	СО	PM 10	PM 2.5	Pb	NH <sub>3</sub>	CO <sub>2</sub> e
LDGV	000.197	000.002	000.102	003.075	000.004	000.003		000.024	00302.069
LDGT	000.206	000.003	000.183	003.484	000.005	000.005		000.026	00392.350
HDGV	000.850	000.006	000.833	013.376	000.024	000.021		000.051	00907.030
LDDV	000.067	000.001	000.079	003.184	000.003	000.002		000.008	00305.844
LDDT	000.071	000.001	000.118	002.164	000.003	000.003		000.009	00355.582
HDDV	000.106	000.004	002.338	001.519	000.041	000.038		000.032	01242.563
MC	002.594	000.003	000.660	012.841	000.024	000.021		000.054	00389.219

#### 2.3.4 Trenching / Excavating Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

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

PM10<sub>FD</sub>: 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<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF<sub>POL</sub>: 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<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles) HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>) HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>) HC: Average Hauling Truck Capacity (yd<sup>3</sup>) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>) HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

#### - Worker Trips Emissions per Phase

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

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

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

#### 2.4 Building Construction Phase

#### 2.4.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month:10Start Quarter:1Start Year:2027

- Phase Duration Number of Month: 24 Number of Days: 0

#### 2.4.2 Building Construction Phase Assumptions

#### - General Building Construction Information

<b>Building Category:</b>	Office or Industrial
Area of Building (ft <sup>2</sup> ):	381126
Height of Building (ft):	73
Number 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	7
Forklifts Composite	2	7
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	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

#### 2.4.3 Building Construction Phase Emission Factor(s)

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

Cranes Composite									
	VOC	SOx	NOx	CO	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e	
Emission Factors	0.0680	0.0013	0.4222	0.3737	0.0143	0.0143	0.0061	128.77	
Forklifts Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e	
Emission Factors	0.0236	0.0006	0.0859	0.2147	0.0025	0.0025	0.0021	54.449	
Generator Sets Composite									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e	

Emission Factors	0.0287	0.0006	0.2329	0.2666	0.0080	0.0080	0.0025	61.057			
Tractors/Loaders/Backhoes Composite											
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e			
Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872			
Welders Composite											
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e			
Emission Factors	0.0214	0.0003	0.1373	0.1745	0.0051	0.0051	0.0019	25.650			

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

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>	CO <sub>2</sub> e
LDGV	000.197	000.002	000.102	003.075	000.004	000.003		000.024	00302.069
LDGT	000.206	000.003	000.183	003.484	000.005	000.005		000.026	00392.350
HDGV	000.850	000.006	000.833	013.376	000.024	000.021		000.051	00907.030
LDDV	000.067	000.001	000.079	003.184	000.003	000.002		000.008	00305.844
LDDT	000.071	000.001	000.118	002.164	000.003	000.003		000.009	00355.582
HDDV	000.106	000.004	002.338	001.519	000.041	000.038		000.032	01242.563
MC	002.594	000.003	000.660	012.841	000.024	000.021		000.054	00389.219

#### 2.4.4 Building Construction Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

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

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) EF<sub>POL</sub>: 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<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft<sup>2</sup>)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.42 trip / 1000 ft<sup>3</sup>)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V<sub>POL</sub>: Vehicle Emissions (TONs)
VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

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

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

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

V<sub>POL</sub>: Vehicle Emissions (TONs)
VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF<sub>POL</sub>: 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<sub>VT</sub> = BA \* BH \* (0.38 / 1000) \* HT

VMT<sub>VT</sub>: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft<sup>2</sup>)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.38 trip / 1000 ft<sup>3</sup>)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

V<sub>POL</sub>: Vehicle Emissions (TONs)
VMT<sub>VT</sub>: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

#### 2.5 Architectural Coatings Phase

#### 2.5.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date Start Month: 9 Start Quarter: 1 Start Year: 2029

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

#### 2.5.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information Building Category: Non-Residential Total Square Footage (ft<sup>2</sup>): 371126 Number of Units: N/A
- Architectural Coatings Default Settings
   Default Settings Used: Yes
   Average Day(s) worked per week: 5 (default)
- 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

#### 2.5.3 Architectural Coatings Phase Emission Factor(s)

#### - Worker Trips Emission Factors (grams/mile)

	VOC	SOx	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>	CO <sub>2</sub> e
LDGV	000.197	000.002	000.102	003.075	000.004	000.003		000.024	00302.069
LDGT	000.206	000.003	000.183	003.484	000.005	000.005		000.026	00392.350
HDGV	000.850	000.006	000.833	013.376	000.024	000.021		000.051	00907.030
LDDV	000.067	000.001	000.079	003.184	000.003	000.002		000.008	00305.844
LDDT	000.071	000.001	000.118	002.164	000.003	000.003		000.009	00355.582
HDDV	000.106	000.004	002.338	001.519	000.041	000.038		000.032	01242.563
MC	002.594	000.003	000.660	012.841	000.024	000.021		000.054	00389.219

#### 2.5.4 Architectural Coatings Phase Formula(s)

#### - Worker Trips Emissions per Phase

 $VMT_{WT} = (1 * WT * PA) / 800$ 

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man \* day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft<sup>2</sup>)

800: Conversion Factor square feet to man days (  $1 \text{ ft}^2 / 1 \text{ man * day}$ )

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

 $V_{POL}$ : Vehicle Emissions (TONs) VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

#### - Off-Gassing Emissions per Phase

 $VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$ 

VOC<sub>AC</sub>: Architectural Coating VOC Emissions (TONs)
BA: Area of Building (ft<sup>2</sup>)
2.0: Conversion Factor total area to coated area (2.0 ft<sup>2</sup> coated area / total area)
0.0116: Emission Factor (lb/ft<sup>2</sup>)
2000: Conversion Factor pounds to tons

#### 2.6 Paving Phase

#### 2.6.1 Paving Phase Timeline Assumptions

- Phase Start Date Start Month: 10 Start Quarter: 1 Start Year: 2029

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

#### 2.6.2 Paving Phase Assumptions

- General Paving Information Paving Area (ft<sup>2</sup>): 476796
- 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
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

#### - 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				

#### 2.6.3 Paving Phase Emission Factor(s)

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

<b>Excavators</b> Composit	Excavators Composite										
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e			
<b>Emission Factors</b>	0.0559	0.0013	0.2269	0.5086	0.0086	0.0086	0.0050	119.70			
<b>Graders</b> Composite											
	VOC	SOx	NO <sub>x</sub>	СО	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e			
Emission Factors	0.0676	0.0014	0.3314	0.5695	0.0147	0.0147	0.0061	132.89			
<b>Other Construction H</b>	Equipment (	Composite									
	VOC	SOx	NO <sub>x</sub>	CO	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e			
Emission Factors	0.0442	0.0012	0.2021	0.3473	0.0068	0.0068	0.0039	122.60			
<b>Rubber Tired Dozers</b>	Composite	•									
	VOC	SOx	NOx	СО	PM 10	PM 2.5	CH4	CO <sub>2</sub> e			
Emission Factors	0.1671	0.0024	1.0824	0.6620	0.0418	0.0418	0.0150	239.45			
Scrapers Composite											
	VOC	SOx	NO <sub>x</sub>	СО	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e			
Emission Factors	0.1495	0.0026	0.8387	0.7186	0.0334	0.0334	0.0134	262.81			
Tractors/Loaders/Ba	ckhoes Con	ıposite									
	VOC	SOx	NO <sub>x</sub>	CO	PM 10	PM 2.5	CH <sub>4</sub>	CO <sub>2</sub> e			
# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Emission Factors	0.0335	0.0007	0.1857	0.3586	0.0058	0.0058	0.0030	66.872

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

	VOC	SOx	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>	CO <sub>2</sub> e
LDGV	000.197	000.002	000.102	003.075	000.004	000.003		000.024	00302.069
LDGT	000.206	000.003	000.183	003.484	000.005	000.005		000.026	00392.350
HDGV	000.850	000.006	000.833	013.376	000.024	000.021		000.051	00907.030
LDDV	000.067	000.001	000.079	003.184	000.003	000.002		000.008	00305.844
LDDT	000.071	000.001	000.118	002.164	000.003	000.003		000.009	00355.582
HDDV	000.106	000.004	002.338	001.519	000.041	000.038		000.032	01242.563
MC	002.594	000.003	000.660	012.841	000.024	000.021		000.054	00389.219

# 2.6.4 Paving Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

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

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF<sub>POL</sub>: 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<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft<sup>2</sup>)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd<sup>3</sup> / 27 ft<sup>3</sup>)
HC: Average Hauling Truck Capacity (yd<sup>3</sup>)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

# - Worker Trips Emissions per Phase

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

VMT<sub>WT</sub>: 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

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

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

 $V_{POL}$ : Vehicle Emissions (TONs) VMT<sub>VE</sub>: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF<sub>POL</sub>: 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<sub>P</sub>: Paving VOC Emissions (TONs)
2.62: Emission Factor (lb/acre)
PA: Paving Area (ft<sup>2</sup>)
43560: Conversion Factor square feet to acre (43560 ft2 / acre)<sup>2</sup> / acre)

# 3. Heating

# 3.1 General Information & Timeline Assumptions

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

 Activity Location County: Craven Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Heating for New GPW and MHE Maintenance Facility

#### - Activity Description:

Heating for new GPW and MHE maintenance facility (381,126 square feet total). Heat was assumed to be required following the construction period, or January 2030.

#### - Activity Start Date

Start Month:1Start Year:2030

#### - Activity End Date

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

#### - Activity Emissions:

Pollutant	<b>Emissions Per Year (TONs)</b>
VOC	0.099719
SO <sub>x</sub>	0.010878
NO <sub>x</sub>	1.813071
CO	1.522979
PM 10	0.137793

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.137793
Pb	0.000000
NH <sub>3</sub>	0.000000
CO <sub>2</sub> e	2182.8

# 3.2 Heating Assumptions

### - Heating

**Heating Calculation Type:** 

Heat Energy Requirement Method

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

 Heat Energy Requirement Method Area of floorspace to be heated (ft<sup>2</sup>): Type of fuel: Type of boiler/furnace: Heat Value (MMBtu/ft<sup>3</sup>): Energy Intensity (MMBtu/ft<sup>2</sup>):

381126 Natural Gas Industrial (10 - 250 MMBtu/hr) 0.00105 0.0999

- Default Settings Used: Yes
- Boiler/Furnace Usage Operating Time Per Year (hours): 900 (default)

#### 3.3 Heating Emission Factor(s)

#### - Heating Emission Factors (lb/1000000 scf)

VOC	SOx	NOx	CO	PM 10	PM 2.5	Pb	NH3	CO <sub>2</sub> e
5.5	0.6	100	84	7.6	7.6			120390

#### 3.4 Heating Formula(s)

# - Heating Fuel Consumption ft<sup>3</sup> per Year

FC<sub>HER</sub>= HA \* EI / HV / 1000000

FC<sub>HER</sub>: Fuel Consumption for Heat Energy Requirement Method HA: Area of floorspace to be heated (ft<sup>2</sup>)
EI: Energy Intensity Requirement (MMBtu/ft<sup>2</sup>)
HV: Heat Value (MMBTU/ft<sup>3</sup>)
10000000: Conversion Factor

#### - Heating Emissions per Year

 $HE_{POL} = FC * EF_{POL} / 2000$ 

HE<sub>POL</sub>: Heating Emission Emissions (TONs) FC: Fuel Consumption EF<sub>POL</sub>: Emission Factor for Pollutant 2000: Conversion Factor pounds to tons

# 4. Emergency Generator

# 4.1 General Information & Timeline Assumptions

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

 Activity Location County: Craven Regulatory Area(s): NOT IN A REGULATORY AREA

#### - Activity Title: Emergency Generator for Controlled Humidity Equipment

#### - Activity Description:

An emergecny generator would be installed at the GPW to support controlled humidty equipment only. It was assumed the emergency generator would be operational following the construction period, or January 2030.

# - Activity Start Date

-		
Start	Month:	1

Start Year: 2030

# - Activity End Date

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

#### - Activity Emissions:

Pollutant	<b>Emissions Per Year (TONs)</b>
VOC	0.005650
SO <sub>x</sub>	0.004759
NO <sub>x</sub>	0.023288
CO	0.015552
PM 10	0.005083

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.005083
Pb	0.000000
NH <sub>3</sub>	0.000000
CO <sub>2</sub> e	2.7

# 4.2 Emergency Generator Assumptions

- Emergency Generator
   Type of Fuel used in Emergency Generator: Diesel
   Number of Emergency Generators: 1
- Default Settings Used: Yes
- Emergency Generators Consumption
   Emergency Generator's Horsepower: 135 (default)
   Average Operating Hours Per Year (hours): 30 (default)

# 4.3 Emergency Generator Emission Factor(s)

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

VOC	SOx	NOx	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>	CO <sub>2</sub> e
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251			1.33

# 4.4 Emergency Generator Formula(s)

#### - Emergency Generator Emissions per Year AE<sub>POL</sub>= (NGEN \* HP \* OT \* EF<sub>POL</sub>) / 2000

AE<sub>POL</sub>: Activity Emissions (TONs per Year) NGEN: Number of Emergency Generators HP: Emergency Generator's Horsepower (hp) OT: Average Operating Hours Per Year (hours) EF<sub>POL</sub>: Emission Factor for Pollutant (lb/hp-hr)