Environmental Assessment
DRAFT-FINAL

Environmental Assessment
Military Construction of U.S. Army Reserve Facilities
Wright-Patterson Air Force Base, Ohio

USACE Contract: W912QR-16-D-0008

Delivery Order: W912QR19F0114

Prepared for:

U.S. Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King, Jr. Place,
Louisville, Kentucky 40202

DRAFT-FINAL – Revision 00; November 2020

CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW
COMPLETION OF INDEPENDENT TECHNICAL REVIEW

Aptim Federal Services, LLC (APTIM) has completed the **DRAFT-FINAL Environmental Assessment (EA) for Military Construction (MILCON) of U.S. Army Reserve (USAR) Facilities**. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing Corps policy.

W. H. Scoville — November 11, 2020

William H. Scoville, PE, PMP, Aptim Federal Services, LLC — Date
Independent Technical Review Team Leader

Significant concerns and the explanation of the resolution are as follows: None identified.

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

All concerns resulting from independent technical review of the project have been fully resolved.

Cynthia A. Hassan — November 11, 2020

Cynthia A. Hassan, Aptim Federal Services, LLC — Date
Project Manager

FINDING OF NO SIGNIFICANT IMPACT
MILITARY CONSTRUCTION OF U.S. ARMY RESERVE FACILITIES
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

Pursuant to the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA), 40 Code of Federal Regulations (CFR) Sections (§§)1500 - 1508, U.S. Army (USAR) regulation 32 CFR Part 651, and U.S. Air Force (USAF) regulation 32 CFR Part 989, an environmental assessment (EA) has been prepared analyzing impacts associated with implementation of the USAR military construction (MILCON) at Wright-Patterson Air Force Base (WPAFB, the Base), Ohio.

A Joint Agency Assistance Memorandum was signed in April 2019 between USAR/88th Readiness Division (RD) and Air Force Materiel Command for the relocation of USAR 88th RD to WPAFB. The USAR would consolidate and relocate operations from multiple undersized facilities in the Dayton region to WPAFB to meet their units' training readiness needs. In turn, WPAFB would provide land to build facilities and support services to meet USAR's mission requirements. For this EA, USAR is the proponent for this action while the USAF is the primary lead agency. This EA is a joint agency effort between the USAR and USAF since ultimately this document must meet both agencies' NEPA regulations. This EA is attached and incorporated by reference into this finding per 40 CFR §1508.13.

Purpose and Need (EA §§1.2 and 1.5, page 1-5) - The purpose of the Proposed Action is to correct inadequate training space and overcrowded conditions currently experienced by USAR Soldiers at the Dayton LaPointe and Troy Memorial facilities and to provide dedicated maintenance space for Area Maintenance Support Activity (AMSA) #58. Consolidating the two undersized, aging, and severely over-utilized buildings into one facility in the Dayton area is needed to meet anti-terrorism force protection (ATFP) standoff requirements and training needs of the USAR Reserve units assigned to these two U.S. Army Reserve Centers (USARCs).

Selection Standards (EA §2.2, pages 2-1 to 2-2) - The following selection standards were used by the USAR and USAF to determine reasonable alternatives for construction of a new facility on federally-owned land:

- USARC Facility must be located at an active military base (e.g., Army fort, Air Force base, etc.), or other federal/state government controlled property to comply with Department of Defense's UFC 4-010-01, *Minimum Antiterrorism Standards for Buildings* dated February 9, 2012 and Army Regulation 140-483, *Army Reserve Land and Facilities Management, 5-6, Acquisition Priorities*.

- Land availability within the greater Dayton area; standard travel for USAR full time staff is a 50-mile circumference.

- Minimum of 15 acres to accommodate combined facility requirement for 14,062 square yard (sy) of military equipment parking (MEP); 5,525 sy of privately-owned vehicle (POV) parking for reservists; 16,128 square feet (sf) AMSA; 43,255 sf USARC; 2,279 sf unheated storage building; and 5,000 sy of roads.

- Access to utilities/existing infrastructure to support the AMSA/Vehicle Maintenance Shop (VMS) mission. Public utilities of the proper capacity should be available at the property line or reasonably close (Army Regulation 140-438, Section 4-7(a), Site Selection Criteria).

- Minimize footprint in Huffman Dam retarding basin. While the proposed project is located within the retarding basin, it is not located within the 100-year floodplain.

- Compatible land use for munitions/weapons storage.

Seven alternatives were initially considered with Alternatives 2 through 7 eliminated for not meeting at least one of the requirements above (EA Table 2-1, pages 2-3 to 2-4, for a detailed screening of each alternative against the selection standards). Only the Proposed Action of constructing the USARC at WPAFB met all selection standards; therefore, this action along with the No Action were carried forward for further evaluation.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action (EA §2.4.1. pages 2-5 to 2-9) – The Proposed Action would be located on a 15-acre parcel, which currently consists of open space, grass-covered lawn with sparse spruce trees. A commercial truck inspection facility (F/11465) formerly existed on the northeastern portion of the 15-acre parcel and a vacant outbuilding formerly existed adjacent and west of F/11465. Until recently, commercial trucks had been inspected at this facility before entering onto WPAFB through the base perimeter fence at Gate 16A. The relocation of the commercial truck inspection function associated with WPAFB's Gate 16A was analyzed within the *Environmental Impact Statement for Entry Control Reconfiguration and Base Perimeter Fence Relocation in Area A* with a Record of Decision signed on June 21, 2012. As of November 18, 2019, commercial vehicle inspections are now performed at the new inspection facility at Gate 26A. Gate 16A remains open to the Twin Base Golf Course, Skeet Range, Prairie, and Huffman Prairie Flying Field. F/11465 and the vacant outbuilding were demolished in the spring of 2020.

Under the Proposed Action, three structures would be constructed on the 15-acre parcel under two separate phases and fiscal years (FY), described below:

Phase I – FY 2021

A 16,128 sf collocated AMSA and VMS facility would be constructed. The AMSA and VMS facility would accommodate four USAR Reserve units and mechanics from AMSA #58. The facility would be constructed to the modified Tactical Equipment Maintenance Facility standard design consisting of 32 ft x 96 ft drive-thru work bays, work bay safety aisles, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard USAR tool set trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. The AMSA and VMS facility would also provide concrete aprons, vehicle wash rack/platform(s), a bi-level equipment loading ramp, and adequate parking space for military and POVs. Upon project completion, the USAR would return a currently permitted bay space at the Springfield Field Maintenance Shop (FMS) back to the Ohio Army Reserve National Guard (OHARNG). This lease with the OHARNG was only meant to be temporary until USAR could locate permanent facilities for AMSA #58. Upon completion of Phase I, the permitted bay space at the FMS would be returned to the OHARNG under a separate project from this EA.

Phase II – FY 2024

A 46,000 sf USARC training facility and 2,500 sf unheated storage facility would be constructed on the same WPAFB site as AMSA/VMS. This phase would consolidate two aging and severely over-utilized USARCs (LaPointe and Troy Memorial) into a new facility that would be compliant with ATFP standoff requirements and would meet training needs of assigned units. No demolition of USAR structures would occur as part of the Proposed Action and, upon completion of Phase II, LaPointe and Troy Memorial would be properly disposed under a separate project. In addition, temporary trailers would be installed on the MILCON project site for interim use by USAR administrative and training personnel, as needed. The purpose would be to house USAR personnel during the transition from Phase I to Phase II construction completion. These trailers would be removed from the MILCON project site upon completion of Phase II.

Operations/Training

Once operational, AMSA would provide maintenance support to the USAR units around the Dayton metropolitan area. The vehicle and equipment maintenance includes a wide range of activities such as changing tires, changing fluids, repairing engines, and repairing vehicle electrical components. The USAR training facilities would perform administrative, classroom, maintenance, and convoy/driver training.

No Action Alternative (EA §2.4.2, page 2.9) - Under the No Action alternative, the USAR MILCON would not occur and the units stationed at LaPointe and Troy Memorial would continue to train within inadequate facilities, outdated communication systems, and insufficient space to support their mission requirements. The LaPointe USARC facility would continue to experience traffic and transportation issues as the facility is accessed and situated approximately 600 ft north of a busy intersection making it extremely difficult for units to enter or exit the site with military vehicles and equipment (e.g. fuel tankers). The unit stationed at Troy Memorial would continue training within insufficient space and AMSA #58 would continue to occupy space in Springfield, Ohio for as long as permitted by the OHARNG. Lack of a USAR-dedicated maintenance

facility would continue to have a negative impact on AMSA's ability to meet its mission. The No Action Alternative provides a baseline against which environmental impacts of the Proposed Action are compared.

ENVIRONMENTAL CONSEQUENCES

Based on the findings within the EA, it was determined implementation of the Proposed Action would have no effect on airspace, land use, viewshed, and environmental justice (EA §3.1.3, pages 3-4 to 3-5). The proposed MILCON does not result in any obstruction and/or hazards to existing airspace. Land Use, currently designated as commercial, would remain the same under the Proposed Action as well as the viewshed in a commercial setting. There are no populations of minority, low income and/or children within the siting location of the Proposed Action and all standard construction site safety procedures will be implemented per federal, state, and local regulations. As a result, none of these resources were evaluated further in the EA. Resources carried forward included noise, air quality, water, biological, earth, hazardous materials/waste, cultural, infrastructure/utilities, safety and occupational health, and socioeconomics.

Noise (EA §3.2, pages 3-9 to 3-10) - The Proposed Action would result in minor, short-term impacts on ambient noise generated during construction of USAR facilities. Impacts would be minor since construction will be carried out during normal working hours. Personnel at distances 500 ft or greater from the proposed project site would not incur any significant or noticeable noise impacts from site activities. Operational noise from truck traffic at the USAR facility would be expected to be less than the vehicle noise currently experienced from the former truck inspection facility at Gate 16A. Overall, there will be no significant and/or cumulative impact from noise with implementation of the Proposed Action. The No Action alternative would have no short- or long-term impacts because there would be no change in noise sources over baseline conditions.

Air Quality (EA §3.3, pages 3-15 to 20) - The U.S. Environmental Protection Agency (EPA) has classified the metropolitan Dayton region in which WPAFB falls under as attainment for all criteria air pollutants, except ozone, which is designated as maintenance. Minor, short-term construction-related emissions from particulate matter and engine exhaust will occur under the Proposed Action. Additional, volatile organic compound emissions will result from vehicle operation and maintenance activities during operations. An Air Conformity Applicability Model Report assisted with evaluating impacts to air quality and determined emissions were below de minimis thresholds; therefore, conformity determination is not required (EA Table 3-4, page 3-19). Construction-related emissions will be short in duration and negligible with respect to overall conditions for the region. No long-term significant or cumulative impacts to air quality would be expected as a result of the Proposed Action. The No Action alternative would have no short- or long-term impacts because there is no change in air emissions over baseline conditions.

Water Resources (EA §3.4, pages 3-26 to 3-32) - The project site is not located within the city of Dayton Source Water Protection Program (SWPP) boundary and there are no surface water features identified on this flat, grassy area. A stream, identified as SC1D, is located adjacent and east of the MILCON property boundary. Majority of runoff to SCID is from off-base property runoff. Standard construction best management practices (BMPs) will be implemented to protect water resources during excavation activities. These BMPs include erosion/sedimentation controls, erection of silt fencing, and adherence to WPAFB's *Hazardous Waste Management Plan* and *Spill Prevention, Control, and Countermeasures (SPCC) Plan*. The project will also comply with the Energy Independence and Security Act 438 to return the project construction site to pre-construction hydrology. A General Storm Water Permit for Construction Activities (National Pollutant Discharge Elimination System permit) will be obtained prior to disturbance of soil since the proposed site is greater than one acre. Long-term impacts to surface water would be expected due to the increase in impervious surfaces from the new facilities. These impacts will be addressed by designing control measures such as ditches, swales, and/or detention/retention ponds to facilitate the flow of surface water across the MILCON project site. When the final design is available, the USAF will review expected storm water retention and discharge plans and stored petroleum, oil, and lubricants (POL) chemical quantities to reassess if closer ground water monitoring needs to be initiated. In addition, impacts from fuel or oil spills are not be expected because there will be no fuel storage on site and fuel tank trucks will be stored "dry".

The Proposed Action is not sited within a floodplain; however, the Miami Conservancy District (MCD) was consulted since the project site falls within the Huffman Dam retention basin and subject to the following MCD rights reserved in Deed Book 129, Page 146 recorded in Greene County on December 16, 1922. The letter indicated buildings proposed for construction at an elevation of 820 ft or below are not consistent with MCD rights defined in the deed.

- The right to back waters of the Mad River over property to elevation 835 ft by the action of Huffman Dam.

- The right to remove all structures situated below elevation 825 ft.

- No new structures may be erected below elevation 830 ft except by written permission from MCD.

- All structures erected or maintained below elevation 835 ft are at the risk of the owner.

The USAF submitted a Retarding Basin Permit Application to MCD on August 8, 2019 and met with the MCD representatives Board of Directors on September 9, 2019 and September 18, 2019 to discuss the application and project details (i.e., facility sizes, alternatives considered, construction timing). During this meeting, the MCD expressed concerns regarding construction of facilities in the retarding basin and potential life safety issues that may arise. Elevation data for the proposed MILCON site indicated areas on the east and west ends are at elevations of +824 ft. The center and north areas of the site are at lower elevations of +820 ft. The USAF met with U.S. Army Corps of Engineers (USACE) and USAR to discuss MCD's concerns and developed the following mitigations:

- Proposed facilities will be constructed at the east and west sides of the property with appropriate setback to meet ATFP requirements. Soil from within the site will be utilized to raise areas where facility construction would take place at an elevation of 825 ft or higher. Additional material may be needed to adequately build up the foundations of the proposed facilities. Any additional material utilized for the USAR facilities will be offset by the negative 10,000 cubic yards removed from the National Air and Space Intelligence Center (NASIC) project site, located approximately ¾-mile away, within the retarding basin. As a result, no additional material will be added to the retarding basin.

- Parking lots will be constructed at lower areas of elevation and ramps/stairs will be designed as needed for access into the facilities.

- Reducing overall facility footprint will be considered during design. For example, the feasibility of going beyond a one-story building will depend on functionality of space and budget to ensure compliance with the American Disabilities Act.

- A Flood Response Plan will be in place and include the WPAFB Installation Emergency Management Plan. In part, flood response will require monitoring of river elevation, notification of personnel, removal of assets, and the evacuation of personnel.

Retarding Basin Permit No. 20-3649-1, Revision No. 3 was signed on October 5, 2020. Among the terms, conditions, and restrictions listed in the Permit are final plan approval and rights of inspection for MCD. In addition, WPAFB will conform with the requirements regarding use of Non-Habitable Structures. A copy of the signed Permit is provided in Appendix B of the EA.

Cumulative impacts to water resources from construction activities associated with the action, the NASIC Complex Renovation and Primary Runway Pavement Replacement projects would have short-term, minor, impacts on groundwater and surface water resources due to potential runoff from construction sites. For each site, impacts from runoff are minimized by using BMPs. Once completed, cumulative increases in impervious surfaces from these projects would be considered a minor contribution in the context of the whole watershed.

The No Action alternative would have no short- or long-term impacts because there would be no change in erosion/sedimentation or in groundwater or surface water quality over baseline conditions. In addition, under the No Action alternative, there would be no short- or long-term impacts on the floodplains because there would be no construction at the proposed site and no need to offset net gain or loss of soil in the retarding basin over baseline conditions.

Biological Resources (EA §3.5, pages 3-37 to 3-39) - The Proposed Action will result in minor short-term impacts to vegetation from land clearing activities. Any trees removed as part of construction will be replaced with two trees planted at a location selected in coordination with the WPAFB Natural Resources Program Manager. There are no threatened or endangered species within and/or in close proximity to the Proposed Action nor are there any wetlands located in the area. Cumulative impacts from all construction activities occurring at WPAFB would not adversely affect biological resources because construction and/or renovation projects are located within areas on Base that involve previously developed and/or disturbed areas.

The Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) were consulted regarding the Proposed Action in the summer of 2019. The ODNR Natural Heritage Database stated the following species are within a one-mile radius of the project area and provided the following comments:

- BMPs be utilized to minimize erosion and sedimentation.

- Project is within the vicinity of the Indiana bat, a federally and state endangered species. If suitable habitat occurs within the project area and trees must be cut, ODNR recommends cutting occur between October 1 and March 31. If no tree removal is proposed, this project is not likely to impact this species.

- Project is within the range of the clubshell, rayed bean, and snuffbox (state endangered and federally engendered mussels); the black sandshell and the fawnsfoot (state threatened mussels); the tonguetied minnow (a state threatened fish); and the spotted turtle (state threatened species). Due to the location outside of a perennial stream and there is no in-water work proposed, this project is not likely to impact these species.

- Project is within the range of the Kirtland's snake (state threatened species). This secretive species prefers wet fields and meadows. Based on the project location, this type of habitat is not found within the project site and not likely to impact this species.

- Project is within the range of the eastern massasauga snake (federally threatened and state endangered); however, due to the location, type of habitat at the project site, and work proposed, this project is not likely to impact this species.

- Project is within the range of the upland sandpiper (state endangered bird). If dry grasslands (i.e., seeded grasslands, grazed and ungrazed pasture, hayfields, and/or grassland) will be impacted, construction should be avoided in this habitat during this species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

- Project is within the range of the northern harrier (state endangered bird). Harriers hunt over grassland and often nest in loose colonies; the female builds a nest out of sticks on the ground, often on top of a mound. Construction should avoid this type of habitat during the species' nesting period of May 15 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

The USFWS responded indicating there are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the MILCON project area. Additionally, due to project type, size, and location, the USFWS does not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. However, consultation with the USFWS will be re-initiated to assess potential impacts should the project design change, or during the term of the action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered.

Earth Resources (EA §3.6, pages 3-41 to 3-42) - The Proposed Action will result in minor, short-term impacts to existing soils during construction activities; however, impacts will be minimized by implementing BMPs for erosion and sedimentation controls (e.g., silt fencing, straw bales). Cumulative impacts related to soil disturbing activities are not expected to exceed individual project boundaries and would not result in significant and/or cumulative impacts on earth resources because BMPs, erosion and sediment controls and other management measures will be implemented. All disturbed surfaces will then be either paved or restored with vegetative cover once construction is completed. No long-term impacts are expected as a result of implementing the Proposed Action. The No Action alternative would have no short- or long-term impacts since there is no change in existing soils over baseline conditions.

Hazardous Materials/Waste (EA §3.7, pages 3-47 to 3-52) - The Proposed Action will result in negligible, short-term impacts to hazardous materials and/or wastes during construction. Quantities of hazardous materials/wastes generated would be negligible because quantities are not expected to increase over existing conditions and would cease upon project completion. It is anticipated the hazardous materials to be used during operations primarily consist of items needed for vehicle maintenance such as antifreeze, POLs, paints, cleaners, etc. Wastes generated by these activities would include used oil, used antifreeze, waste aerosols, used oil filters, universal waste batteries, and waste paints. The USAR will adhere to WPAFB's *Hazardous Waste Management Plan* and develop a Site-Specific Spill Plan. In addition, the expected number of fuel tank trucks

(approximately 27) to be staged at the site will be stored 'dry' and driven off WPAFB property to a mission site (i.e., Camp Atterbury, Fort McCoy) where the trucks are filled with fuel and used for training purposes. The fuel tank trucks would return to WPAFB 'dry' and staged until future use. No adverse impact to stored fuels is expected. Cumulative impacts from the Proposed Action when added to other projects will not impact the Base's hazardous waste management program since all hazardous materials and wastes will be managed in accordance with applicable Base, Ohio, and federal regulations.

While there are no operable units within the project site, Landfill 7 (LF7) is located 300 ft north of the site. A Rule 13 application for soil-disturbing activities must be submitted to the Ohio EPA prior to any soil-disturbing activities taking place near the landfill. In addition, soil disturbing BMPs will be implemented to include but not be limited silt and/or sediment fencing, rock check dams, temporary seeding, storm drain inlet protection, dust control, and sediment basins. These BMPs, combined with the Ohio EPA Rule 13 application, will provide avoidance measures for impacts to LF7. No long-term and/or cumulative impacts are expected as a result of implementing the Proposed Action.

The No Action alternative would have no short- or long-term impacts because there is no usage, generation, storage, or disposal of hazardous materials/waste at the proposed site. As there would be no soil-disturbing activities, there would be no changes to ERP sites. The No Action alternative would have no change in hazardous materials/waste over baseline conditions.

Cultural Resources (EA §3.8, pages 3-54 to 3-56) - No archaeological sites or National Register of Historic Places (NRHP)-eligible buildings are located in proximity to the proposed MILCON site. In the summer of 2019, the USAF initiated consultations with State Historic Preservation Office (SHPO) and the following Native American Tribes: Keweenaw Bay Indian Community, Sac and Fox of the Mississippi in Iowa, Seneca Cayuga Tribe of Oklahoma, Seneca Nation of Indians, and Saginaw Chippewa Indian Tribe. Copies of SHPO and Native American Tribal correspondence are included in Appendix B of the EA. The SHPO indicated the proposed project will have no adverse effect on historic properties at WPAFB and that no further coordination is necessary unless there is a change in the proposed project. According to the WPAFB Cultural Resources Manager, the Native American Tribes only request notification when an action involves ground disturbance in undisturbed area. No tribal responses have been received for this action and the WPAFB Cultural Resources Manager does not anticipate future responses. Construction activities associated with the Proposed Action along with any cumulative impacts from other projects at WPAFB will not have an effect on cultural resources. In the event of an unanticipated discovery of archaeological resources during any project at WPAFB, actions detailed in the ICRMP would be initiated to minimize impacts. The No Action alternative would have no short- or long-term impacts because there would be no ground disturbance.

Infrastructure/Utilities (EA §3.9, pages 3-59 to 3-60) - The Proposed Action will result in no adverse, short-term, or cumulative impacts to infrastructure or utilities because electric, natural gas, and stormwater utilities will be upgraded as part of the Proposed Action to accommodate for increases in expected usage required by USAR. Once operational, the Proposed Action will incur a *de minimis* increase to the overall installation's public services. With regard to transportation, traffic in the area of the proposed site would not come close to the traffic levels experienced at the former truck inspection facility. Therefore, the impact to the surrounding roadway network are expected to be less than before. There will be an overall beneficial impact on electrical consumption as newly constructed and energy efficient infrastructure will replace older, outdated systems. The No Action alternative would have no short- or long-term impacts to infrastructure/utilities over baseline conditions.

Safety and Occupational Health (EA §3.10, pages 3-63 to 3-64) - Workers at the construction site will adhere to federal, state, and local occupational safety and health regulations and standards. The construction site will be secured to prevent unauthorized personnel from entering. The Proposed Action includes a weapons and ammunition armory. The armory will be located within the AMSA, which must be secured in accordance with Army Regulation 190-11 *Physical Security of Arms, Ammunition, and Explosives*. Soldiers are required to requisition ammunition for weapons qualifying and training events from the armory. No long-term impacts are expected as a result of facility operations under the Proposed Action. Potential impacts due to workplace or training activities, vehicle operations, and weapons training or storage would be minimized by adherence to health and safety regulations and standards. There would be short-term cumulative impacts related to slips, falls, heat exposure, exposure to mechanical, electrical, vision, or chemical hazards; however, implementation of appropriate safety methods along with the issuance of personal protective equipment will minimize impacts to safety and occupation health. The No Action alternative would have no short- or long-term impacts because there would be no changes in the safety or occupational health of workers over baseline conditions.

Socioeconomics (EA §3.11, pages 3-66 to 3-67) - The Proposed Action will result in a short-term, negligible impact on the local workforce and a beneficial impact on the local economy from revenue generated during construction activities. The

Proposed Action will also have long-term, beneficial impacts to personnel working at the new USAR facilities. Beneficial cumulative impacts are expected from all basewide construction activities (i.e., NASIC Complex Renovation, Primary Runway Pavement Replacement, Repair Roads Basewide) since they provide a source requirement for labor, materials, and supplies. The No Action alternative would have no short- or long-term impacts because there would be no change in the local workforce or local economy over baseline conditions.

PUBLIC NOTICE

A public notice will be posted in the *Dayton Daily News* and the *Fairborn Daily Herald* initiating a 14-day public comment period. Comments received will be included in Appendix B of the EA.

MITIGATION AND MONITORING

As the proponent for this action, the USAR is responsible for ensuring mitigations and BMPs are fully funded, in place, and being carried out as identified above and referenced in the EA. A joint Mitigation and Monitoring Plan (MMP) will be prepared by the USAR and USAF within 90-days subsequent to signature of this document and include regulatory permitting requirements as they become available along with an anticipated mitigation schedule and completion date(s). The USAR and its contractors will adhere to all applicable permitting and BMPs in accordance with federal, state, and/or local regulatory requirements during installation and operation of the Proposed Action. The MMP is a living document and as such will be updated throughout the life of the project. It is expected mitigation monitoring will generally consist of adherence to permit requirements and on-the-ground inspections. The USAR and USAF will evaluate the effectiveness of these monitoring methods and revise as necessary to address deficiencies discovered during these inspections.

FINDING OF NO SIGNIFICANT IMPACT

Based on review of the facts and analysis summarized above and contained within the EA, the USAR finds the proposed decision to implement the USAR MILCON at WPAFB will not have a significant impact on the natural or human environment. The USAF finds the proposed decision to grant a support agreement to the USAR for implementation of their MILCON will not have a significant impact on the natural or human environment. An environmental impact statement is not required. This fulfills the analysis requirements of NEPA, the President's Council on Environmental Quality, USAR 32 CFR Part 651 and USAF 32 CFR Part 989.

_____ Date: _____

JAMES M. LEWIS
Colonel, U.S. Army
Director, Public Works
88th Readiness Division, U.S Army Reserve

_____ Date: _____

RONALD J. ONDERKO, P.E.
Command Senior Civil Engineer
Logistics, Civil Engineering and Force Protection
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COVER SHEET

ENVIRONMENTAL ASSESSMENT
MILITARY CONSTRUCTION OF U.S. ARMY RESERVE FACILITIES
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

Responsible Agency: U.S. Army Reserve (USAR)

Affected Location: Wright-Patterson Air Force Base (WPAFB), Ohio

Proposed Action: Military Construction of U.S. Army Reserve facilities at WPAFB.

Report Designation: Draft-Final Environmental Assessment (EA)

Written comments and inquiries regarding this document should be directed to 88 Air Base Wing (ABW)/Public Affairs, 5135 Pearson Road, Building 10, Room 252, WPAFB, Ohio, 45433, 88abw.pa@us.af.mil.

Abstract: USAR is proposing to construct three structures at WPAFB that would occur during two separate phases. Phase I would occur in Fiscal Year (FY) 2021 during which time an approximate 16,128 square foot (sf) facility would be constructed. Phase II would occur in FY 2024 during which time an approximate 46,000 sf training building and a 2,500 sf unheated storage building would be constructed. Construction of these facilities at WPAFB would enable USAR to correct inadequate training space and overcrowded conditions currently experienced by Soldiers at nearby regional facilities and would provide dedicated maintenance space for Army Reserve Area Maintenance Support Activity (AMSA). Analysis in the EA considers the Proposed Action and the No Action alternative and will aid in determining whether a Finding of No Significant Impact (FONSI) can be prepared or whether an Environmental Impact Statement (EIS) is needed.

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ABW	Air Base Wing
ACAM	Air Conformity Applicability Model
ACM	Asbestos-Containing Material
ACS	American Community Survey
AFB	Air Force Base
AF	Air Force
AFI	Air Force Instruction
AFMAN	Air Force Manual
AFMC	Air Force Materiel Command
AFPD	Air Force Policy Directive
AICUZ	Air Installation Compatible Use Zone
AIM	Architectural and Industrial Maintenance
AMSA	Area Maintenance Support Activity
APE	Area of Potential Effect
APTIM	Aptim Federal Services, LLC
APZ	Accident Potential Zone
AQCR	Air Quality Control Region
AR	Army Regulation
AST	Above-ground Storage Tank
ATFP	Anti-Terrorism/Force Protection
BASH	Bird/Wildlife Aircraft Strike Hazard
BHE	BHE Environmental, Inc.
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
BRAC	Base Realignment and Closure
C&DD	Construction & Demolition Debris
CAA	Clean Air Act
CDC	Child Development Center
CEG	Civil Engineer Group
CEIEC	Compliance Section of the Environmental Branch in the Installation Management Division
CEIEA	Environmental Assets Section of the Environmental Branch in the Installation Management Division
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CHP2	Central Heating Plant 2
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CRM	Cultural Resources Manager
CWA	Clean Water Act
CZ	Clear Zone
dB	Decibel
dBA	A-weighted Sound Level Measurement
DLSME	Defense Land Systems and Miscellaneous Equipment
DMWM	Division of Materials and Waste Management
DNL	Day-night A-weighted Sound Level
DoD	Department of Defense
DP&L	Dayton Power & Light
DRMO	Defense Reutilization Management Office
EA	Environmental Assessment
EBS	Environmental Baseline Survey
ECP	Entry Control Point
EIAP	Environmental Impact Analysis Process
EIFS	Economic Impact Forecast System
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EMR	Eastern Massasauga Rattlesnake
EMS CFT	Environmental Management System Cross Functional Team
EO	Executive Order
ERP	Environmental Restoration Program
ESA	Endangered Species Act
ESOHC	Environmental Safety and Occupational Health Council
ESQD	Explosive Safety Quantity Distance
ESZ	Explosive Safety Zone
°F	Degrees Fahrenheit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FIG	Facility Investment Guide
FMS	Field Maintenance Shop
FONSI	Finding of No Significant Impact
FRP	Facility Response Plan
ft	Feet
FY	Fiscal Year
FYDP	Future Years Defense Plan
GPM	Gallons Per Minute
GHG	Greenhouse Gas
GWOU	Groundwater Operable Unit
GWP	Global Warming Potential
HAP	Hazardous Air Pollutant
HMMP	Hazardous Material Management Program
HQ AFMC	Headquarters Air Force Materiel Command
HUD	U.S. Department of Housing and Urban Development
HVAC	Heating Ventilation and Air-conditioning
ICP	Integrated Contingency Plan
ICRMP	Integrated Cultural Resources Management Plan
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
INRMP	Integrated Natural Resources Management Plan
IRP	Installation Restoration Program
IT	Information Technology

ITRP	Installation Tribal Relations Plan
LAN	Local Area Network
LBP	Lead-based Paint
LF	Landfill
LTM	Long-term Monitoring
LRS	Logistics Readiness Division
MA	Metropolitan Area
MACT	Maximum Achievable Control Technology
µg/m^3	micrograms per cubic meter
MCAR	Military Construction Army Reserve
MCD	Miami Conservancy District
MEP	Military Equipment Parking
mg/m^3	milligram per cubic meter
MILCON	Military Construction
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NAOC	National Airborne Operations Center
NASIC	National Air and Space Intelligence Center
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGS	National Geodetic Survey
NH_3	Ammonia
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NO_x	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
O_3	Ozone
OAC	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army Reserve National Guard
ORC	Ohio Revised Code
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
Pb	Lead
PBR	Permit-by-Rule
PCB	Polychlorinated Biphenyl
$PM_{2.5}$	Particulate Matter with an Aerodynamic Particle Size Less Than 2.5 Micrometers
PM_{10}	Particulate Matter with an Aerodynamic Particle Size Less Than 10 Micrometers
POL	Petroleum, Oil, Lubricants
POV	Privately-Owned Vehicle
ppb	parts per billion
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTI	Permit-to-Install
RACM	Reasonably Available Control Measure
RACT	Reasonably Available Control Technology
RAPCA	Regional Air Pollution Control Agency
RCRA	Resource Conservation and Recovery Act
RD	Readiness Division
RICE	Reciprocating Internal Combustion Engines
ROD	Record of Decision
SATS	Standard Army Tool Set
sf	Square Feet
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SOP	Standard Operating Procedure
SPC	Spill Prevention Coordinator
SPCC	Spill Prevention, Control, and Countermeasures
SSSP	Site-Specific Spill Plan
SWMP	Storm Water Management Plan
SWPP	Source Water Protection Program
SWPPP	Storm Water Pollution Prevention Plan
sy	Square Yard
TEMF	Tactical Equipment Maintenance Facility
TMDL	Total Maximum Daily Load
tpy	tons per year
TSCA	Toxic Substances Control Act
UEC	Unit Environmental Coordinator
UFC	Unified Facilities Criteria
UHS	Unheated Storage
USACE	U.S. Army Corps of Engineers
USAF	United States Air Force
USAR	U.S. Army Reserve
USARC	U.S. Army Reserve Center
USC	United States Code
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service
UST	Underground Storage Tank
VMS	Vehicle Maintenance Shop
VOC	Volatile Organic Compound
WPAFB	Wright-Patterson Air Force Base
WQPM	Water Quality Program Manager

1.0 Purpose and Need for Action

1.1 Introduction

This Environmental Assessment (EA) has been prepared for the U.S. Army Reserve (USAR) 88th Readiness Division (RD), as Co-Lead Agency in coordination with the U.S. Air Force (USAF) and under contract to the U.S. Army Corps of Engineers (USACE), to analyze potential environmental impacts of proposed military construction (MILCON) at Wright-Patterson Air Force Base (WPAFB) in Dayton, Ohio (**Figure 1-1**).

Army Reserve units are currently assigned to two U.S. Army Reserve Centers (USARCs) located in the greater Dayton, Ohio area (referred to as LaPointe USARC and Troy Memorial USARC [**Figure 1-2**]). These facilities are inadequate in size. As indicated in **Table 1-1**, the sizes of the existing facilities infrastructure components at LaPointe and Troy Memorial are less than the sizes required to adequately support the needs of USAR units. The construction project being proposed in the greater Dayton, Ohio area would provide the space and facilities needed for the units to adequately carry out their training operations, thereby preventing degradation of unit readiness.

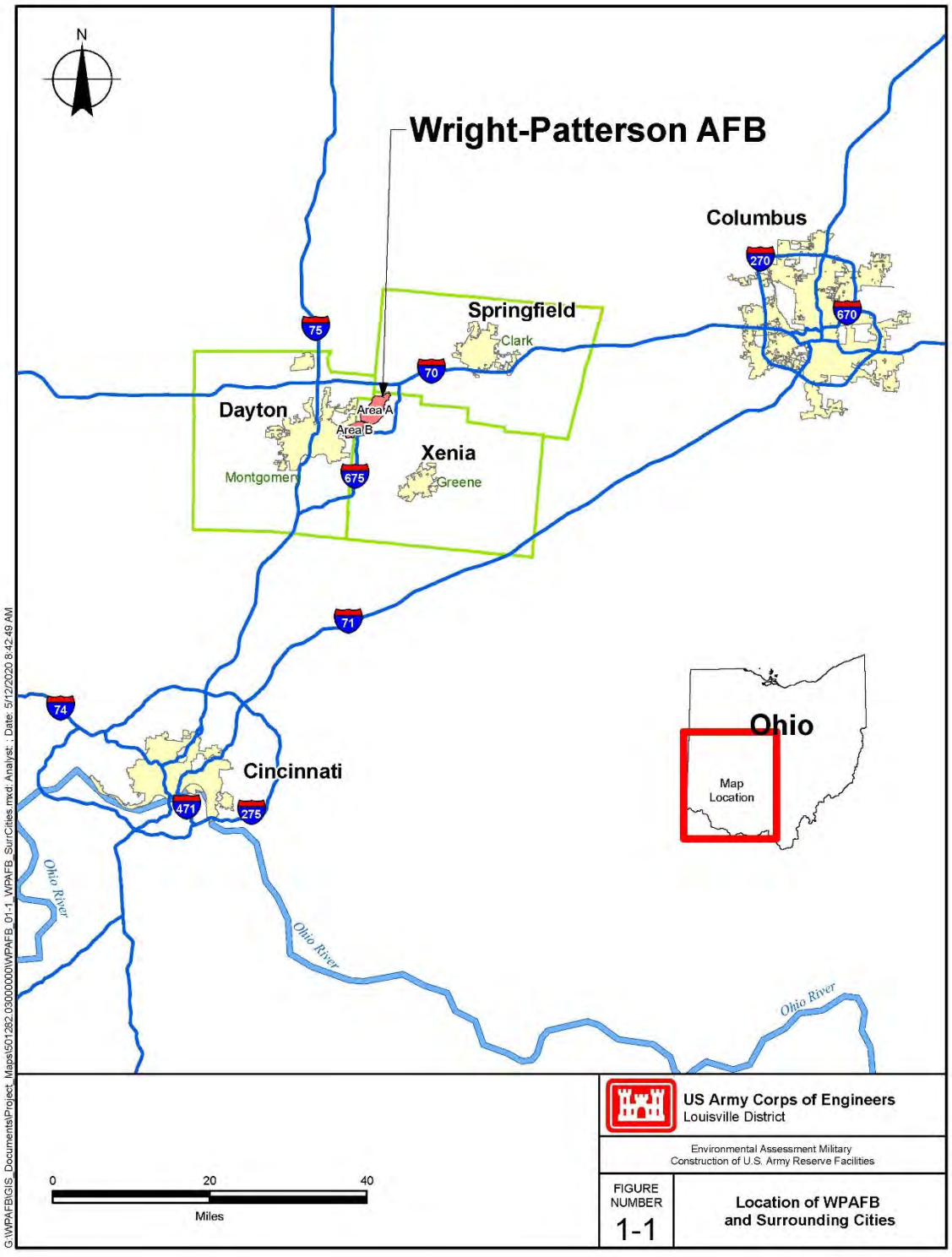
Table 1-1 Existing[1] and Required Sizes for Infrastructure Components of USARC Facilities

Infrastructure	Required Size (sf)	Existing Size (sf)
USARC / Training Building	46,000	19,576
AMSA / VMS	16,128	4,262
Unheated Storage (UHS) Building	2,500	1,920
Parking for Assigned Personnel	**Required Size (sy)**	**Existing Size (sy)**
Organizational Parking (POV)	5,525	3,712
Non-organizational Parking (MEP)	14,062	11,090

USARC = U.S. Army Reserve Center
AMSA / VMS = Area Maintenance Support Activity / Vehicle Maintenance Shop
UHS = Unheated Storage
sf = square feet
sy = square yards
POV = privately-owned vehicle
MEP = military equipment parking

USAR currently has a permit for use by AMSA #58 at a third facility in Springfield, Ohio, owned by the Ohio Army Reserve National Guard (OHARNG). The construction of a collocated Area Maintenance Support Activity (AMSA) and Vehicle Maintenance Shop (VMS) facility would also eliminate the need for this third facility in Springfield, Ohio, and provide specifically designed and dedicated maintenance space to meet USAR requirements.

1 Existing sizes include LaPointe and Troy Memorial USARC infrastructure combined; driver for required infrastructure sizes based on combined LaPointe, Troy Memorial, and OHARNG undersized maintenance facilities; Military Construction Army Reserve (MCAR) Form 88764P, Fiscal Year (FY) 2021, dated 03Jan2018 [MCAR 2018a].


N
Wright-Patterson AFB
Columbus
Springfield
Clark
Dayton
Area A
Area B
Xenia
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Cincinnati
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Ohio River
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75
70
675
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471
275
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Miles
US Army Corps of Engineers
Louisville District
Environmental Assessment Military Construction of U.S. Army Reserve Facilities
FIGURE NUMBER
1-1
Location of WPAFB and Surrounding Cities
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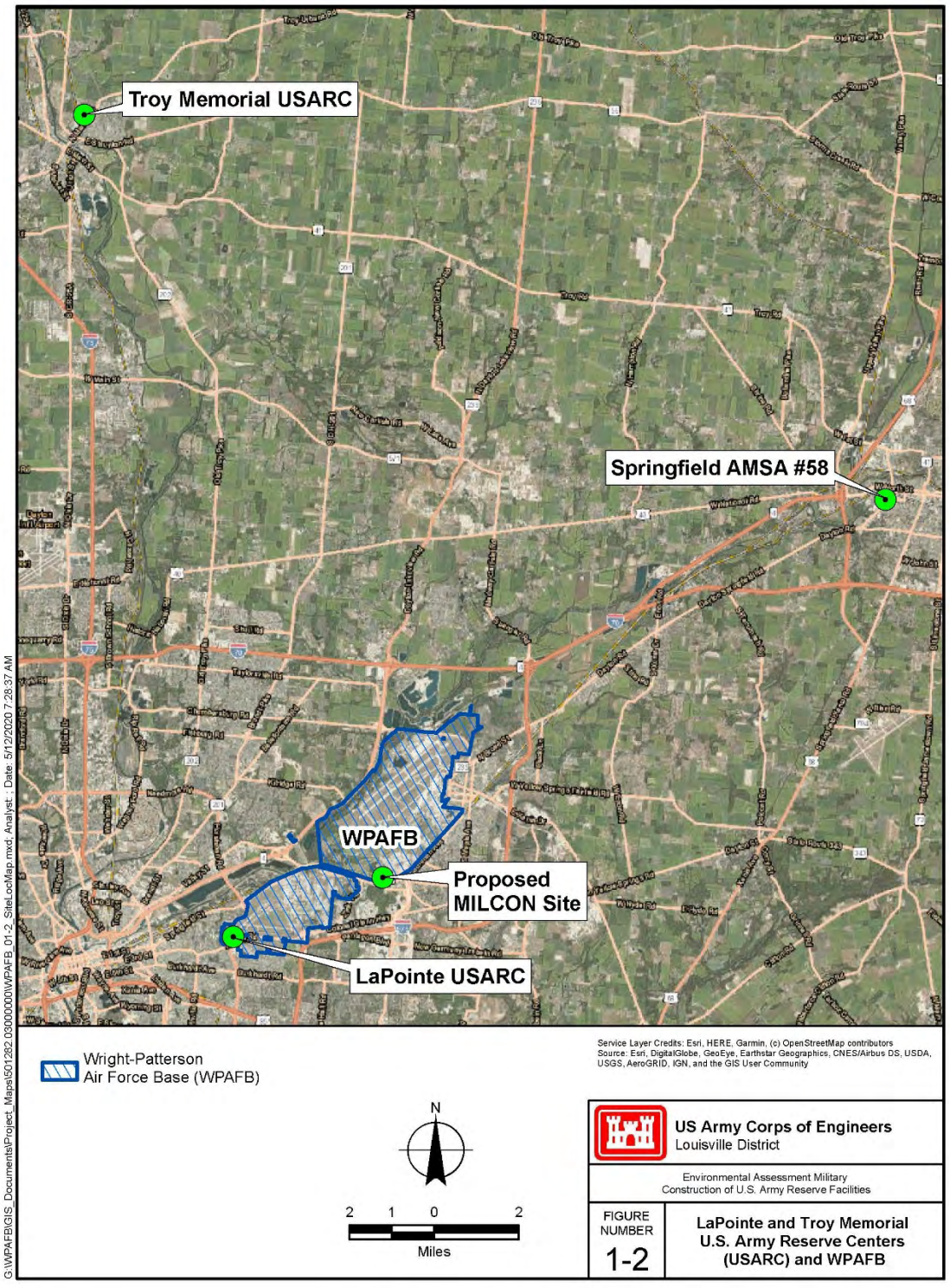
Troy Memorial USARC
Springfield AMSA #58
WPAFB
Proposed MILCON Site
LaPointe USARC
Wright-Patterson Air Force Base (WPAFB)
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
N
2 1 0 2
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US Army Corps of Engineers
Louisville District
Environmental Assessment Military Construction of U.S. Army Reserve Facilities
FIGURE NUMBER
1-2
LaPointe and Troy Memorial U.S. Army Reserve Centers (USARC) and WPAFB
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Implementation of the MILCON project at WPAFB would accommodate USAR's current mission and would correct deficiencies at both LaPointe and Troy Memorial USARC facilities as listed in **Table 1-2**.

Table 1-2 LaPointe and Troy Memorial USARC Deficiencies

Location	Year Constructed	Deficiency
LaPointe Dayton, OH	1975	Undersized 200 sf of arms vault space for sensitive equipment storage Undersized one classroom and one male/female shower stall for assigned units Undersized 1,200 sf of classroom space that is partly occupied by storage cage Undersized 200 sf of unit storage No voicemail system and inadequate number of local area network (LAN) drops because communication lines are antiquated and unreliable Undersized 3,000 sf of administrative space and ad-hoc office area has been created in mezzanine above the assembly hall that was originally a mechanical room POV parking lot is undersized because facility is located on a major arterial road; on-street parking is not possible and units park in grass on battle assembly weekends
Troy Memorial Troy, OH	1962	Classroom doubles as a physical readiness room and administrative area serves as an Information Technology (IT) closet and mail room; assembly hall serves as unit storage Deficient 1,500 sf of administrative space that is partly occupied by storage cages No arms vault on site

Background Data

The proposed project would consolidate the activities of regional units that are currently based in three locations within approximately 20 miles of each other (**Figure 1-1**). The rationale for having three facilities in relatively close proximity was a remnant of a by-gone era where the Army Reserve had facilities in many small towns. With the advent of affordable private transportation, it became no longer necessary to have a Center in every small town as Soldiers could drive from one town to another for battle assembly.

The LaPointe USARC is located at the perimeter of WPAFB and is host to three Army tenants: 705th Transportation Company (POL Transportation Co), the 521st Transportation Detachment, and Det 4, 3100th Strategic Intelligence Group. The mission of the 705th is to provide transportation for the movement of bulk petroleum products by motor transport.

The mission of Det 4, 3100th SIG is to conduct ongoing Mission Command, research, collection, and analysis operations to provide Intelligence Support to Force Generation, Support to Situational Understanding, and Intelligence Support to Targeting in support of the Directorate for Analysis (DI), Defense Intelligence Agency (DIA) operational and strategic intelligence requirements. There is no full-

time staff. On order, Det 4, 3100th SIG provides trained and ready Soldiers in support of operational and strategic intelligence requirements to Combatant Commanders and the National Intelligence Community.

The only unit currently in operation at the Troy Memorial ARC is the 342nd MP Detachment. Present and recent activities conducted at the Lapointe and Troy facilities include administrative operations, classroom training, dry storage of equipment, and vehicle maintenance.

The mission of AMSA #58 is to provide maintenance support to the Army Reserve units within the surrounding region. Essentially, they perform the equipment maintenance that the units do not have the expertise to do themselves. AMSA #58 was re-located to the Springfield area in BRAC05. The re-location was done out of necessity as BRAC was closing its existing facility and not replacing it. The OHARNG offered the use of one of their Field Maintenance Shop (FMS) maintenance bays until USAR could build a new AMSA.

1.2 Purpose of the Action

The purpose of the Proposed Action is to correct inadequate training space and overcrowded conditions currently experienced by Soldiers at the Dayton LaPointe USARC and Troy Memorial USARC facilities and to provide dedicated maintenance space for AMSA #58.

1.3 Need for the Action

The need for the Proposed Action is driven by the lack of adequate supply and equipment storage; lack of dedicated maintenance space; inadequate Soldier training features; and outdated administrative spaces in aging facilities that do not meet current mission requirements. Insufficient facilities adversely impact unit training, readiness, and morale. Relocating the Soldier training and maintenance activities into a consolidated and upgraded facility would increase training efficiency and capabilities, reduce travel time, and reduce costs to maintain buildings that are beyond their life cycle or to lease buildings with adequate space.

The National Environmental Policy Act (NEPA) is a federal law requiring the analysis of potential environmental impacts associated with proposed federal actions prior to taking them. The intent of NEPA is to make informed decisions based on the identification of potential environmental consequences and take appropriate actions to protect, restore, or enhance the environment. NEPA established the President's Council of Environmental Quality (CEQ), which is responsible for ensuring federal agency compliance with NEPA as outlined in 40 Code of Federal Regulations (CFR) §§ 1500-1508, *Regulations for Implementing the Procedural Provisions of NEPA*. CEQ mandated all federal agencies use a prescribed approach to NEPA. To meet this mandate, the Air Force (AF) codified its NEPA procedure at 32 CFR Part 989, *Environmental Impact Analysis Process (EIAP)* and the Army codified theirs at 32 CFR Part 651, *Environmental Analysis of Army Actions*.

Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, states the AF will comply with applicable federal, state, and local environmental laws and regulations, including NEPA. If significant impacts are expected under NEPA, the AF would decide whether to conduct mitigation to reduce impacts below the level of significance, prepare an environmental impact statement (EIS), or abandon the Proposed Action. The EA will be used to guide the Army and AF in implementing the Proposed Action in a manner consistent with Army and AF standards for environmental stewardship should the Proposed Action be approved. Other applicable regulatory regulations relevant to NEPA and resources assessed in this EA include, but are not limited to, the following:

- National Environmental Policy Act (NEPA) Title 42, U.S. Code (USC), Section 4321 et seq. (1969)
- Title 32 CFR Part 651, Environmental Analysis of Army Actions
- Title 32 CFR Part 989 USAF EIAP regulation
- Executive Order (EO) 11988, *Floodplain Management*, May 24, 1977
- EO 11990, *Protection of Wetlands*, May 24, 1977
- EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, February 11, 1994
- EO 13045, P*rotection of Children from Environmental Health Risks,* April 21, 1997
- EO 13175, *Consultation and Coordination with Indian Tribal Governments,* November 6, 2000
- EO 12372, *Intergovernmental Review of Federal Program,* July 14, 1982
- Department of Defense (DoD) Instruction 4715.9, *Environmental Planning and Analysis*, May 3, 1996
- Air Force Instruction (AFI) 32-7064, *Integrated Natural Resources Management*, September 17, 2004
- AFI 32-7065, *Cultural Resources Management Program,* June 1, 2004
- Noise Control Act (Title 42, USC, Section 4901 et seq.)
- Clean Air Act (Title 42, USC, Section 7401 et seq.)
- Clean Water Act (Title 33, USC, Sections 1251 et seq.)
- National Historic Preservation Act (Title 54, USC, Section 300101 et seq.)
- Archaeological Resources Protection Act (Title 16, USC, Section 470)
- Endangered Species Act (Title 16, USC, Section 1531 et seq.)

- Resource Conservation and Recovery Act (Title 42, USC, Section 6901 et seq.)

1.4 Objectives of the EA

The objectives of this EA are as follows:

- Provide sufficient evidence and analysis for determining whether to prepare a Finding of No Significant Impact (FONSI).

- Aid in USAR's and AF's compliance with NEPA when an EIS is not necessary and facilitate preparation of an EIS when necessary.

1.5 Cooperating Agency and Intergovernmental Coordination / Consultations

The NEPA requirements help ensure environmental information is made available to the public during the decision-making process and prior to an action's implementation. The Intergovernmental Coordination Act and EO 12372, *Intergovernmental Review of Federal Programs*, requires federal agencies to cooperate with and consider territorial and local views when implementing a federal proposal.

As mandated by 40 CFR 1501.4(b), "The agency shall involve environmental agencies, applicants, and the public, to the extent possible, in preparing assessments required by Section 1508.9(a)(1)", USAR and AF's undertaking this EA, and public involvement is required as part of the analysis process. For this EA, public involvement includes notifying local, state, and federal agencies, elected officials, and the public about the Proposed Action and alternatives; soliciting agency and public comments on the EA analysis, and ultimately informing the public of USAR and AF conclusions and findings.

1.5.1 Joint Agency

A Joint Agency Assistance Memorandum was signed in April 2019 between USAR/88th RD and Air Force Materiel Command (AFMC)/A4C/WPAFB for the bed down of USAR 88th RD at WPAFB. The USAR would consolidate operations from multiple undersized facilities in the Dayton region to relocate to WPAFB to meet their units' training readiness needs. In turn, WPAFB would provide land to build facilities and support services through an outgrant to meet USAR's mission requirements. For this EA, USAR is the proponent for this action. The USAF is the primary lead agency. Both agencies would be required to adhere to NEPA and any recommendations and/or mitigations documented in this EA. Therefore, because this is a joint agency effort, this EA would ultimately meet NEPA responsibilities for both agencies (AF and Army).

1.5.2 Government-to-Government Consultations

The purpose of EO 13175, *Consultation with Indian Tribal Governments*, is to enhance communication and coordination between federally recognized Indian tribes. EO 13175 recognizes the right of Indian tribes to self-government and supports tribal sovereignty and self-determination. Among other things, it requires that agencies have an accountable process to ensure meaningful and timely input by tribal

officials in developing policies that have tribal implications. In November 2009, President Obama reaffirmed the government-to-government relationship between the Federal Government and Indian tribal governments in a White House memorandum that acknowledged that Indian tribes exercise inherent sovereign powers over their members and territory.

1.5.3 Interagency and Intergovernmental Coordination and Consultations

In compliance with NEPA, WPAFB notified relevant stakeholders about the Proposed Action. Intergovernmental consultation was conducted with the following agencies: Miami Conservancy District (MCD), Ohio Department of Natural Resources (ODNR), U.S. Fish and Wildlife Service (USFWS), and State Historic Preservation Office (SHPO). The notification process provided these stakeholders with the opportunity to cooperate with WPAFB and to provide comments regarding the Proposed Action. Coordination with these agencies is presented in **Appendix B** of the EA.

1.6 Public and Agency Review of EA

A Notice of Availability (NOA) for the Draft EA and FONSI will be published once in each of two newspapers, *Dayton Daily News* and the *Fairborn Daily Herald,* initiating a 30-day public review period. The Draft EA and FONSI will be made available in the Greene County Public Library, Fairborn Branch. During this time, public comments may be received. The NOA and comments received will be included in **Appendix B** of the EA.

2.0 Description of the Proposed Action and Alternatives

2.1 Proposed Action

Under the Proposed Action, USAR would conduct a MILCON action in a phased approach during fiscal years (FY) 2021 and 2024. The USARC facility would accommodate Army Reservists and consolidate personnel and assets from three existing buildings: LaPointe in Dayton, Ohio, AMSA in Springfield, Ohio (17,410 total sf), and Troy Memorial in Troy, Ohio (4,476 total sf). Both phases of construction would collocate and merge existing personnel and assets into a newly-constructed U.S. Army Reserve Center with AMSA and VMS.

Phase I – FY 2021

Phase I includes construction of a collocated AMSA and VMS, which would provide a collocated facility for four Army Reserve units and for AMSA #58 (currently in Springfield, Ohio). No existing USAR buildings or structures would be demolished as part of the Proposed Action during this phase. No structures exist on the proposed WPAFB construction site with the exception of a mobile trailer.

Phase II – FY 2024

Phase II includes construction of a USARC training building and an unheated storage (UHS) building that would be constructed on the same site as the collocated AMSA and VMS building described above. No demolition of existing USAR structures would occur as part of the Proposed Action. Upon completion of Phase II, the LaPointe USARC and Troy Memorial USARC would be properly disposed under a separate project from the Proposed Action.

Additional details of each phase are described in Section 2.4.1.

Operations/Training

Once operational, AMSA would provide maintenance support to USAR units around the Dayton metropolitan area. The vehicle and equipment maintenance performed includes a wide range of activities such as changing tires, changing fluids, repairing engines, and repairing vehicle electrical components. The training to be performed at the USAR facilities would be administrative training, classroom training, maintenance training, and convoy and driver training.

2.2 Selection Standards

The Army and AF considered a range of alternatives for the Proposed Action. A reasonable alternative is defined in 32 CFR §989.8(b) as one that meets the underlying purpose and need for the proposed action and that would cause a reasonable person to inquire further before choosing a particular course of action. Reasonable alternatives are not limited to those directly within the power of the Army or AF to implement and may involve another government agency or military service to assist in the project or even to become the lead agency.

The following selection standards were used to determine whether or not alternatives were considered reasonable for the construction of a new facility on federally-owned land. In evaluating alternatives, the 88th RD considered whether each alternative met the following standards:

- Army Reserve Center Facility must be located at an active military base (e.g. Army fort, Air Force base, etc.), or other federal/state government controlled property to comply with DoD's UFC 4-010-01, *Minimum Antiterrorism Standards for Buildings* dated February 9, 2012 (USACE, 2012) and Army Regulation 140-483, *Army Reserve Land and Facilities Management, 5-6, Acquisition Priorities*.

- Land availability within the greater Dayton, Ohio area; 50-mile circumference is defined as the USAR standard for travel for full time staff.

- Minimum of 15 acres of land to accommodate combined facility requirement for 14,062 sy of military equipment parking (MEP); 5,525 sy of privately-owned vehicle (POV) parking for reservists; 16,128 sf AMSA; 43,255 sf Army Reserve Center; 2,279 sf unheated storage building; and 5,000 sy of roads.

- Access to utilities/existing infrastructure to support the AMSA/VMS mission. Public utilities of the proper capacity should be available at the property line or reasonably close as stated in Army Regulation 140-438, Section 4-7(a), Site Selection Criteria.

- Minimize footprint in Huffman Dam retarding basin. While the proposed project is located within the retarding basin, it is not located within the 100-year floodplain.

- Compatible land use for munitions/weapons storage.

2.3 Screening of Alternatives

Development of reasonable alternatives involved discussions with representatives of the 88th RD. To identify alternatives, the 88th RD followed the USAR policy as stated in the Army's Facility Investment Guide (FIG). The FIG states that, if there is existing government-owned land in the proposed project radius, that land becomes the primary alternative for military construction. The Army has determined it is important to avoid land acquisition costs when an existing government-owned alternative that meets mission requirements is available.

The facility requirements described above in Section 2.2 were screened against the selection standards. In addition, using the selection standards based on USAR's underlying purpose and need, several alternatives were considered initially but were eliminated from consideration early in the planning process (MCAR 2018b). **Table 2-1** presents a detailed screening of alternatives considered against each selection standard. The alternatives included:

- Proposed Action – new construction at the proposed site near the location of the former truck inspection facility at Gate 16A

- New Construction/Renovation at LaPointe USARC

Table 2-1 Detailed Screening of Alternatives Against Selection Standards

Selection Standard	Proposed Action	New Construction/Renovation at LaPointe	New Construction/Renovation at Troy Memorial	New Construction at WPAFB	Lease	Other Facilities at WPAFB; As-Is, Renovation, or Renovation / New Construction Mix	Other DoD or Federal Agency Facilities
Compliant with UFC 4-010-01	The proposed site at WPAFB meets the selection standard for compliance with UFC 4-010-01, *Minimum Antiterrorism Standards for Buildings*, because it is an active military base and would only require minor reconfiguration of the existing perimeter fence (i.e., add chain-link fence, install access-controlled gates, install removable and/or permanent bollards to create standoff, establish security protocols) to be in compliance with ATFP standards.	LaPointe does not meet the selection standard because the existing LaPointe footprint would not be large enough to meet the Department of Army standards for ATFP requirements. The only adjacent land available is U.S. Air Force-owned property to the north and east, which would impose height restrictions on new building construction due to the proximity of the WPAFB airfield. New construction or renovations involving buildings or structures would be subject to UFC 3-260-01 and Federal Aviation Regulations, Part 77. WPAFB's airfield located north and east.	Troy Memorial does not meet the selection standard because the existing facility footprint would not be large enough to meet the Department of Army standards for ATFP requirements. In addition, the facility is located in an area surrounded by commercial and residential properties.	New construction at select areas at WPAFB (Schuster Road near F/30247, Talbott Road east of Hospital, Redbud Lane southwest of Hospital, and site adjacent to Kittyhawk steam plant) meets the selection standard for compliance with UFC 4-010-01. The former DRMO site on Kaufman Road is not located within the Base's secured perimeter fence.	A leased facility would need to readily comply with ATFP standards. Leasing a facility off-base or outside a secure perimeter fence in the Dayton, Ohio area does not meet the selection standard for compliance with UFC 4-010-01 or Department of Army ATFP standards because it fails priority one of Army Regulation 140-483, *Army Reserve Land and Facilities Management*, 5-6, *Acquisition priorities*: select and acquire sites for the construction of Army Reserve facilities according to the following priorities: (1) *Priority one – Army-controlled property or other Government-owned land*. No readily available facilities were identified within the 50-mile circumference search area of Dayton, Ohio.	No facilities were identified for screening. See the selection standards for land availability and facility requirements.	There were no other DoD or federal agency facilities available that already had ATFP standards in place. Therefore, no facilities were identified that meet the selection standard for compliance with UFC 4-010-01 and Department of Army standards for ATFP.
Land Availability	The proposed site at WPAFB meets the selection standard for land availability within the greater Dayton, Ohio area. The WPAFB property is within a 50-mile radius of the LaPointe and Troy Memorial USARC sites and meets USAR's definition for travel distance for full time staff. The proposed site is also readily available for construction.	LaPointe meets the selection standard for land availability within the greater Dayton, Ohio area. The LaPointe property is within a 50-mile radius of the Troy Memorial USARC, which meets USAR's definition for travel distance for full time staff. The facility is currently occupied by USAR personnel.	Troy Memorial meets the selection standard for land availability within the greater Dayton, Ohio area. The Troy property is within a 50-mile radius of the LaPointe USARC, which meets USAR's definition for travel distance for full time staff. The facility is currently occupied by USAR personnel.	New construction at select areas at WPAFB (referenced above) meets the selection standard for land availability within the greater Dayton, Ohio area. The WPAFB property is within a 50-mile radius of the LaPointe and Troy Memorial USARC sites and meets USAR's definition for travel distance for full time staff. Land at these sites is currently vacant; however, future development for these sites has already been planned. Talbott Road is the site of the proposed temporary lodging facilities/visiting quarters (TLF/VQs) and future Child Development Center; the Redbud Lane site has been designated for future mission expansion; the DRMO on Kaufman Road has been designated for relocation of recycling center operations and RV storage; and the property adjacent to Kittyhawk steam plant has been designated as the Kittyhawk Community Area Campus.	No facilities were identified for screening. See the selection standard for compliance with UFC 4-010-01 (ATFP requirements).	There is no vacant training building space located at WPAFB that is currently available to house a 300-unit mission. existing immediately available. Therefore, no other facilities at WPAFB were identified for screening.	There were no other DoD or federal agency facilities available that provided the required amount of space. Therefore, no facilities were identified for screening.

Selection Standard	Proposed Action	New Construction/Renovation at LaPointe	New Construction/Renovation at Troy Memorial	New Construction at WPAFB	Lease	Other Facilities at WPAFB; As-Is, Renovation, or Renovation / New Construction Mix	Other DoD or Federal Agency Facilities
Facility Requirement (Square Footage)	The proposed site at WPAFB meets the selection standard for square footage (minimum of 15 acres) to accommodate the combined facility requirement for construction of USAR's MEP, POV parking, AMSA, Army Reserve Center, unheated storage building, and ancillary roads.	The LaPointe property consists of 7 acres, which does not meet the selection standard for square footage (acreage) to accommodate the combined facility requirement for construction of a new USARC. The 88th RD determined it would not be able to be renovated to meet the required amount of space per Army Regulation 140-483, *Space Guidelines for Army Reserve Facilities.* New exterior building construction/renovation at LaPointe would not meet the selection standard for compliance with Department of Army ATFP requirements.	The Troy Memorial property consists of 4 acres, which does not meet the selection standard for square footage (acreage) to accommodate the combined facility requirement for construction of a new USARC.	All of the selected areas at WPAFB (referenced above) meet the selection standard for square footage (minimum of 15 acres) with the exception of the 7-acre site on Schuster Road near F/30247.	A leased facility would need to meet training needs. No facilities were identified for screening. See the selection standard for compliance with UFC 4-010-01 (ATFP requirements).	There is no vacant training building space located at WPAFB that is currently available to house a 300-unit mission and meet facility requirements. Therefore, no other facilities at WPAFB were identified for screening.	There were no other DoD or federal agency facilities available that provided 15 to 20 acres. Therefore, no facilities were identified for screening.
Access to Utilities/Existing Infrastructure	The proposed site at WPAFB meets the selection standard because of its proximity to areas with utility connections/existing infrastructure, such as the sites of the recently demolished F/11465. In addition, the Marine Corps Reserve Training Center (F/11440) is approximately 1,000 feet from the proposed site.	LaPointe meets the selection standard as the facility is currently in operation and tied into utilities/existing infrastructure.	Troy Memorial meets the selection standard because the facility is currently in operation and tied into utilities/existing infrastructure.	New construction at select areas at WPAFB (referenced above) meets the selection standard because all are located in well-developed areas of WPAFB with existing utilities and infrastructure.	A leased facility would need to provide infrastructure for the AMSA/VMS mission. No facilities were identified for screening. See the selection standard for compliance with UFC 4-010-01 (ATFP requirements).	No facilities were identified for screening. See the selection standards for land availability and facility requirements.	There were no other DoD or federal agency facilities available that provided the infrastructure to meet USAR's mission. Therefore, no facilities were identified for screening.
Minimize Footprint in Retarding Basin	The proposed site at WPAFB meets the selection standard for minimizing the footprint in the Huffman Dam retarding basin because the project location is not located with the 100-year floodplain.	LaPointe does not meet the selection standard for minimizing the footprint in the Huffman Dam retarding basin because the west portion of the LaPointe property is located within the 100-year floodplain and could potentially be impacted.	Troy Memorial meets the selection standard because it is outside of the footprint of the Huffman Dam retarding basin and 100-year floodplain due to its geographic location. In addition, this property is not within a 100-year floodplain at its location in Troy, Ohio.	New construction at the select areas at WPAFB (referenced above) meets the selection standard for minimizing the footprint in the Huffman Dam retarding basin. None of these areas are located within the retarding basin or 100-year floodplain.	No facilities were identified for screening. See the selection standard for compliance with UFC 4-010-01 (ATFP requirements).	No facilities were identified for screening. See the selection standards for land availability and facility requirements.	No facilities were identified for screening.
Compatible land use for munitions/weapons storage	The proposed site at WPAFB meets the selection standard. Munitions/weapons storage is permitted at this location with restrictions. The expected quantity of munitions to be stored at the proposed site is allowed by the WPAFB Weapons Safety Officer .	The LaPointe facility is currently used for munitions/weapons storage and assumed to be compatible; however, there are other land use restrictions due to proximity to the airfield and the Montgomery County Treatment Plant.	The Troy Memorial facility is currently used for munitions/weapons storage and assumed to be compatible.	New construction of the USARC on Schuster Road near F/30247, Talbott Road, Redbud Lane near the WPAFB Hospital, and the site adjacent to the Kittyhawk steam plant would not meet the selection standard because the storage of munitions and weapons is prohibited.	A leased facility would need to contain an arms vault for storage of munitions and weapons. No facilities were identified for screening. See the selection standard for compliance with UFC 4-010-01 (ATFP requirements).	No facilities were identified for screening. See the selection standards for land availability and facility requirements.	No facilities were identified for screening.

Meets selection standards.

Partially meets selection standards.

Does not meet selection standards and/or no facilities identified for screening.

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- New Construction/Renovation at Troy Memorial USARC
- New Construction at WPAFB - other locations
  - Schuster Road near F/30247
  - Talbott Road east of WPAFB Hospital
  - Redbud Lane southwest of WPAFB Hospital
  - Former Defense Reutilization Management Office (DRMO) site adjacent to Area B Heating Plant (F/20770)
  - Site adjacent to Kittyhawk Steam Plant
- Lease at Other Locations in the Dayton Area
- Other Facilities at WPAFB (As-Is, Renovation, or Renovation/New Construction Mix)
- Other DoD or Federal Facility Agencies

One alternative was not included in the screening process. New construction/renovation of the Springfield facility was not an option because the facility belongs to OHARNG. USAR was meant to be a short-term tenant and locating AMSA #58 at the Springfield facility was intended to be a temporary measure until USAR could build another facility. OHARNG has its own mission requirements and needs the space that USAR currently occupies.

As shown in **Table 2-1**, the Proposed Action of constructing the USARC at WPAFB was the one alternative that met the selection standards. Therefore, the Proposed Action and No Action were carried through the EA for full evaluations.

2.4 Detailed Description of the Alternatives

This section describes the Proposed Action and the No Action alternative.

2.4.1 Proposed Action

The Proposed Action consists of constructing three structures on a 15-acre parcel of land located at WPAFB in Dayton, Ohio. The proposed 15-acre parcel consists of a partially grass-covered lawn with sparse spruce trees. A commercial truck inspection facility (F/11465) formerly existed on the northeastern portion of the 15-acre parcel and a vacant outbuilding formerly existed adjacent and west of F/11465. Photographs of the proposed 15-acre site at WPAFB are presented in **Appendix A**. Neither of the buildings were connected to the proposed USARC by function or by timing. F/11465 was part of the truck inspection process at Gate 16A, which was relocated in November 2019. Once relocation was accomplished, F/11465 was no longer needed as a truck inspection facility. Furthermore, the outbuilding was no longer serving any particular purpose. The demolitions of these buildings were planned prior to site selection for the proposed USARC and were scheduled to occur before the proposed timeframe FY 2021 for Phase I of the USARC. The buildings on site were demolished in spring 2020.

The Proposed Action consists of two distinct phases of construction that are proposed for FY 2021 and 2024, as described below.

Phase I – FY 2021

A 16,128 sf collocated AMSA and VMS building would be constructed at WPAFB (**Figure 2-1**). The proposed AMSA and VMS facility would accommodate four Army Reserve units and mechanics from AMSA #58. The building would be constructed to the modified Tactical Equipment Maintenance Facility (TEMF) standard design consisting of 32 foot (ft) by 96 ft drive-thru work bays (comprised of six 16 ft by 32 ft work areas per bay), work bay safety aisle, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. The proposed AMSA and VMS facility would also provide concrete aprons, vehicle wash rack/platform(s), a bi-level equipment loading ramp and adequate parking space for military and POVs. Upon project completion, the permitted bay space at the Springfield FMS (currently permitted space) would be returned to the OHARNG.

The AMSA #58 currently occupies a bay at the OHARNG FMS in Springfield, Ohio. The Proposed Action would allow the return of the bay currently occupied by AMSA #58 back to the OHARNG as the current situation was only meant to be temporary until USAR could locate permanent facilities for AMSA #58. Upon project completion of Phase I, the permitted bay space at the FMS would be returned to the OHARNG. The USAR 88 RD would be responsible for ensuring NEPA compliance with the termination of agreements and real estate actions at the Springfield, Dayton, and Troy facilities.

Approximately 30 local contractors would be expected to perform Phase I construction from March through December 2021, 5 days per week.

Phase II – FY 2024

Phase II involves construction of a 46,000 sf USARC training building and 2,500 UHS building on the same 15-acre WPAFB site as the AMSA and VMS facilities as described above for FY 2021. Proposed buildings would be of permanent construction with reinforced concrete foundations; concrete floor slabs; reinforced concrete or masonry walls; low-slope or sloped roofs; heating, ventilation and air conditioning (HVAC); and plumbing, mechanical, security and electrical systems. Supporting facilities would include clearing, paving and general site improvements, and utility connections. Accessibility for disabled persons would also be provided. Proposed construction would be designed to a minimum life of 40 years in accordance with UFC 1-200-02, *High Performance and Sustainable Building Requirements*, including energy efficiencies, building envelope, and integrated building systems performance.

Anti-terrorism force protection (ATFP) and physical security measures would be incorporated into the design including maximum standoff distances from roads, parking areas, and vehicle unloading areas. Sustainability/energy measures would also be incorporated into the design of the buildings.


Proposed Site
Proposed Site
Wright-Patterson
Air Force Base (WPAFB)
WPAFB Fence
N
1,000 500 0 1,000
Feet
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
US Army Corps of Engineers
Louisville District
Environmental Assessment Military
Construction of U.S. Army Reserve Facilities
FIGURE NUMBER
2-1
Site Location Map
G:\WPAFB\GIS_Documents\Project_Maps\501282.03000000\WPAFB_02-1_SiteLoc.mxd; Analyst: ; Date: 5/12/2020 8:55:53 AM

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Approximately 40 local contractors would be expected to perform Phase II construction from March through December 2024, 5 days per week.

Until recently, commercial trucks were inspected in Facility 11465 (F/11465) before entering onto WPAFB through the base perimeter fence at Gate 16A, which is located adjacent and north of the former F/11465. The relocation of the commercial truck inspection function associated with WPAFB's Gate 16A was analyzed within the *Environmental Impact Statement for Entry Control Reconfiguration and Base Perimeter Fence Relocation in Area A* with a Record of Decision signed on June 21, 2012 (WPAFB 2012a). As of November 18, 2019, commercial truck inspection functions are now performed at the new inspection facility at Gate 26A. Gate 16A remains open to the Twin Base Golf Course, Skeet Range, Prairie, and Huffman Prairie Flying Field. The former commercial truck inspection facility (F/11465) at Gate 16A was demolished in spring 2020.

In addition to Phase I and II construction as described above, the installation of temporary trailers would be installed on the MILCON project site for interim use by administrative and training personnel, as needed. The purpose of these temporary trailers would be to house personnel and Soldiers during the transition from Phase I to Phase II construction completion. Upon completion of Phase II, the temporary trailers would be removed from the MILCON project site.

Operations/Training

The AMSA would provide maintenance support to USAR units around the Dayton metropolitan area. The maintenance to be performed would involve activities such as changing tires, changing fluids, repairing engines, and repairing electrical components. Essentially, any types of vehicle and equipment maintenance can be accomplished by the AMSA shop.

Training would also be conducted at the facility. The training would primarily consist of administrative training, classroom training, and vehicle maintenance training. Convoy and driver training might also be included.

The AMSA would abide by all Air Force rules and regulations as applicable to their operations. The design for the facility is in progress with the projected timeframe for completion of the 35% design in January 2020. Some components of the facility are known at this time. Natural gas would be provided for heating and an oil-water separator would be installed. It is not yet known whether an emergency generator would be included in the design. No fuel tanks or paint booths are expected to be installed.

During normal business hours Monday through Friday, AMSA mechanics and staff would have access to the MILCON project site through Gate 15A. However, this gate is closed on weekends. Therefore, USAR would negotiate weekends hours with WPAFB at this gate or another nearby gate in the vicinity of the MILCON project site for large Army Reserve trucks to enter the Base and gain access to the AMSA/VMS site once Phase I and Phase II have been completed.

2.4.2 No Action

The CEQ guidance requires inclusion of the No Action Alternative to assess environmental consequences that will occur if the Proposed Action is not implemented; therefore, this alternative is carried forward for detailed analysis in the EA. The No Action Alternative provides the environmental baseline. Under the No Action alternative, the new USAR facility would not be constructed and the units stationed at the LaPointe and Troy Memorial USARC would continue to train in facilities with inadequate training features, outdated communication systems, and insufficient space to support their mission requirements. Units hold multiple iterations of the same training session due to inadequate space. Lack of adequate administrative space exacerbated by the lack of adequate IT infrastructure results in Soldiers' inability to complete mandatory online training. The undersized Arms Rooms results in the units' inability to store sensitive items in a secure environment.

The LaPointe USARC facility would continue to experience traffic and transportation issues as the facility is accessed and situated approximately 600 feet north of a busy intersection in Dayton, Ohio. The location of the LaPointe facility makes it extremely difficult for the units to enter or exit the site with military equipment as the traffic flow is regularly heavy around the site. There is the potential for accidents and/or spills from tankers due to traffic conditions in the area. Extreme caution must be taken by the units when entering or exiting the site with either POVs and/or military vehicles (i.e., fuel tankers). In addition, LaPointe MEP lot continuing to be inadequate in size to accommodate 705th Transportation Company fuel tankers.

The unit stationed at Troy Memorial would continue to be located at a facility with insufficient training features and space. AMSA #58 would continue to occupy space (Springfield, Ohio) that was designed to be used by the OHARNG. Lack of a USAR-dedicated maintenance facility would continue to have a negative impact on the AMSA's ability to meet its mission.

2.5 Comparison of Environmental Consequences

The Proposed Action is the only reasonable alternative that meets the minimum requirements identified in Section 2.2. The CEQ regulations, however, require an analysis of the No Action alternative for all actions. **Table 2-2** presents a comparison of the potential environmental consequences resulting from implementation of the Proposed Action and the No Action. The information includes a concise definition of the issues addressed and the environmental impacts associated with each alternative. Short-term impacts primarily address construction and demolition. Long-term impacts are associated with the operations and training activities. The analysis is based on information discussed in detail in Section 4.0, Environmental Consequences of the EA.

Table 2-2 Comparison of Environmental Consequences

Affected Environment	Proposed Action	No Action
Noise	Short-Term: Minor impacts on ambient noise from construction activities. Impacts would be minor because activities would be carried out during normal working hours. Personnel at distances 500 ft or greater would not incur significant or noticeable impacts. Long-Term: No impact. Noise from truck traffic at the USAR facility would be expected to be less than the former truck inspection facility.	Short-Term: No impact because there would be no change in noise sources over baseline conditions. Long-Term: Same as Short-Term.
Air Quality	Short-Term: Construction-related air emissions generated at WPAFB as a result of particulate matter and engine exhaust emissions would be minor because emissions would be short in duration and are negligible with respect to overall emissions expected for the region. Dust control measures would be implemented during construction. Long-Term: No adverse impact. Projected vehicle emissions would be similar to current conditions	Short-Term: No impact because there would be no change in air emissions over baseline conditions. Long-Term: Same as Short-Term.
Water Resources Groundwater	Short-Term: No impact as the proposed construction site is not located within the city of Dayton Source Water Protection Program (SWPP) boundary; however, impacts would be minimized due to best management practices (BMPs) that would generally be implemented to protect water resources, such as erosion/sedimentation controls, adherence to hazardous water management plans and spill prevention, controls, and countermeasures plans. The final design would be reviewed with respect to storm water retention and discharge plans and storage petroleum, oil, and lubricants (POL) quantities to reassess if closer ground water monitoring would need to be initiated.	Short-Term: No impact there would be no change in groundwater quality over baseline conditions.
Surface Water	Long-Term: No impact. Short-Term: Adverse impact from surface water runoff during demolition and excavation activities. Impacts would be minor because BMPs for erosion and sedimentation controls would be implemented. Long-Term: Negligible impact due to increase in impervious surface area at the MILCON project site. Impacts would be minimized by addressing the increase in stormwater flow in the design of the new facility. Potential impacts due to fuel or oil spills are expected to be minimal because there would be no fuel storage on site and tank trucks would be stored “dry”. In addition, the USAR facility would be covered under WPAFB’s Spill Prevention Control and Countermeasures (SPCC) Plan. A Site-Specific Spill Plan (SSSP) would also be developed.	Long-Term: Same as Short-Term. Short-Term: No impact because there would be no sources of erosion or sedimentation and no change in surface water quality over baseline conditions. Long-Term: Same as Short-Term.

Affected Environment	Proposed Action	No Action
Floodplains	Short-Term: No impact because the proposed construction site is not located within a floodplain; the proposed site is located within a 500-year flood hazard area as established by the Federal Emergency Management Agency (FEMA), or Zone X, which is defined as an area with a moderate flood hazard having a 0.2 percent annual chance (or 500-year) flood. In addition, there would be no impact to the capacity of the retarding basin because no additional material used for the USAR facility would be offset. Long-Term: Negligible impacts. Potential property and safety issues would be minimized by the mitigations outlined in the Retarding Basin Permit.	Short-Term: No impact because there would be no construction at the proposed site and no need to offset net gain or loss of soil in the retarding basin over baseline conditions. Long-Term: Same as Short-Term.
Biological Resources Vegetation	Short-Term: Minor adverse impact because the majority of the proposed construction site is grass-covered with sparse spruce trees. It is likely the spruce trees would be removed from the project site in preparation of new construction. Long-Term: Negligible impacts. For every tree that is removed, two trees would be planted on the Base at a location selected in coordination with the WPAFB Natural Resources Program Manager.	Short-Term: No impact because the existing vegetation would not change over baseline conditions. Long-Term: Same as Short-Term.
Wildlife	Short-Term: Negligible impact on wildlife as the proposed construction site is not located in an area that provides suitable habitat; the current land use would not change; and proposed construction activities are not in close proximity to any threatened or endangered species to generate noise-related effects from proposed construction activities. Long-Term: No impact because the USAR facility would not be located in close proximity to any threatened or endangered species that would be affected by noise from facility activities.	Short-Term: No impact because there would be no change in wildlife habitat, land use, or sources of noise-related disturbances to threatened or endangered species over baseline conditions. Long-Term: Same as Short-Term.
Threatened and Endangered Species	Short-Term: Negligible impact on threatened and endangered species as the proposed construction site does not provide suitable habitat. USAR and AF would coordinate with the USFWS prior to removing trees. Long-Term: No impact. For every tree that is removed, two trees would be planted on the Base at a location selected in coordination with the WPAFB Natural Resources Program Manager.	Short-Term: No impact because there would be changes in threatened and endangered species habitat over baseline conditions. Long-Term: Same as Short-Term.
Wetlands/ Jurisdictional Waters	Short-Term: No impact as there are no wetlands on or near the proposed construction site. In addition, no perennial stream or in-water work is proposed. Impacts would be minimized through BMPs and compliance with the Energy Independence and Security Act (EISA). Long-Term: Same as Short-Term.	Short-Term: No impact. There would be no change because there are no wetlands on or near the proposed site. Long-Term: Same as Short-Term.

Affected Environment	Proposed Action	No Action
Earth Resources	Short-Term: Minor impact to existing soils during construction of USAR facility. Impacts would be minimized by implementing BMPs for erosion and sedimentation controls. Long-Term: No impact.	Short-Term: No impact because there would be no change in existing soil over baseline conditions. Long-Term: Same as Short-Term.
Hazardous Materials/Waste	Short-Term: Negligible impact because hazardous materials/waste used during construction activities would not be expected to increase over existing conditions. Long-Term: Negligible impact. No fuel would be stored on site and tank trucks would be stored "dry". Impacts would be minimized by adhering to WPAFB's Hazardous Waste Management Plan and SPCC Plan. A Site-Specific Spill Plan (SSSP) would also be developed.	Short-Term: No impact because there is no usage, generation, storage, or disposal in hazardous materials/waste at the proposed site. There would be no change in these materials over baseline conditions. Long-Term: Same as Short-Term.
ACM and LBP	Short-Term: No impact because an ACM survey was performed in the Gate 16A structure resulting in laboratory analytical negative for ACM; the buildings on the project site were demolished and removed from the site in spring 2020. Long-Term: No impact.	Short-Term: No impact. There would be no changes to ACM/LBP because neither of these materials has been identified at the proposed site. Long-Term: Same as Short-Term.
Environmental Restoration Program (ERP)	Short-term: No adverse impact because an application would be submitted to the Ohio Environmental Protection Agency (OEPA) prior to soil disturbing activities within 300 ft of the ERP site, landfill 7 (LF7). The application would be submitted to the OEPA prior to construction activities at the MILCON project site. Long-term: No impact.	Short-Term: No impact because there would be no changes due to soil-disturbing activities over baseline conditions. Long-term: Same as Short-Term.
Cultural Resources	Short-Term: No adverse impact because no archaeological sites or National Register of Historic Places (NRHP)-eligible buildings are located in proximity to the proposed construction site. Long-Term: Same as Short-Term.	Short-Term: No impact because there would be no ground disturbance. Furthermore, no NHRP-eligible buildings are present. Therefore, there would be no changes to cultural resources. Long-Term: Same as Short-Term.

Affected Environment	Proposed Action	No Action
Infrastructure / Utilities	Short-Term: No adverse impact. Electric, natural gas, and storm water utilities would be upgraded as part of the Proposed Action. No impacts to traffic would be expected because the truck inspection functions at Gate 16A have been permanently relocated to Gate 26A. Long-Term: Negligible impact. The project site would incur a *de minimis* increase to the overall installation's public services. Noise from truck traffic at the USAR facility would be expected to be less than the vehicle noise that had been experienced during the former truck inspection facility at Gate 16A.	Short-Term: No impact because there would be no changes to infrastructure or utilities over baseline conditions. Long-Term: Same as Short-Term.
Safety and Occupational Health	Short-Term: Potential impact to workers during construction activities. Impacts would be minimized by adherence to health and safety regulations and standards. Long-Term: Potential impacts due to workplace or training activities, vehicle operation, or weapons training/storage would be minimized by adherence to health and safety regulations and standards.	Short-Term: No impact because there would be no changes in the safety or occupational health of workers over baseline conditions. Long-Term: Same as Short-Term.
Socioeconomics	Short-Term: Negligible impact on local workforce and a beneficial impact on the local economy from revenue generated by construction activities. Long-Term: Beneficial impact to personnel working at the new USAR facility.	Short-Term: No impact because there would be no change in the local workforce or local economy over baseline conditions. Long-Term: Same as Short-Term.
Cumulative Impacts	When added to past, present, and reasonably foreseeable actions, the activities under the Proposed Action would have no significant adverse cumulative impacts on any resource.	When added to past, present, and reasonably foreseeable actions, the No Action alternative would have no significant adverse cumulative impacts on any resource.

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3.0 Affected Environment and Environmental Consequences

3.1 Scope of the Analysis

This section describes the current environmental and socioeconomic conditions most likely to be affected by the Proposed Action and provides a baseline from which to identify and evaluate environmental and socioeconomic changes likely to result from implementation of the Proposed Action.

In compliance with NEPA, CEQ regulations, and 32 CFR 989, the description of the affected environment focuses on resources and conditions potentially subject to impacts. These resources and conditions include air quality, noise, water resources, biological resources, earth resources, hazardous materials/waste, cultural resources, infrastructure/utilities, safety and occupational health, socioeconomics, and environmental justice.

This section also describes the potential environmental consequences associated with implementing the Proposed Action or the No Action alternative. Each alternative is evaluated for its potential to affect physical, biological, and socioeconomic resources in accordance with 40 CFR §1508.8. Potential impacts for each resource area are described in terms of their significance. Significant impacts are those that would result in substantial changes to the environment or socioeconomic resources (as defined by 40 CFR §1508.27) and should receive the greatest attention in the decision-making process.

In evaluating the context and intensity of impacts, consideration must be given to the degree to which the action might adversely or negatively affect the resource. Consideration must be given to whether an impact affects public health or safety and whether it affects areas having unique characteristics, such as historical or cultural resources, wetlands, or ecologically critical areas. In addition, consideration must be given to the degree to which the action might adversely affect animal or plant species listed as endangered or threatened or their habitat. The level of impacts would also depend on the degree of their being controversial or posing highly uncertain, unique, or unknown risks. Adverse impacts might be found where an action sets a precedent for future actions having adverse effects, as well as in cases involving cumulative impacts. Finally, in evaluating intensity, it must be determined as to whether an action violates a law or regulation imposed for the protection of the environment.

For this EA, thresholds of change for the intensity of impacts are defined as follows:

- *Negligible*, the impact is localized and not measurable or at the lowest level of detection;
- *Minor*, the impact is localized and slight but detectable;
- *Moderate*, the impact is readily apparent and appreciable;
- *Major*, the impact is severely adverse or highly noticeable and considered to be significant; or
- *Beneficial*, the impact is considered positive for the resource area.

It is noted that impacts may also be beneficial. The degree to which impacts are beneficial or positive for a resource are similar to the definitions of intensity listed above.

3.1.1 Resources Analyzed

Analysis of potential environmental effects focuses on resource areas that are appropriate for consideration in light of a proposed action. All resource areas were initially considered, but some were eliminated from detailed examination because they were determined to have no impact as a result of implementation of the Proposed Action.

3.1.2 Cumulative Effects Analysis

Increasing evidence suggests the most adverse environmental effects may result not from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions over time (CEQ 1997). CEQ regulations implementing NEPA require that cumulative impacts of a proposed action be assessed. A cumulative impact is defined as:

> *"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action. "Cumulative impacts can result from individually significant actions taking place over a period of time." (40 CFR § 1508.7)*

CEQ's guidance for considering cumulative effects states NEPA documents should compare cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant. The first step in assessing cumulative effects involves identifying and defining the scope of other actions and determining their interrelationship with the proposed action. Identifying and defining scope must consider whether other projects coincide with the location and timing of the proposed action. Past, present, and reasonably foreseeable future actions are examined, including military actions in the region as well as other federal and non-federal actions to determine if there is an interaction with the proposed action or alternative.

A cumulative effects analysis first considers whether an action would affect or be affected as a result from a Proposed Action. Second, an evaluation is determined whether a relationship would result in potentially additive impacts not identified when a Proposed Action is considered alone.

Cumulative effects result from special (geographic) and temporal (time) crowding of environmental perturbation. The effects of human activities will accumulate when a second perturbation occurs at a site before the ecosystem can fully rebound from the effect of the first perturbation (CEQ 1997). Cumulative effects may arise from single or multiple actions and may result in additive or interactive effects. Analyzing cumulative effects differs from the traditional approach to environmental impact assessment because it requires the analyst to expand the geographic boundaries and extend the timeframe to encompass additional effects on the resources, ecosystems, and human communities of concern.

As WPAFB is an active military installation that undergoes changes in missions and training requirements in response to defense policies, current threats, and tactical and technological advances, it

requires new construction, facility improvements, infrastructure upgrades, and maintenance and repairs on an on-going basis. In addition, tenant organizations occupy portions of the Base, conduct aircraft operations, and maintain select facilities. All these on-Base actions would continue to occur before, during, and after the Proposed Action would be implemented.

The AF has identified actions in the vicinity of the MILCON project area that are under consideration and in the planning stage. These actions are included in the cumulative effects analysis to the extent that details regarding such actions exist and the actions have a potential to interact with the Proposed Action outlined in this EA. **Table 3-1** presents potential future projects that have been identified in the MILCON project area:

Table 3-1 DoD Past, Present, and Reasonably Foreseeable Actions

Project Name	Description	Planned Year of Implementation	Resources Potentially Affected	Magnitude of Impact
Entry Control Point (ECP / gate) 15A Renovation	Add/alter ECP 15A in Area A.	FY 2021	Noise, Air Quality, Earth Resources, Occupational Health and Safety, Traffic/Transportation	Potential impact to traffic/transportation at ECP 15A, which is in the vicinity of the MILCON project area. However, access to the MILCON project site does not rely on entry through ECP 15A; access to the MILCON project site would still be accessible while ECP 15A is temporarily re-routed for renovation.
ECP 1A Renovation	Add/alter ECP 1A in Area A.	FY 2021	Noise, Air Quality, Earth Resource, Occupational Health and Safety, Traffic/Transportation	Potential impact to traffic/transportation in the vicinity of ECP 1A. However, ECP 1A is not located near the MILCON project site.
National Air and Space Intelligence (NASIC) Complex Renovation	Add/alter the existing NASIC Complex.	FY 2021	Noise, Water Quality, Occupational Health and Safety	Not significant because renovations would impact existing NASIC Complex footprint.
Primary Runway Pavement Replacement, EA	Provide long-term replacement of pavement for the existing primary runway and taxiways, enabling aircraft to continue to operate in a safe manner.	FY 2020 – 2023	Noise, Air Quality, Water Resources, Occupational Health and Safety, Hazardous Materials/Waste	Potential impact to overall air quality emissions.
Headquarters (HQ) AFMC	Repair/renovate HQ AFMC facility.	FY 2020 – 2023	Noise, Occupational Health and Safety	Not significant because repairs and renovations would impact existing AFMC facility footprint.
Repair Roads	Repair roads basewide	FY 2020 – 2023	Noise, Air Quality, Earth Resources, Occupational Safety and Health	Potential impacts to overall air quality emissions and temporary impacts to traffic/transportation.

Timeframes and budgets for proposed projects listed in **Table 3-1** can only be estimated or are uncertain. The additive or interactive cumulative effects of the Proposed Action, when considered together with the effects of other past, present, and reasonably foreseeable future actions in the WPAFB region, are presented in each resource category. Please note that only those resources that were identified in **Table 3-1** were carried forward for cumulative analysis. Other resource categories, analyzed for the Proposed Action, would not be cumulatively affected by these past, present, or reasonably foreseeable actions.

NEPA requires EAs include identification of any irreversible and irretrievable commitment of resources that would be involved in the implementation of the Proposed Action. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources could have on future generations. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that use of these resources would have on future generations. Irreversible effects primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable time frame (e.g., energy and minerals).

Environmental consequences as a result of the Proposed Action are considered short-term and temporary. Construction would require consumption of materials typically associated with construction (e.g., concrete, wiring, piping). The AF does not expect the amount of these materials used to significantly decrease the availability of the resources. Small amounts of nonrenewable resources would be used; however, these amounts would not be appreciable and are not expected to affect the availability of these resources. Irretrievable effects to vegetation/green space at the project site would occur as a result of construction of the USAR facilities and the last publicly visible constructible site inside the Base's perimeter immediately adjacent to and providing direct State highway access. However, there are other areas scattered throughout the Base that contain naturally-occurring vegetation and areas that previously contained structures that were demolished with those sites being turned into green space. Therefore, the irretrievable loss of vegetation/green space as a result of constructing the USAR facilities could be a retrievable resource elsewhere on the Base and is not a significant loss when compared to the overall green space existing at WPAFB. An irreplaceable resource consumed is the installation's last potential building site providing immediate access onto and from a state highway.

3.1.3 Resources Eliminated from Detailed Analysis

The following issues and concerns were determined to have limited potential for environmental impacts as a result of implementation of the Proposed Action and, therefore, were eliminated from further evaluation:

- *Airspace.* Proposed project activities would not result in any obstructions to airspace or hazards to airspace management at WPAFB. The most recent Air Installation Compatible Use Zone (AICUZ) study was reviewed that supports elimination of this resource from further evaluation and detailed analysis. Therefore, there would be no impacts to airspace.

- *Land Use*. Proposed project activities would not result in any overall changes to existing land use designations at WPAFB. WPAFB is divided into two sections, Areas A and B. Area A consists of military, family housing, administrative offices, maintenance facilities and an active airfield; Area B consists of research and development, and acquisition areas, with education functions. Current land use in the proposed project area is designated as commercial. Upon completion of the USAR facilities, vehicle maintenance and training activities would be compatible with commercial land use. Land use would also remain the same for the adjacent areas. In addition, it is noted that there are several areas in Area A that are designated as recreational land use. A portion of a golf course is located adjacent and west of the proposed project site. Other outdoor recreation in Area A primarily occurs near the lakes on Base; however, the lakes are located at distances greater than two miles from the proposed project site. The construction of the USAR facilities would not change the recreational land use at these locations. Additionally, the most recent AICUZ study noise contours were reviewed, which indicated land use compatibility in the proposed project area are within AF guidelines. Therefore, land use was eliminated as a resource from further evaluation and detailed analysis.

- *Visual Resources*. Construction of the USAR facilities would not adversely change the existing views in the general project area. For example, proposed USAR structures would appear visually similar to existing structures on WPAFB. Additionally, USAR would be sited within an industrial area of the Base and the addition of facilities would not change the overall visual aspect of this area of the Base. Views from adjacent properties would not be affected by project site construction. The east boundary of the property is lined with trees, which obstruct views from the Marine Reserve Forces facility. A golf course is located to the west and northwest of the proposed site. The golf course parking lots separate the club house and the road. Prior to demolition, the truck inspection facility (F/11465) was located across the road from the golf course. Therefore, the presence of trucks and truck traffic is common in this area.

- *Environmental Justice*. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* requires all federal agencies to address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations. EO 13045 *Protection of Children From Environmental Health Risks and Safety Risks*, directs each federal agency to ensure that its policies, programs, activities, and standards address disproportionate environmental health and safety risks to children. Construction associated with the Proposed Action would occur entirely on WPAFB premises. There would be no adverse impacts to any of the resource areas analyzed within this EA that would have the potential to impact human populations off-base. Standard construction site safety procedures would be followed to ensure children would not be exposed to increased health or safety risks during the construction period and the Proposed Action would result in no impacts to resource areas with the potential to expose children to increased health or safety risks. Therefore, there would be no disproportionate impacts to low income or minority populations nor would there be adverse impacts to children's health or safety as a result of the Proposed Action and Environmental Justice has been eliminated from detailed analysis in this EA.

3.2 Noise

3.2.1 Definition of the Resource

Noise is defined as an undesirable sound that interferes with communication, is intense enough to damage hearing, or is annoying. Human response to noise varies according to the source type, characteristics of the source, distance between source and receptor, receptor sensitivity, and time of day. Sound is measured

with instruments that record instantaneous sound levels in decibels (dB); decibels characterize sound levels sensed by the human ear. "A-weighted" decibels (dBA) incorporate an adjustment of the frequency content of a noise event to represent the way in which the average human ear responds to a noise event. Sound levels analyzed in this EA are A-weighted.

Noise Criteria and Regulations

Federal and local governments have established noise guidelines and regulations for the purpose of protecting citizens from potential hearing damage and from various other adverse physiological, psychological, and social effects associated with noise. Guidelines and regulations that are relevant to the project are described below.

The AF land use compatibility guidelines (relative to day-night A-weighted sound level [DNL] values) are documented in the *AICUZ Program Handbook* (USAF 1999). Five noise zones are used in AICUZ studies and described in DoD Instruction Number 4165.57 May, 2011 to identify noise impacts from aircraft operations. These noise zones range from DNL of 65 to 80 dBA and above. For example, it is recommended that no residential uses, such as homes, multifamily dwellings, dormitories, hotels, and mobile home parks, be located where the noise is expected to exceed a DNL of 65 dBA.

According to the AF, the Federal Aviation Administration (FAA), and U.S. Department of Housing and Urban Development (HUD) criteria, residential units and other noise-sensitive land uses are "clearly unacceptable" in areas where the noise exposure exceeds DNL of 75 dBA, "normally unacceptable" in regions exposed to noise between the DNL of 65 to 75 dBA, and "normally acceptable" in areas exposed to noise where the DNL is 65 dBA or less. The Federal Interagency Committee on Noise developed land-use compatibility guidelines for noise in terms of DNL (U.S. Department of Transportation [USDOT] 1980). The DNL is the metric used by the AF in determining noise impacts of military airfield operations for land use planning.

If sensitive structures are located in areas within a DNL of 65 to 75 dBA, noise-sensitive structures should be designed to achieve a DNL of 25 to 30 dBA interior noise reduction. Noise-sensitive structures might include schools, concert halls, hospitals, and nursing homes. Elevated noise levels in these structures can interfere with speech, causing annoyance or communication difficulties. Some commercial and industrial uses are considered acceptable where the noise level exceeds DNL of 65 dBA. For outdoor activities, the U.S. Environmental Protection Agency (USEPA) recommends DNL of 55 dBA as the sound level below which there is no reason to suspect that the general population would be at risk from any of the effects of noise (USEPA 1974).

The *2014 WPAFB AICUZ Resource Book* was reviewed for this EA (WPAFB 2014a). The AICUZ program is intended to reduce the potential for aircraft mishaps in populated areas. As a result of this program, WPAFB has altered basic flight patterns to avoid heavily populated areas. In addition, airfield safety zones were established under AICUZ to minimize the number of people who would be injured or

killed if an aircraft crashed. Three safety zones are designated at the end of all active runways: Clear Zone (CZ), Accident Potential Zone (APZ) I, and APZ II (**Figure 3-1**).

The CZ represents the most hazardous area. The APZs are outside of the CZ. The APZ I is located immediately beyond the CZ and has a high potential for accidents. The APZ II is immediately beyond APZ I and has measurable potential for accidents. While aircraft accident potential in APZs I and II does not necessarily warrant acquisition by the AF, land use planning and controls are strongly encouraged for the protection of the public. Compatible land uses are specified for these zones. According to AFI 32-7063, all new construction is required to comply with the AICUZ.

3.2.2 Affected Environment

Existing noise contours were analyzed using results from DoD-approved noise models in the vicinity of WPAFB. Operational data was collected in 2014 and entered into a computer noise model to calculate DNL based on the average annual day aircraft operations data shown in **Table 3-2**, which lists the number of airfield operations per year and per average annual day for the time period from April 2013 through March 2014.

Table 3-2 Airfield Operations at WPAFB

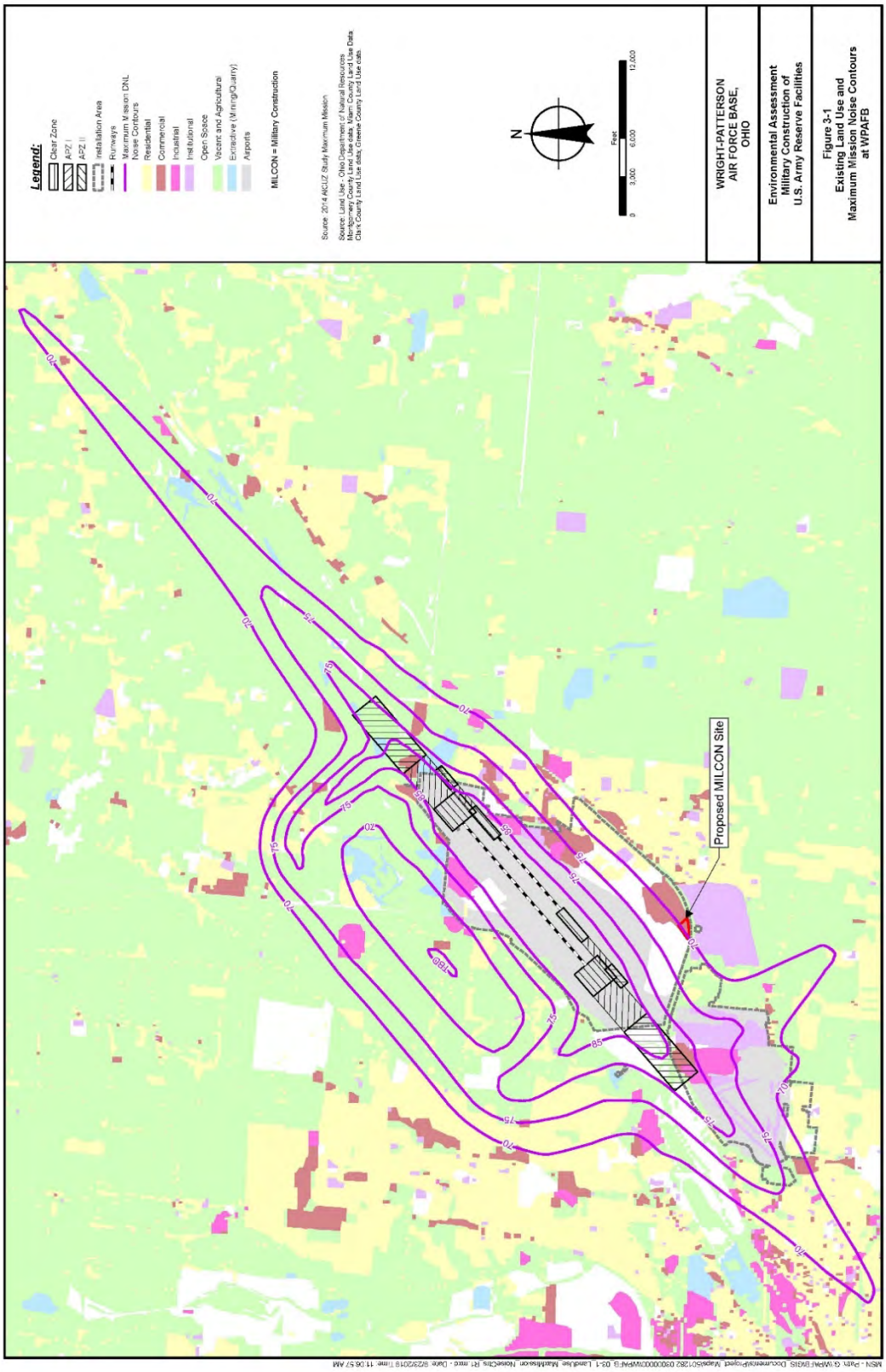
Squadron	Aircraft	Operations Per Year			Operations Per Average Annual Day		
		Day	Night	Total	Day	Night	Total
445th Airlift Wing	C-17	6,831	261	7,091	18.71	0.71	19.43
National Airborne Operations Center (NAOC)	E-4	98	7	105	0.27	0.02	0.29
Transient	Various	3,828	146	3,974	10.49	0.40	10.89
TOTAL		10,757	413	11,170	29.47	1.13	30.60

Source: WPAFB 2014a

An estimated 11,170 airfield operations were conducted during the AICUZ study period. Operations during the late-night period were relatively infrequent, with four percent of total aircraft operations occurring between 10:00 p.m. and 7:00 a.m. The majority of aircraft operations at WPAFB are conducted by C-17 aircraft assigned to the 445th Airlift Wing.

E-4 aircraft associated with the National Airborne Operations Center (NAOC) mission operate from WPAFB only part of the time, and their airfield operations make up a small fraction of total airfield operations conducted annually. Transient aircraft operations are quite common at WPAFB, making up approximately one third of total annual airfield operations (WPAFB 2014a).

NOISEMAP was used to calculate DNL based on the average annual day aircraft operations data shown in **Table 3-2**. Noise levels were plotted in 5-dB increments, ranging from 65 dB DNL to 80 dB DNL. **Figure 3-1** depicts the noise contours presented in the 2014 AICUZ Study (WPAFB 2014a).


Legend:
Clear Zone
APZ I
APZ II
Installation Area
Runways
Maximum Mission DNL Noise Contours
Residential
Commercial
Industrial
Institutional
Open Space
Vacant and Agricultural
Extractive (Mining/Quarry)
Airports
MILCON = Military Construction
Source: 2014 AICUZ Study Maximum Mission
Source: Land Use - Ohio Department of Natural Resources
Montgomery County Land Use data, Miami County Land Use Data
Clark County Land Use data, Greene County Land Use data.
N
Feet
0
3,000
6,000
12,000
WRIGHT-PATTERSON AIR FORCE BASE, OHIO
Environmental Assessment Military Construction of U.S. Army Reserve Facilities
Figure 3-1
Existing Land Use and Maximum Mission Noise Contours at WPAFB
Proposed MILCON Site
70
75
80
85

These contour values represent existing conditions to which the potential noise levels from construction of the USAR facilities can be compared. The proposed USAR facilities would be located just outside the 70 DNL contour lines (**Figure 3-1**).

Existing noise conditions at the MILCON project site consists of traffic noise from State Route 444, a four-lane highway, which exists adjacent and south of the project site, and from vehicles entering the Base at Gate 16A. Other noise-contributing factors in the general vicinity of the MILCON project site include airfield operations on the primary and secondary runways (**Figure 3-1**).

3.2.3 Environmental Consequences

Noise impact analyses typically evaluate potential changes to existing noise environments that would result from implementation of a proposed action. Potential changes in the noise environment can be beneficial (i.e., if they reduce the number of sensitive receptors exposed to unacceptable noise levels), negligible (i.e., if the total area exposed to unacceptable noise levels is essentially unchanged), or adverse (i.e., if they result in increased noise exposure to unacceptable noise levels).

3.2.3.1 Proposed Action

Implementation of the Proposed Action would have minor, temporary effects on the noise environment during the construction phase of the MILCON project. Noise impacts would be experienced by workers directly involved in demolition and construction activities and WPAFB personnel working in buildings near the construction site.

Noise impacts to construction workers would result from the use of construction equipment and trucks. Based on the estimated noise measurements for equipment discussed in this section and the sound level increases, persons at a distance of approximately 50 ft from the work area would potentially experience sound levels greater than 25 dB over the background level used in land use compatibility planning and environmental assessments (i.e., 65 dB). Therefore, minor short-term adverse impacts from noise in the construction work area would occur. Noise levels would be more intense in the immediate construction work area as a result of construction equipment (i.e., electric drill – 95 dB, power saw – 110 dB, chain saw/hammer on nail – 120 dB, jackhammer/power drill – 130 dB); however, effects would be minimized because workers would be responsible for adhering to health and safety regulations.

The nearest noise-sensitive structures to the proposed MILCON project site would be those adjacent to the construction site. Personnel in occupied buildings near the MILCON project site would experience short-term intermittent noise impacts; however, demolition and construction related noise would occur during normal working hours, would be temporary, short in duration, and comparatively minor.

Personnel at distances 500 ft or greater from the proposed project site would not incur any significant or noticeable noise impacts from site activities. No long-term adverse noise impacts would result from the

Proposed Action to either construction workers or personnel in the vicinity of the proposed MILCON project site.

Because the noise environment on Base and in the vicinity of WPAFB is dominated by military aircraft overflights, additional noise produced by construction activities would not affect sensitive receptors on or off the Base. The proposed MILCON project site is located in a noise zone less than 70 dB (**Figure 3-1**). Impacts on ambient noise levels from the construction site would result from activities involving construction equipment; however, no noise sensitive receptors are within close proximity of the construction site. Construction workers exposed to construction related noise would be subject to Occupational Safety and Health Administration (OSHA) standards for construction noise safety.

As discussed in Section 3.2.1, the AICUZ program is also intended to reduce the potential for aircraft mishaps in populated areas. All new construction must comply with AICUZ. The proposed location for the USAR facilities are outside of the CZ, APZ I, and APZ II (**Figure 3-1**).

A golf course clubhouse is located approximately 500 ft west of the proposed MILCON project site and the parking lot is located adjacent and west of the project site. Implementation of the Proposed Action would have minor, temporary effects on the noise environment during the construction phase of the MILCON project; noise impacts would be experienced by golfers and golf course personnel nearest the parking lot and clubhouse. Upon project completion and during USAR operations, vehicle maintenance operations would be performed inside the VMS facility and would not contribute to existing noise conditions. Noise from truck traffic at the USAR facility, however, would be expected to be less than the vehicle noise that had been experienced from the former truck inspection facility at Gate 16A.

3.2.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.2.2, would remain the same. The proposed site would remain vacant and there would be little activity on site other than occasional property maintenance, such as lawn maintenance. Therefore, there would be no short- or long-term impacts because there would be no change in noise sources over baseline conditions.

3.2.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative projects listed in **Table 3-1** would not cause long term or substantial increases in noise levels to the overall noise environment at WPAFB. Phase I of the proposed construction is projected for FY 2021, which is the same timeframe for the alteration of Gate 15A. In addition, the project site is also within approximately 1,500 ft of Gate 15A. Short term minor and insignificant noise impacts would be expected to occur from construction activities; however, no noise-producing activity or project has been identified that, when combined with the Proposed Action, would have greater than minor impacts on sensitive noise receptors. Phase II construction is projected for FY 2024. There are no projects listed for FY 2024 listed in **Table 3-1**.

3.3 Air Quality

3.3.1 Definition of the Resource

Air quality within a defined geographical region is most often determined by measuring the concentration of various pollutants in the atmosphere. The measured levels of pollutants found in ambient air are expressed in units of parts per million (ppm) or in micrograms per cubic meter ($\mu g/m^3$). Air quality in a region is affected not only by the types and quantities of atmospheric pollutants emitted by polluting sources in an area, but also by the surface topography forming air basins and the prevailing meteorological conditions. Some air pollutants may also be naturally occurring.

The federal Clean Air Act (CAA) directed the USEPA to develop, implement, and enforce strong environmental regulations that would ensure clean and healthy ambient air quality. The CAA authorized the USEPA to develop National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. The NAAQS are numerical concentration-based standards for pollutants that have been determined to impact human health and the environment. The USEPA currently enforce both primary and secondary NAAQS for six criteria air pollutants including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (coarse particulates equal to or less than 10 microns in diameter [PM_{10}] and fine particulates equal to or less than 2.5 microns in diameter [$PM_{2.5}$]), and lead (Pb).

The primary NAAQS represent maximum levels of background air pollution that are considered safe, with an adequate margin of safety to protect public health. Secondary NAAQS represent the maximum pollutant concentration necessary to protect vegetation, crops, and other public resources along with maintaining visibility standards for public welfare. **Table 3-3** presents the primary and secondary NAAQS.

Table 3-3 National Ambient Air Quality Standards

Pollutant	Standard Value [6]		Standard Type
Carbon Monoxide (CO)			
8-hour average	9 ppm	(10 mg/m^3)	Primary
1-hour average	35 ppm	(40 mg/m^3)	Primary
Nitrogen Dioxide (NO_2)			
Annual arithmetic mean	0.053 ppm	(100 $\mu g/m^3$)	Primary and Secondary
1-hour average[1]	0.100 ppm	(188 $\mu g/m^3$)	Primary
Ozone (O_3)			
8-hour average[2]	0.070 ppm	(137 $\mu g/m^3$)	Primary and Secondary
Lead (Pb)			
3-month average[3]		0.15 $\mu g/m^3$	Primary and Secondary
Particulate < 10 micrometers (PM_{10})			
24-hour average[4]		150 $\mu g/m^3$	Primary and Secondary
Particulate < 2.5 micrometers ($PM_{2.5}$)			
Annual arithmetic mean[4]		12 $\mu g/m^3$	Primary
Annual arithmetic mean[4]		15 $\mu g/m^3$	Secondary
24-hour average[4]		35 $\mu g/m^3$	Primary and Secondary
Sulfur Dioxide (SO_2)			

Pollutant	Standard Value [6]		Standard Type
1-hour average[5]	0.075 ppm	(196 µg/m³)	Primary
3-hour average[5]	0.50 ppm	(1,307 µg/m³)	Secondary

Notes:
1 In February 2010, USEPA established a new 1-hr standard at a level of 0.100 ppm, based on the 3-year average of the 98th percentile of the yearly distribution concentration, to supplement the existing annual standard.
2 Final rule signed October 1, 2015 and effective December 28, 2015. The previous (2008) O_3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O_3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards. In March 2008, the USEPA revised the level of the 8-hour standard to 0.075 ppm based on the 3-year average of the annual fourth-highest daily maximum 8-hour concentration.
3 In November 2008, USEPA revised the primary lead standard to 0.15 µg/m³. USEPA revised the averaging time to a rolling 3-month average, not to be exceeded.
4 In December 2012, USEPA revised the level of the annual $PM_{2.5}$ primary standards to 12 µg/m³ and retained the secondary level of the annual $PM_{2.5}$ standard at 15 µg/m³ and retained the level of the existing 24-hour $PM_{2.5}$ standard. With regard to primary standards for particle generally less than or equal to 10 µm in diameter (PM_{10}), USEPA retained the 24-hour standard and revoked the annual PM_{10} standard.
5 In June 2010, USEPA established a new 1-hr SO_2 standard at a level of 75 parts per billion (ppb), based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The USEPA also revoked both the existing 24-hour and annual primary SO_2 standards.
6 Parenthetical value is an approximately equivalent concentration for CO, NO_2, O_3 and SO_2.

ppb = parts per billion; µg/m³ (micrograms per cubic meter)
ppm = parts per million; mg/m³ (milligrams per cubic meter)

The criteria pollutant O_3 is not usually emitted directly into the air, but is formed in the atmosphere by photochemical reactions involving sunlight and previously-emitted pollutants or "O_3 precursors". These O_3 precursors consist primarily of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) that are directly emitted from a wide range of emissions sources. For this reason, regulatory agencies attempt to limit atmospheric O_3 concentrations by controlling NO_x and VOC pollutants (also identified as reactive organic gases).

The USEPA has recognized that particulate matter emissions can have different health effects depending on particle size and, therefore, developed separate NAAQS for coarse particulate matter PM_{10} and fine particulate matter $PM_{2.5}$. The pollutant $PM_{2.5}$ can be emitted from emission sources directly as very fine dust and/or liquid mist or formed secondarily in the atmosphere as condensable particulate matter typically forming nitrate and sulfate compounds. Precursors of condensable $PM_{2.5}$ can include SO_2, NO_x, VOC, and ammonia (NH_3). Secondary (indirect) emissions vary by region depending upon the predominant emission sources located within the area. The state air agency considers these sources when determining which precursors are considered significant for $PM_{2.5}$ formation and identified for ultimate control.

The CAA and USEPA delegated responsibility for ensuring compliance with NAAQS to the states and local agencies. Each state or local agency is required to develop air pollutant control programs and promulgate regulations that focus on meeting NAAQS and maintaining healthy ambient air quality levels. These programs are detailed in State Implementation Plans (SIPs) that must be approved by USEPA. A SIP is a compilation of regulations, strategies, schedules, and enforcement actions designed for a state to achieve and maintain compliance with all NAAQS. Any changes to the compliance schedule or plan (e.g., new regulations, emissions budgets, controls) must be incorporated into the SIP and approved by the USEPA.

The CAA required that the USEPA promulgate general conformity regulations. These regulations are designed to ensure that federal actions will conform to the state SIP so as not to impede with local efforts to achieve or maintain attainment with the NAAQS. The General Conformity Rule found in 40 CFR 93 requires a conformity determination for all federal actions located in nonattainment or maintenance areas for NAAQS unless otherwise exempted. A maintenance area is defined as area that was designated as nonattainment and has been re-designated in 40 CFR Part 81 to attainment, meeting the provisions of Section 107(d)(3)(E) of the CAA and has a maintenance plan approved under Section 175A of the CAA. Federal actions may be assumed to conform if total indirect and direct project emissions are below *de minimis* levels presented in 40 CFR 93.153. The threshold levels (in tons of pollutant per year) depend upon the nonattainment or maintenance area status that USEPA has assigned to a region for each NAAQS. Once the net change in nonattainment or maintenance area pollutants are calculated, the federal agency must compare them to the *de minimis* thresholds if a conformity determination is required.

Title V of the CAA Amendments of 1990 requires states and local agencies to implement permitting programs for major stationary sources. A major stationary source is a facility (e.g., plant, base, or activity) that has the potential to emit more than 100 tons annually of any one criteria air pollutant, 10 tons per year (tpy) of a hazardous air pollutant (HAP), or 25 tpy of any combination of HAPs.

However, lower pollutant-specific "major source" permitting thresholds may apply in certain nonattainment areas. For example, the Title V permitting threshold for an "extreme" O_3 nonattainment area is 10 tpy of potential VOC or NO_x emissions. The overall purpose of the Title V permitting rule is to establish regulatory control over large, industrial-type activities and monitor their impact on air quality.

Greenhouse Gases (GHGs) are gases that have been determined by science to trap heat in the atmosphere.

The GHGs are generated and emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere naturally helps regulate the earth's temperature but is believed to contribute to global climate change as defined by USEPA. The GHGs can include water vapor, carbon dioxide (CO_2), methane, nitrous oxide, O_3, and several hydrocarbons and chlorofluorocarbons. Each GHG has an estimated global warming potential (GWP) value, which is a function of its atmospheric lifetime and its ability to absorb and radiate infrared energy emitted from the earth's surface. The GWP of an individual GHG provides a relative basis for calculating its CO_2 equivalent (CO_2e), the amount of CO_2 equivalent to the emissions of that gas. The CO_2 has a GWP of 1, and is therefore, the standard by which all other GHGs are measured and compared. Facilities evaluating their baseline GHG emissions consider both direct and indirect emissions. Indirect GHG emissions are the result of facility activities that cause other entities to emit GHGs (i.e., electricity usage). Specific sources are required to report certain GHG annual emission levels to the USEPA under 40 CFR part 98 mandatory GHG reporting regulations. Executive Order 13693, *Planning for Federal Sustainability in the Next Decade* provides strategic guidance to federal agencies in the management of GHG emissions.

3.3.2 Affected Environment

Regional Climate

The climate of the southwestern region of Ohio is humid and temperate with warm summers and cold winters. Average minimum and maximum temperatures are between 21 and 36 degrees Fahrenheit (°F) in January and 45 and 85 °F in July. The average annual precipitation is 38.43 inches, with June typically being the wettest month and October the driest month. The prevailing winds are from the southwest, with average monthly wind speeds between 3 and 7 knots.

Regional Air Quality

Air Quality Control Regions (AQCRs) are federally designated areas that are required to meet and maintain federal ambient air quality control standards. Regions may include nearby locations of the same state or nearby states that share the same air pollution problems. The USEPA regulatory areas lie within the AQCRs and are designated by the USEPA as attainment or nonattainment. These areas are required to comply with the NAAQS. Through the CAA, Congress has stated that the prevention and control of air pollution belongs at the state and local level, thus the USEPA has delegated enforcement of the PSD and Title V programs to the OEPA. The OEPA has adopted the NAAQS by reference, thereby requiring the use of the standards within the state of Ohio.

Wright-Patterson AFB

The Base is located in Greene and Montgomery counties, which is part of the Metropolitan Dayton Intrastate AQCR (40 CFR 81.34). Each AQCR, or portions of an AQCR, are classified as an attainment, nonattainment, or maintenance area(s) for each of the criteria pollutants depending on whether it meets or fails to meet the NAAQS for the pollutant. Ambient air quality for the Metropolitan Dayton Intrastate AQCR is currently in a maintenance area for ozone (1997 standard) per a recent strategic basing site survey review and attainment for all current NAAQS identified in **Table 3-2**.

Air quality is typically good near WPAFB and is generally affected only locally by military and civilian vehicle emissions, particulate pollution from vehicle traffic, emissions from wastewater treatment plants, industrial sources, and construction activities. Mobile sources, such as vehicle and aircraft emissions, are generally not regulated at the local level and are not covered under existing stationary source permitting requirements. Stationary emissions sources at WPAFB include natural gas-fired boilers; research and development sources, such as laboratory fume hoods and test cells; paint spray booths; refueling operations; and emergency power generators.

The Base is under the jurisdiction of USEPA Region 5 and the OEPA. The Regional Air Pollution Control Agency (RAPCA), under the authority of the OEPA, conducts annual compliance inspections at WPAFB. The Base has long had an aggressive program of internal audits and inspections to ensure continual compliance with all applicable air permit terms and conditions. Detailed records are maintained to demonstrate compliance with emission limits and reports are submitted in a timely manner to the local regulatory agency.

The WPAFB air emissions inventory includes over 1,400 emissions sources. All air sources at WPAFB are identified with a four-digit number on a yellow sticker affixed to the source. The Air Program Manager at WPAFB requires notification prior to installation, removal, or relocation of any air source. Most of the stationary sources at WPAFB are classified by OEPA to be insignificant or *de minimis* because of low potential emission levels. Insignificant emission levels are defined in Ohio Administrative Code (OAC) rule 3745-77-01(V)(3) to be less than or equal to 5 tpy of any regulated air pollutant other than a HAP and not more than 20 percent of an applicable major source threshold. *De minimis* sources are exempt from air permitting requirements provided the emission source meets the requirements of OAC rule 3745-15-05.

The most recent renewal of the Title V operating permit was issued to WPAFB on January 18, 2017. There are 24 permitted significant emissions units identified in the permit, most of which were boilers and paint spray booths. All significant emissions units must have specific air permit conditions established by a Permit-to-Install (PTI) before being listed in the Title V operating permit. Modification or replacement of these sources may require a PTI application depending upon the size and the total scope of the project. Insignificant sources listed in the Title V permit may have permit conditions in a PTI or reporting requirements depending on the regulatory qualifications that categorize a source as significant.

Insignificant sources that were specifically issued a PTI must be evaluated individually prior to commencing work to assure that the terms and conditions of the issued PTI are maintained for any sources that are added or modified by this project. Insignificant sources that were permitted-by-rule (PBR) may be modified or relocated without notification provided the terms and conditions of the PBR are maintained. There are no existing permitted air sources within the proposed project area.

Insignificant sources that are *de minimis* or to which only generally applicable requirements apply may undergo additions, removals, and relocations and do not require a modification of the Title V permit provided the changes do not exceed insignificant emission levels.

3.3.3 Environmental Consequences

The environmental consequences to local and regional air quality conditions near a proposed federal action are determined based on the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. For the purposes of this EA, the impact in NAAQS "attainment" areas would be considered significant if the net increases in pollutant emissions from the federal action would result in any one of the following scenarios:

- Cause or contribute to a violation of any national or state ambient air quality standard
- Expose sensitive receptors to substantially increased pollutant concentrations
- Exceed any Evaluation Criteria established by a SIP

As mentioned in Section 3.3.2, the area including WPAFB is classified as fully in attainment for all current NAAQS, but is still a maintenance area for the 1997 ozone standard.

Impacts on air quality in NAAQS "nonattainment" areas are considered significant if the net changes in project-related pollutant emissions result in any of the following scenarios:

- Cause or contribute to a violation of any national or state ambient air quality standard
- Increase the frequency or severity of a violation of any ambient air quality standard
- Delay the attainment of any standard or other milestone contained in the SIP

For air sources from federal actions that do not require review for air permitting, the primary tool used to evaluate air impacts is the application of the Air Conformity Rule. Because WPAFB is located in an area that is full attainment for all NAAQS, a conformity applicability analysis would not be required to determine whether the Proposed Action is subject to the Air Conformity Rule. However, the AF has developed an Air Conformity Applicability Model (ACAM) to assist with evaluating air impacts that can also be used when a conformity applicability determination is not required.

For air sources from federal actions that do not require review for air permitting, the process of applying for air permits provides a much more in-depth analysis of the impacts than this EA. This EA identifies potential air regulations impacting the federal action but does not include emission modeling that may reveal adverse impacts during air permitting. For example, federal PSD regulations define air pollutant emissions to be significant if the source is within 10 kilometers of any federal Class I area (e.g., wilderness area greater than 5,000 acres or national park greater than 6,000 acres) and emissions would cause an increase in the concentration of any regulated pollutant in the Class I area of 1 $\mu g/m^3$ or more [40 CFR 52.21(b) (23) (iii)]. For the purposes of this EA, such an impact to a Class I area would be considered adverse, however, this specific impact can only be determined using refined air dispersion modeling conducted for a PSD permit application or in conjunction with a General Conformity determination.

Air Quality Regulations Applicable to the Proposed Action

Stationary Sources and New Source Review. Local and regional pollutant impacts resulting from direct and indirect emissions from stationary emission sources under the Proposed Action are addressed through federal and state permitting program requirements under NSR regulations (40 CFR 51 and 52). Local stationary source permits are issued by OEPA and enforced by RAPCA. As noted previously, WPAFB has appropriate permits in place and has met all applicable permitting requirements and conditions for existing stationary devices. The Proposed Action may include the addition of heating boilers and backup emergency power. It is not anticipated that these sources would trigger PSD applicability but may require a PTI or PBR application and inclusion on the insignificant list of the Title V operating permit. MILCON DD Form 1390 generically references the installation of "Heating, Ventilation, and Air Conditioning (HVAC) and plumbing, mechanical, security, and electrical systems". The detailed design is not complete at this time; however, natural gas, furnace/boilers, and emergency standby generators are assumed to be part of the build structures.

National Emissions Standards for Hazardous Air Pollutants. Because WPAFB has the potential to emit more than 25 tpy of HAPs, certain HAP-emitting activities on Base are subject to regulation under federal National Emissions Standards for Hazardous Air Pollutants (NESHAP), which are promulgated in 40 CFR Parts 61 and 63. These NESHAP require emissions control measures and detailed recordkeeping to show compliance with NESHAP restrictions on the types of materials, such as paints, adhesives, and solvents, which can be used in specific operations. Specific NESHAP to which activities at WPAFB are subject include:

- 40 CFR 63 Subpart GG, Aerospace NESHAP
- 40 CFR 63 Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE) Maximum Achievable Control Technology (MACT)
- 40 CFR 63 Subpart DDDDD, Industrial, Commercial, and Institutional Boilers (Boiler MACT)
- 40 CFR 61 Subpart M, Asbestos Remediation

In addition, WPAFB would also be subject to the Defense Land Systems and Miscellaneous Equipment (DLSME) NESHAP when that rule is promulgated. This rule would cover military surface coating operations other than those subject to the Aerospace and Shipbuilding NESHAP. The intent is to simplify compliance with DoD facilities that are currently forced to comply with multiple overlapping and sometimes conflicting, NESHAP, including the Miscellaneous Metal Parts and Products Coating NESHAP, Plastic Parts and Products Coating NESHAP, Metal Furniture Coating NESHAP, Large Appliance Coating NESHAP, and Fabric and Other Textiles Coating NESHAP. The USEPA currently has no date set for publication of a draft DLSME NESHAP.

Specific designs for the heating, mechanical, and electrical systems are not yet available. Any new boilers proposed for installation with the Proposed Action would be subject to the Boiler MACT depending upon the sizes of the individual boilers. Any new emergency generators would be subject to the RICE MACT and must meet the appropriate engine Tier standards. The Base must ensure that all required notifications are submitted to USEPA and all required work practice standards and emission standards are in place prior to boiler and generator startup to ensure all air quality standards are met.

Fugitive Dust Regulations. The OAC rule 3745-15-07 declares dust escaped from any source that causes damage to property to be a public nuisance. Pursuant to OAC rule 3745-17-08(A)(2), the OEPA Director may require any source that causes or contributes to such a nuisance to submit and implement a control plan that employs reasonably available control measures to prevent fugitive dust from becoming airborne. Because the Proposed Action would include construction and demolition activities that have the potential to generate noticeable amounts of dust particles larger in size than PM_{10}, reasonably available control measures (RACM) should be employed by the general contractor to minimize the impact to the neighboring community. The RACM can include, but are not limited to:

- Maintain a written Dust Control Plan onsite
- Apply water or other dust control chemicals to roads and surfaces as applicable
- Cover open-bodied trucks during the transport of material
- Promptly remove debris from paved surfaces to minimize and prevent re-suspension
- Plan material and equipment delivery routes to minimize contact of dust with nearby occupants

Architectural and Industrial Maintenance Coating Regulations. The OAC rule 3745-113, Architectural and Industrial Maintenance (AIM) Coatings, applies to any person who supplies, sells, offers for sale, or manufactures any AIM coating for use within the state of Ohio, as well as any person who applies or solicits the application of any AIM coating within the state of Ohio. At a minimum, the coating specifications for any construction activity associated with the Proposed Action must conform to the VOC content standards identified in the OAC rule 3745-113-03 for each specific AIM coating type anticipated for application. The localized environmental impacts of the coating applications may be reduced by specifying the use of no-VOC or low-VOC content coatings used in construction.

Greenhouse Gases. GHG emissions from the Proposed Action have been quantified to the extent feasible for informational and comparison purposes. The GHG temporary construction emissions and emissions from ongoing activities were estimated using CO_2e off-road equipment and on-road vehicle emission factors provided in ACAM. CO_2e emission level calculations reported in **Appendix C** show about 1,750 tons from construction and demolition activities and continuous emissions of about 730 tons. This is not considered to be a substantial amount to warrant any remedial action. Additionally, the *Evaluation of Climate Change Effects on Army Locations – Interim Draft for Review* (April 2019) contains a screening level assessment of the effects of six climate impacts (coastal flooding, riverine flooding, desertification, wildfire, thawing permafrost, drought) to 113 Army locations. Preliminary results from the report would indicate that the Dayton region in Ohio would rate low in the climate vulnerability score for the impacts studied. Furthermore, because the Proposed Action entails relocating existing activities to within a fifty mile radius, the before and after climactic impacts are negligible.

3.3.3.1 Proposed Action

Direct and Indirect Emissions

Construction and Demolition Activities. Under the Proposed Action, the construction of the AMSA, VMS, and USARC include typical construction activities for site preparation, building erection, parking lot and roadway pavement, and landscaping. Although the outbuilding was demolished in spring 2020, the Proposed Action also included demolition and removal of and the vacant outbuilding from the project site as a conservative measure.

Installation and demolition activities would result in emissions. of criteria pollutants from the equipment engine exhaust and particulate matter emitted as fugitive dust from trenching activities and the movement of material and equipment. Additionally, vehicle emissions from the delivery trucks are included along with worker commuter emissions. The VOC emissions may result from painting or surface coating required for the project. Because each module in the ACAM only includes the number of workers

operating equipment, a separate category for transient workers commuting was included to account for contractors performing specific equipment installation, testing, and project supervision. All criteria pollutant emissions from construction activities would be temporary.

Ongoing Operations. The relocated AMSA, VMS, and USARC activities include vehicle maintenance, fuel tanker maintenance and cleaning, and weekend training activities for reservists. Additionally, permanent staff would be relocated to the site in addition to the number of weekend reservists commuting onsite for training. Emissions of criteria pollutants would result from vehicular exhaust from commuting, training exercises, and maintenance activities. Also, VOC emissions may result from fuel tank purging and cleaning. Given that diesel fuel has low volatility, much of the material would be collected in the wastewater. The ACAM is limited in its ability to estimate emissions from maintenance activities, therefore, default emission factors from similar types of air ground equipment (AGE) and fuel tanks were used.

Emissions resulting from the Proposed Action for construction activities, demolition activities, and ongoing operations are summarized on an annual basis in **Table 3-4** and **Appendix C**.

Table 3-4 Annual Criteria Pollutant Emissions at WPAFB Associated with the Proposed Action Phase I, Phase II, and Ongoing Operations

Air Pollutant Emissions Source	VOC Emissions (tpy)	NO_x Emissions (tpy)	CO Emissions (tpy)	PM_{10} Emissions (tpy)	$PM_{2.5}$ Emissions (tpy)	SO_2 Emissions (tpy)
Phase I						
Calendar Year 2021	2.067	6.747	16.393	30.159	0.287	0.087
Calendar Year 2022	1.914	4.969	42.098	0.127	0.233	0.292
Calendar Year 2023	1.914	4.969	42.098	0.127	0.233	0.292
Phase II						
Calendar Year 2024	4.308	8.052	46.816	14.132	0.349	0.302
Calendar Year 2025 +	1.914	4.969	42.098	0.127	0.233	0.292
Significant Impact Rates (ACAM)	100	100	100	100	100	100
Any Annual Emission Levels Exceeds Impact Rates	No	No	No	No	No	No

Note: Tpy = tons per year

Analysis. The timeline assumed in the air emission analysis for the execution of the Proposed Action identified two construction phases separated by three years and ongoing mission activities. In accordance with the AF EIAP guide, it is recommended to use the Significant Indicators provided in the ACAM to qualify if the emission levels have the potential for significant impact. The information presented in **Table 3-4** shows that for the Proposed Action, the emissions estimated for each calendar year do not exceed the significant impact rates for any criteria pollutant. The projected increases for construction years are temporary for project installation and demolition activities. The projected emission increases

from ongoing operations are new for WPAFB, but not new for the Dayton region as these are existing activities being relocated from within a fifty-mile radius of the Base.

3.3.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.3.2, would remain the same. No routine activity would occur and no new air emissions would be generated. Therefore, there would be no short- or long-term impacts because there would be no change in air emissions over baseline conditions.

3.3.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative actions related to the Primary Runway Pavement Replacement project and the Basewide project to Repair Roads (listed in **Table 3-1**) would have the potential to impact overall air quality emissions. However, the state of Ohio accounts for all significant stationary, area, and mobile emission sources under the CAA and USEPA in the development of a SIP. Because the SIP is a compilation of regulations, strategies, schedules, and enforcement actions designed for a state to achieve and maintain compliance with all NAAQS, no significant cumulative impacts on air quality are anticipated.

3.4 Water Resources

3.4.1 Definition of the Resource

Water resources include groundwater, surface water, and floodplains. Evaluation of water resources examines the quantity and quality of the resource and its demand for various purposes.

Groundwater

Groundwater consists of the subsurface hydrologic resources and is an essential resource often used for potable water consumption, agricultural irrigation, and industrial applications. Groundwater can be described in terms of its depth from the surface, aquifer or well capacity, water quality, surrounding geologic composition, and recharge rate.

Surface Water

Surface water resources consist of lakes, rivers, and streams. Storm water is an important component of surface water systems because of its potential to introduce sediments and other contaminants that could degrade lakes, rivers, and streams. Storm water flows, which may be exacerbated by high proportions of impervious surfaces associated with buildings, roads, parking lots, and airfields are important to the management of surface water. Storm water systems convey precipitation away from developed sites to appropriate receiving surface waters. Higher densities of development require greater degrees of storm water management because of the higher proportions of impervious surfaces that occur from buildings, parking lots, and roadways.

Floodplains

Floodplains are areas of low-level ground present along rivers, stream channels, or coastal waters and might be subject to periodic or infrequent inundation due to rain or melting snow. Flood potential is evaluated by the FEMA, which defines the 100-year floodplain for this section of the Mad River as 813.4 ft above mean sea level (MSL). The 100-year floodplain is the area that has a one percent chance of inundation by a flood event in a given year.

Executive Order 11988, *Floodplain Management*, requires federal agencies to determine whether a proposed action would occur within a floodplain and typically involves consultation of appropriate FEMA Flood Insurance Rate Maps. Executive Order 11988 directs federal agencies to avoid floodplains unless the agency determines that there is no practicable alternative. Where the only practicable alternative is to site in a floodplain, a specific step-by-step process must be followed to comply with EO 11988 outlined in the FEMA document *Further Advice on EO 11988 Floodplain Management*.

All floodplain-related construction activities must be coordinated with the MCD for approval. The MCD through the *Land Use Agreement* (dated January 7, 2000) and the MCD *Policy and Procedure for Permits in Retarding Basins* regulates all construction on land within the Huffman Dam Retardation Basin and more than 5 ft below the spillway elevation of 835 ft above MSL.

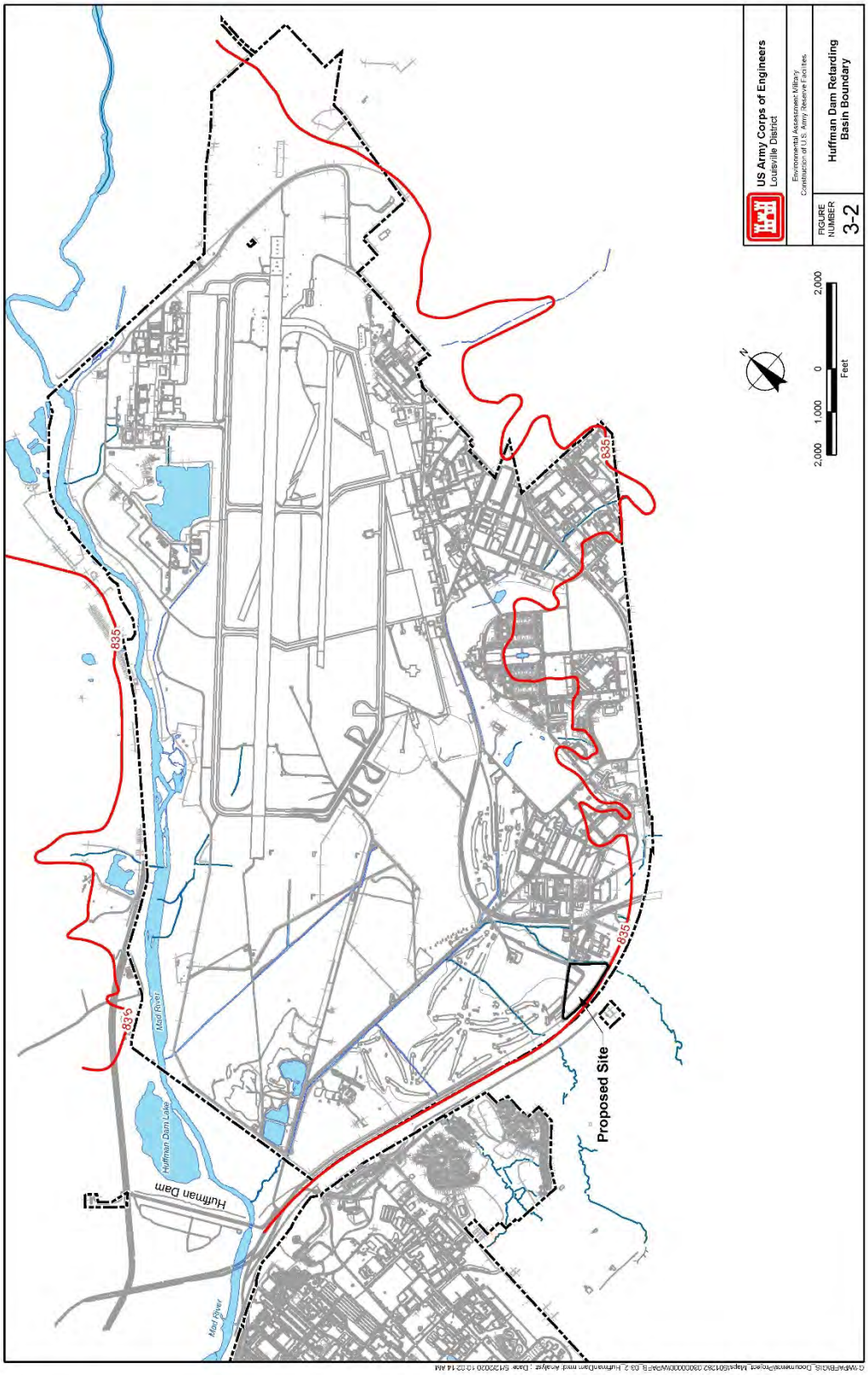
Huffman Dam is 3,340 ft long and 65 ft high. The drainage area above the dam is 635 square miles. It would take five days to empty the retarding basin after a maximum high-water event. The Huffman Dam can store 54.43 billion gallons of floodwater (MCD 2020a). Floodgates are an important part of the MCD flood protection system. Closing floodgates (e.g., sluice gates, flap gates, flex valves, un-gated outfalls) is one of the first actions taken by MCD during a high-water event and prevents river water from backing through the sewer into the cities (MCD 2020b). Because MCD can control floodwater through these floodgates, the Huffman Dam is not in a closed position and is in a constant state of flow.

Figure 3-2 presents the 835 ft spillway elevation for the Huffman Dam retarding basin boundary in Area A at WPAFB. **Figure 3-3** presents an aerial photograph of the Huffman Dam looking northwest (WPAFB runway in far upper right corner and Mad River flowing through dam).

3.4.2 Affected Environment

Groundwater

The Base is located in the Great Miami River Valley, which is filled with glacial deposits of sand and gravel. The glacial outwash deposits are very permeable and exhibit high transmissivity and hydraulic conductivity. The Miami Valley Buried Aquifer system is a highly productive source of water for the millions of people in southwest Ohio. The USEPA designated the Miami Valley Buried Aquifer system as a sole-source aquifer in 1988, requiring USEPA Region 5 approval on all new projects to ensure continued use as a drinking water supply (53 Federal Register 15876). The buried aquifer system provides drinking water for more than 1.6 million people in southwest Ohio (Debrewer 2000).


US Army Corps of Engineers
Louisville District
Environmental Assessment Military Construction of U.S. Army Reserve Facilities
Huffman Dam Retarding Basin Boundary
FIGURE NUMBER 3-2
N
2,000
0
1,000
2,000
Feet
835
836
Mad River
Huffman Dam Lake
Huffman Dam
Proposed Site

1

Figure 3-3. Aerial Photograph of Huffman Dam

Source: MCD 2020a

Groundwater can also be found in large volumes in the Silurian-age (415 to 465 million years ago) limestone and dolomite bedrock underneath the buried valley aquifer system. Private wells and smaller public systems typically use this bedrock aquifer because, though not as productive as the buried aquifer, it is adequate for such uses (MCD 2002). Underneath the limestone and dolomite bedrock is Ordovician-age (465 to 510 million year ago) bedrock shales and limestones of the Richmond Group. The lower bedrock aquifer system generally produces less than 5 gallons per minute (gpm) and is only productive enough for livestock use.

The buried valley aquifers coincide with the present Great Miami River and its tributaries. Water underground generally follows the same flows as surface waters with upland areas serving as recharge areas and groundwater divides (MCD 2002). At WPAFB, the Mad River follows the course of the Mad River Buried Aquifer, part of the Miami Valley Buried Aquifer system. South of Huffman Dam (a flood control dam that is managed by the MCD), a till zone divides the Mad River Buried Aquifer into an upper water table unit and a lower confined unit. However, north of the dam and in other parts of the buried valley aquifer, till zones occur less frequently as discontinuous, less-permeable zones within the more permeable outwash deposits (WPAFB 1995).

Most of the wells in the outwash deposits yield between 750 and 1,500 gpm, but can vary from less than 200 to more than 4,000 gpm (WPAFB 1995). The city of Dayton groundwater production wells at Huffman Dam are screened at depths of over 100 ft below ground surface.

Under its Environmental Restoration Program (ERP), the Base has grouped confirmed or suspected sites requiring investigation and characterization into 11 geographically-based operable units (OUs), designated as OUs 1 through 11. The MILCON project site is not located within any OUs. Operable Unit 4 (OU4) is the nearest OU, which is located northeast of the MILCON project site. General groundwater flow through OU4 is to the west and toward the Mad River. Groundwater at OU4 is monitored under the Groundwater Operable Unit (GWOU) and the Long-Term Monitoring (LTM) Program. The MILCON project site is also not located within the 1- or 5-year travel time well-head protection area for the Area A water supply wells and is not located within the city of Dayton SWPP boundary (Dayton 2018).

Surface Water

The Base is in the Mad River Valley. The Mad River originates approximately 40 miles north of Springfield, Ohio, flows south and southwest past WPAFB to its confluence with the Great Miami River in Dayton, Ohio, and flows into the Ohio River. Sustained flow of the Mad River originates from groundwater discharge of glacial deposits upstream of Huffman Dam. The Mad River approaches WPAFB from the north and flows along the western border of Area A. The OEPA has divided the Mad River watershed into five areas: headwaters; Mad River between Kings and Chapman Creeks; Buck Creek; Mad River from Chapman to Mud Creeks; and the lower Mad River (Mud Creek to the Great Miami River). Mud Creek enters the Mad River 2,000 ft north of the State Route 235 bridge, near the northwest corner of Area A. The Base lies adjacent to the northernmost portion of the lower Mad River segment.

The OEPA has identified the lower segment of the Mad River, which flows through WPAFB, as an impaired water under Section 303(d) of the Clean Water Act (CWA) for not meeting aquatic life and recreation use standards (OEPA 2010).

The USEPA has established the total maximum daily load (TMDL) of effluent for the Mad River in the *Mad River Total Maximum Daily Loads for Sediment and Turbidity* (USEPA 2007). A TMDL specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and allocates pollutant loadings among point and nonpoint pollutant sources. The TMDL for the Mad River watershed has been set at 120 percent of natural sediment loading. According to the report, the natural sediment loading in the basin is approximately 894 tons/square mile/year based on an annual average.

The WPAFB *Storm Water Management Plan* (SWMP) and the *Storm Water Pollution Prevention Plan* (SWPPP) (prepared to comply with the CWA and the Ohio Water Pollution Control Act) provides descriptions of storm drainage areas and their associated outfalls, potential storm water pollution sources,

and material management approaches to reduce potential storm water contamination (WPAFB 2016a). The SWMP covers all areas and non-industrial activities within the limits of WPAFB and was last updated in July 2016. Storm water protection for industrial activities is covered in the SWPPP, which was last updated in September 2016 (WPAFB 2016b).

The SWMP addresses the specific storm water management requirements of municipal National Pollutant Discharge Elimination System (NPDES) General Permit No. OHQ000003 (WPAFB 2016a), while the SWPPP addresses the requirements of the industrial NPDES Permit No. IO00001 (WPAFB, 2016b). The current version of this permit is IO00001*GB (the two-letter suffix changes with each renewal of the permit).

The SWPPP and SWMP provide specific BMPs to prevent surface water contamination from activities such as construction, storing and transferring of fuels, storage of coal, use of deicing fluids, storage and use of lubrication oils and maintenance fluids, solid and hazardous waste management, and use of deicing chemicals. Implementation of the following BMPs reduce the likelihood of pollutants entering the WPAFB storm system from construction activities: silt fences, sediment basins, rock check dams, temporary seeding, storm drain inlet protection, and dust control.

There are 20 defined drainage or "Outfall Areas" and 23 NPDES discharge monitoring points on Base that are addressed under the NPDES permit (WPAFB 2016b). All storm water from WPAFB flows into the Mad River. Surface water in the WPAFB area includes the Mad River, Trout Creek, Hebble Creek, Twin Lakes, Gravel Lake, and wetland areas. These surface water features are recharged by both precipitation and groundwater. Trout Creek and Hebble Creek provide drainage of surface water runoff at WPAFB.

Trout Creek is located in the western portion of Area A and discharges to the Mad River north of Huffman Dam. Hebble Creek passes through the southwestern portion of Area A and discharges to the Mad River several hundred ft north of Huffman Dam. Gravel Lake, Twin Lake East and Twin Lake West are located in the southwest portion of Area A. These lakes were created as a result of gravel quarrying activities at WPAFB. Currently, the lakes are maintained as recreational areas for Base personnel and their families.

Elevation on the MILCON project site is similar to a bowl-shape where the perimeter is at a higher elevation than the middle portion; therefore, drainage on site would naturally flow from topographically higher elevations around the perimeter toward the middle. In addition, a small unnamed drainage ditch flows in a northerly to southerly direction across the MILCON site. This ditch flows into an unnamed tributary to Hebble Creek.

Floodplains

A large portion of WPAFB and most of Area A lies within the Mad River floodplain. The 10-year floodplain is at 803.8 ft above MSL, and the 100-year floodplain is at 813.4 ft above MSL as calculated

using the North American Vertical Datum of 1988 (National Geodetic Survey [NGS] 2017). The MILCON project site is located at an elevation of approximately 820 ft above MSL and is not located within a flood hazard as established by FEMA (FEMA 2011). The MILCON project site is located in Zone X, according to a review of the FEMA National Flood Insurance Program Flood Insurance Rate Map (**Figure 3-4**). Zone X is defined as an area of minimal flood hazard, which is an area outside a Special Flood Hazard Area as elevation with no more than 0.2 percent annual chance to annually flood (FEMA 2019). As described in Section 3.4.3.1, however, the proposed project site is located within the retarding basin upstream of Huffman Dam.

3.4.3 Environmental Consequences

Evaluation criteria for impacts on water resources are based on water availability, quality, and use; existence of floodplains; and associated regulations. Impacts would be adverse if proposed activities result in one or more of the following:

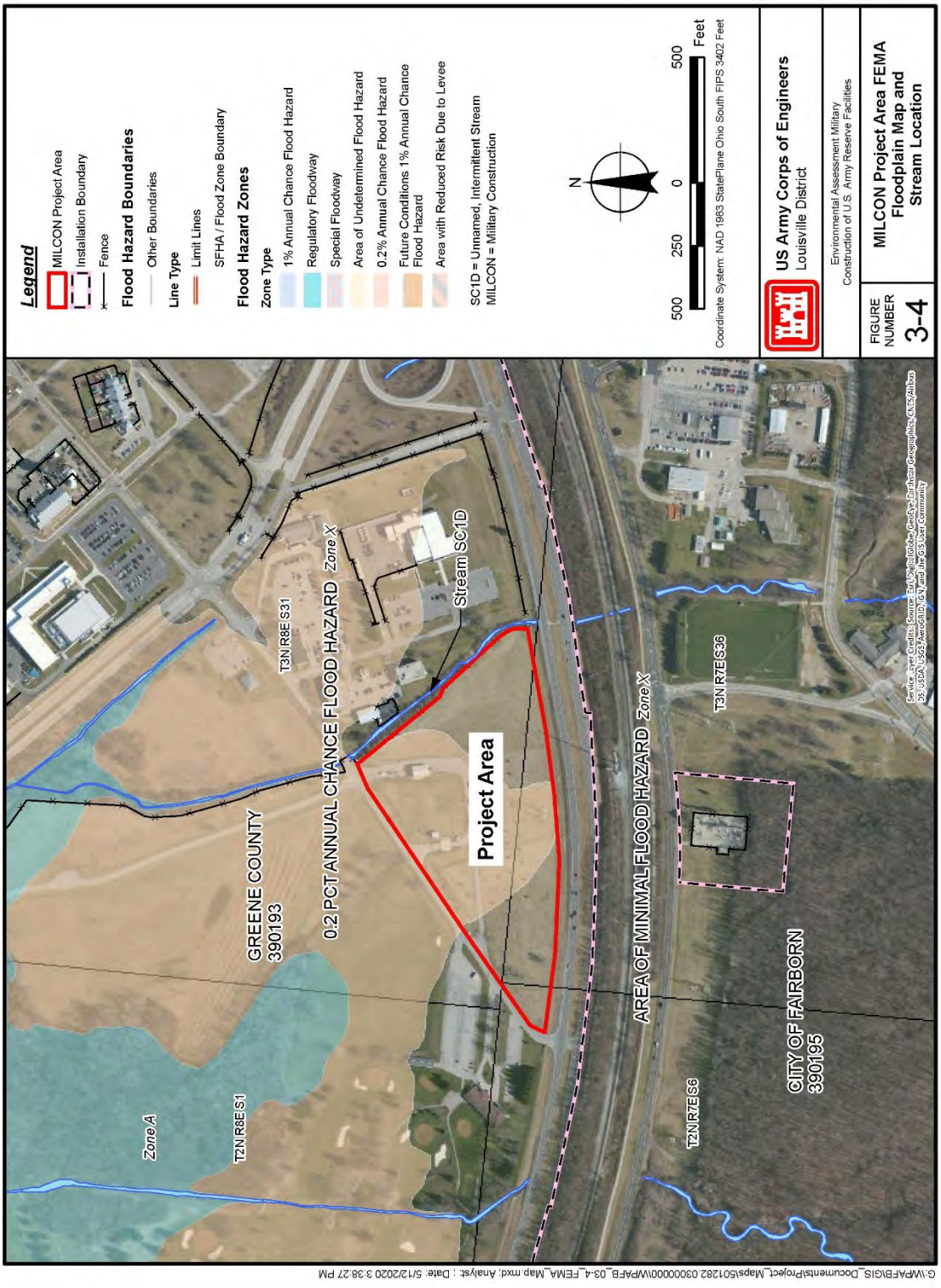
- Reduces water availability or supply to existing users
- Overdrafts groundwater basins
- Exceeds safe annual yield of water supply sources
- Affects water quality adversely
- Endangers public health by creating or worsening health hazard conditions
- Threatens or damages unique hydrologic characteristics
- Violates established laws or regulations adopted to protect water resources

The groundwater and surface water systems that surround WPAFB are closely interconnected. Potential runoff contaminants from construction activities that would impact surface water quality would also impact groundwater quality. Therefore, they are analyzed together.

Storm water runoff in urban areas is one of the leading sources of water pollution in the U.S. (USEPA 2018). In December 2007, Congress enacted the Energy Independence and Security Act (EISA) establishing strict storm water runoff requirements for federal development and redevelopment projects. Section 438 of EISA requires federal agencies to develop and redevelop facilities with a footprint that exceeds 5,000 sf in a manner that maintains or restores the pre-development site hydrology to the maximum extent technically feasible. Federal agencies can comply using a variety of storm water management practices often referred to as “green infrastructure” or “low impact development” practices, including reducing impervious surfaces and using vegetative practices, porous pavements, cisterns and green roofs (USEPA 2018).

3.4.3.1 Proposed Action

The MILCON project site consists of a grassy lawn with scattered spruce trees. The north portion of the proposed project site contains the Gate 16A structure that measures 38 ft by 62 ft and was used as an inspection building for commercial vehicles entering WPAFB and contains a canopy, high-bay drive through, an office, waiting area, storage room, and restroom. F/11465 was demolished in spring 2020.


Legend
MILCON Project Area
Installation Boundary
Fence
Flood Hazard Boundaries
Other Boundaries
Line Type
Limit Lines
SFHA / Flood Zone Boundary
Flood Hazard Zones
Zone Type
1% Annual Chance Flood Hazard
Regulatory Floodway
Special Floodway
Area of Undetermined Flood Hazard
0.2% Annual Chance Flood Hazard
Future Conditions 1% Annual Chance Flood Hazard
Area with Reduced Risk Due to Levee
SC1D = Unnamed, Intermittent Stream
MILCON = Military Construction
N
500 250 0 500 Feet
Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
US Army Corps of Engineers
Louisville District
Environmental Assessment Military Construction of U.S. Army Reserve Facilities
FIGURE NUMBER 3-4
MILCON Project Area FEMA Floodplain Map and Stream Location
Project Area
Stream SC1D
GREENE COUNTY
390193
CITY OF FAIRBORN
390195
0.2 PCT ANNUAL CHANCE FLOOD HAZARD Zone X
AREA OF MINIMAL FLOOD HAZARD Zone X
Zone A
T3N R8E S31
T2N R8E S1
T3N R7E S36
T2N R7E S6
G:\WPAFB\GIS_Documents\Project_Maps\501282.03\00000\WPAFB_03-4_FEMA_Map.mxd; Analyst: ; Date: 5/12/2020 3:38:27 PM

1

A vacant outbuilding was located in the middle portion of the site and a mobile job trailer that was used as a temporary concrete truck inspection facility is also located in the middle portion of the site. Although the outbuilding was demolished in spring 2020, demolition was evaluated as part of the Proposed Action in this EA as a conservative measure.

Groundwater

Proposed building construction would have no short- or long-term adverse impact on groundwater at the project site. Groundwater in this area occurs at an approximate depth of 17 feet below ground surface and flows northwest through the site (CH2M HILL 1994). Based on the relatively brief amount of time soil would be exposed from construction to re-vegetation of the site, infiltration or precipitation may increase slightly and the impact of the release of construction-related materials (i.e., in the event of a minor spill) would be minimal to the upper water bearing zone below the surficial layer.

Surface Water

Construction activities would have minor adverse short-term impact on surface water quality in the vicinity of the project site. Best management practices would be implemented during construction activities (facility construction and parking lot installation) to prevent excessive soil erosion, runoff, and minor spills and to comply with EISA 438, which requires construction sites be returned to pre-development hydrology. In addition, the MILCON construction site would be required to comply with the requirements of the WPAFB storm water permits. The details regarding the BMPs required under both permits are provided in the SWMP. The municipal NPDES SWMP would specifically require the MILCON construction site to implement the following storm water protection practices, where applicable, to reduce the likelihood of pollutants entering the WPAFB storm system from construction activities: silt and/or sediment fencing, rock check dams, temporary seeding, storm drain inlet protection, and dust control (WPAFB 2016a).

Greater than one acre of soil at the proposed MILCON construction site would be disturbed during construction activities; therefore, contractors would be required to obtain storm water permitting coverage under the OEPA NPDES General Storm Water Permit for Construction Activities (OHC000004), which is also known as the Construction General Permit (CGP) (WPAFB 2016a). This requires the contractor to develop a Notice of Intent (NOI) for coverage under the CGP and a SWPPP for the construction site. These documents must be approved by the Water Quality Program Manager (WQPM) prior to submittal to the OEPA by the contractor. Coverage under the CGP must be granted to the contractor from OEPA prior to breaking ground on the MILCON project. These procedures ensure that the contractor, who is the permittee, fulfills the responsibilities outlined in the CGP throughout the duration of the project.

The WPAFB General Environmental Specification also regulates contractors to:

- Restore disturbed soil areas that previously supported vegetation
- Control litter

- Recycle construction and demolition waste (preferably through the WPAFB Recycling Center) or properly dispose offsite
- Prepare a *Spill Prevention, Control, and Countermeasures (SPCC) Plan* for each location where hazardous waste or hazardous materials are stored
- Properly manage hazardous materials and hazardous wastes

Long-term negligible impact would result due to an increase in impervious surface area resulting from construction of the facilities and associated parking areas in previously vegetated areas. Potential impacts would be addressed by the design; which would include control measures such as ditches, swales, and/or detention/retention ponds would facilitate the flow of surface water across the MILCON project site. It is noted that design drawings have not yet been drafted for the MILCON project site and cannot be detailed in this section; therefore, only general surface water/impervious surface area minimization techniques are mentioned as control measures. Once operational, impacts due to potential fuel leaks or spills would be expected to be negligible because no fuel would be stored at the facility and fuel tank trucks would be staged in "dry" condition. In the event of a release of fuel or oil during vehicle maintenance or training activities, the design would include an oil-water separator to capture and contain POL.

As described in Section 3.7.2 (Hazardous Materials/Waste), the USAR facility would be covered under WPAFB's SPCC Plan (WPAFB, 2016a). Each organization, shop, or activity at WPAFB that handles petroleum, oil, and lubricants (POL), hazardous materials, or hazardous wastes is required to have a Site-Specific Spill Plan (SSSP). Spill response is addressed in the WPAFB's Integrated Contingency Plan (WPAB, 2018b). The WPAFB Fire Department is the first responder if spilled materials present a fire hazard, may reach a water way, or prevent a situation beyond the capability to control and clean up the spilled material. Spilled materials would be recovered or cleaned up with absorbent material to reduce potential damage to the storm water system and to reduce potential discharge to the storm water system in the next precipitation event.

Storm water runoff from the area would also be periodically monitored for POL (WPAFB, 2016a). Outfalls are visited by 88 CEG/CEIE personnel during dry weather conditions to identify any storm water discoloration, smell, or sheen. Absorbent boom maintenance occurs periodically during routine ground activities at Outfalls 2, 3, 4, 14, 15, 17, and 18 (**Figure 3-2**). 88 CEG/CEOH currently has systems and resources in place to perform the following system maintenance activities: debris removal, sediment removal, storm water sewer flushing and sediment removal, and absorbent boom maintenance. Storm system maintenance is on-going throughout the year. Wastes generated from storm system maintenance are managed based on waste type.

The proposed project site is not located within a designated storm drainage area; however, it is adjacent to NPDES Area 6. There is no listed outfall in NPDES Area 6 in the current or upcoming NPDES permit. This area is subject to the stormwater comprehensive site inspection requirement contained in Part IV.E.3 of the NPDES permit. In addition, storm water from areas without industrial activity are addressed by

WPAFB's Small MS4 NPDES Permit 1GQ00043. As there are no industrial activities exposed to stormwater, only basic requirements apply, such as cleaning up spills and avoiding products from entering waterways. When the final design is available, 88th ABW would review expected storm water retention and discharge plans and stored POL chemical quantities to reassess if closer ground water monitoring needs to be initiated.

Floodplains

According to EO 11988, *Floodplain Management*, any new construction in the regulatory floodplain must apply accepted flood protection to reduce the risk of flood-associated damages; minimize the impacts of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains. The MILCON project site is not located within a floodplain.

As part of the Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process for this EA, WPAFB requested input from MCD on the Proposed Action (**Appendix B**). The MCD responded indicating the project is located within the retarding basin upstream of Huffman Dam and is subject to the following MCD rights reserved in Deed Book 129, Page 146 recorded in Greene County on December 16, 1922:

- The right to back waters of the Mad River over the property to elevation 835 ft by the action of Huffman Dam.
- The right to remove all structure situated below elevation 825 ft.
- No new structures may be erected below elevation 830 ft except by written permission from MCD.
- All structure erected or maintained below elevation 835 ft are at the risk of the owner.

The MCD response indicated buildings proposed for construction at an elevation of 820 ft or below would not be consistent with MCD rights defined in the deed. The MILCON project site is located at an elevation of approximately 820 ft above MSL, which is within the Huffman Dam retarding basin boundary (**Figure 3-4**); however, it is not within any established FEMA flood hazards. Elevations at the proposed site were provided in the MCD permit application.

The WPAFB Natural Resources Program Manager contacted a representative of MCD to further clarify the deed restrictions indicated in the letter. In summary, the representative indicated that written permission would be required from MCD in order to build structures below an elevation of 830 ft and a requirement by the owner to go before the MCD Board of Directors requesting permission to build structures below an elevation of 830 ft would also be required. Copies of the MCD letter and the Retarding Basin Permit Application are presented in **Appendix B**.

Based on further communication with MCD, the Air Force submitted a Retarding Basin Permit Application on August 8, 2019. Subsequently, the Air Force met with the MCD representatives Board of

Directors on September 9, 2019 and September 18, 2019 to discuss the application and project details (i.e., facility sizes, alternatives considered, construction timing). During this meeting, the MCD expressed concerns regarding construction of facilities in the retarding basin and potential life safety issues that may arise. Elevation data for the proposed MILCON project site indicates areas on the east and west ends of the MILCON project site are at elevations of +824 ft. The center and north areas of the site are at lower elevations of +820 ft. In addition, MCD agreed to work with WPAFB regarding mitigation factors that minimize any adverse impacts to property, life, safety, and/or health issues due to the project's close proximity to the Huffman Dam. WPAFB then met with U.S. Army Corps of Engineers (USACE) and USAR to discuss MCD's concerns and potential opportunities for mitigation. The following mitigation measures were proposed during this meeting:

- Proposed facilities would be constructed at the east and west sides of the property with appropriate setback to meet ATFP requirements. Soil from within the site would be utilized to raise areas where facility construction would take place at an elevation of 825 ft or higher. Additional material may be needed to adequately build up the foundations of the proposed facilities. Any additional material utilized for the USAR facilities would be offset by the negative 10,000 cubic yards removed from the National Air and Space Intelligence Center (NASIC) project site, located approximately ¾-mile away, within the retarding basin. As a result, no additional material would be added to the retarding basin.

- Parking lots would be constructed at lower areas of elevation.

- Ramps and stairs would be included in the design of the facilities as needed for access into the facilities.

- Reduction of the footprint of the facilities would be considered during the design of the facilities. However, the feasibility of going beyond a one-story building would depend on functionality of space and budget to ensure facilities comply with American with Disabilities Act.

- USARC personnel would depart the MILCON project site every evening; therefore, no overnight sleeping quarters would be required or available for personnel.

- A Flood Response Plan would be in place. Flood Plan Procedures are included in the WPAFB Installation Emergency Management Plan. In part, flood response would require the monitoring of river elevation, notification of personnel, removal of assets, and the evacuation of personnel.

Based on negotiations between MCD and WPAFB, Retarding Basin Permit No: 20-3649-1, Revision No. 3 was signed on October 5, 2020. Among the terms, conditions, and restrictions listed in the Permit are final plan approval and rights of inspection for MCD. In addition, WPAFB would conform with the requirements regarding use of Non-Habitable Structures. A copy of the signed Permit is provided in **Appendix B**.

3.4.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.4.2, would remain the same. There would be no short- or

long-term impacts because there would be no sources of erosion/sedimentation and no change in groundwater or surface water quality over baseline conditions. In addition, under the No Action alternative, there would be no short- or long-term impacts to the retarding basin of Huffman Dam because capacity would remain the same; there would be no need to offset net gain or loss of soil over baseline conditions.

3.4.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative actions related to the NASIC Complex Renovation and Primary Runway Pavement Replacement projects (listed in **Table 3-1**) would have short-term, minor, cumulative adverse impacts on groundwater and surface water resources due to potential runoff from construction sites. For each site, impacts from runoff would be minimized by using BMPs. Once completed, however, cumulative increases in impervious surfaces from these cumulative projects would be considered a minor contribution in the context of the whole watershed. In addition, as described in Section 3.4.3.1, an application was submitted to the MCD for placement of fill material because the MILCON project site is located within the retarding basin and no fill material may be placed in the retarding basin without an approved storage compensation agreement. To compensate, excess fill from the NASIC project would be used to offset the loss of storage capacity at the proposed construction site. Therefore, no net loss of the storage capacity would be expected as a result of the Proposed Action when combined with other cumulative projects in the area. The Retarding Basin Permit was signed on October 5, 2020 (**Appendix B**).

3.5 Biological Resources

3.5.1 Definition of the Resource

Biological resources include native or naturalized plants and animals, and the habitats, such as wetlands, forests, and grasslands, in which they exist. Sensitive and protected biological resources include plant and animal species listed as threatened or endangered by the USFWS or a state.

Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat detention, and erosion protection. Wetlands are protected as a subset of the “the waters of the United States” under Section 404 of the CWA.

The term “waters of the United States” has a broad meaning under the CWA and besides navigable water, incorporates deepwater aquatic habitats and wetlands. The USACE defines wetlands as “those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (33 CFR Part 328).

Under the Endangered Species Act (ESA) (16 USC 1536), an "endangered species" is defined as any species in danger of extinction throughout all or a large portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future.

The ODNR, Division of Wildlife may restrict the taking or possession of native wildlife threatened with statewide extirpation and maintains a list of endangered species (Ohio Revised Code [ORC] 1531.25). Additionally, ODNR maintains a list of plant species native to the state and in danger of extirpation or are threatened with becoming endangered. These plants are protected pursuant to ORC Chapter 1518.

3.5.2 Affected Environment

Vegetation

The Base contains four general types of natural vegetative communities: forest, old fields, prairie, and wetlands. Areas that may be impacted consist of previously-disturbed areas that are covered with gravel. Disturbed vegetation includes maintained areas that are frequently mowed such as right-of-ways, lawns, and recreational areas, and have been designated by the Base as turf and landscaped areas.

Wildlife

The Base is home to a variety of wildlife. Previously conducted surveys documented the presence of 23 species of mammals, 118 bird species, 8 reptile species, and 6 amphibian species on the Base (WPAFB 2015). Areas of the Base associated with the Proposed Action are located within previously disturbed areas and species occurring in such areas are common species to the Base.

Because birds as well as mammals pose a hazard to airfield and aircraft operations, the AF has established bird air strike hazard and wildlife management plans. The Base implements a comprehensive *Bird/Wildlife Aircraft Strike Hazard* (BASH) plan that involves prevention, monitoring, and reduction of bird/wildlife hazards (WPAFB 2015).

According to the WPAFB *Integrated Natural Resources Management Plan* (INRMP), the Huffman Prairie, a 109-acre sensitive and protected area, is located in Area A and is greater than 2,000 ft north of the MILCON project area. There are no other known sensitive habitats or protected areas in close proximity to the MILCON project area.

Threatened and Endangered Species

Endangered and threatened species on the Base are protected under the ESA. In addition, AFPD 32-70 and AFI 32-7064 require all Air Force installations to protect species classified as federally or state endangered or threatened. The *Endangered Species Management Plan* (BHE Environmental, Inc. [BHE] 2001), which has been incorporated into the INRMP, provides species-specific protection and conservation measures to protect known special status species occurring on the Base (WPAFB 2015).

Protected wildlife and plant species by the ODNR and the USFWS known to occur or known to have occurred on WPAFB are included in **Table 3-5**. The occurrence of habitat for threatened and endangered species in the general vicinity of the proposed site is indicated in **Figure 3-5**.

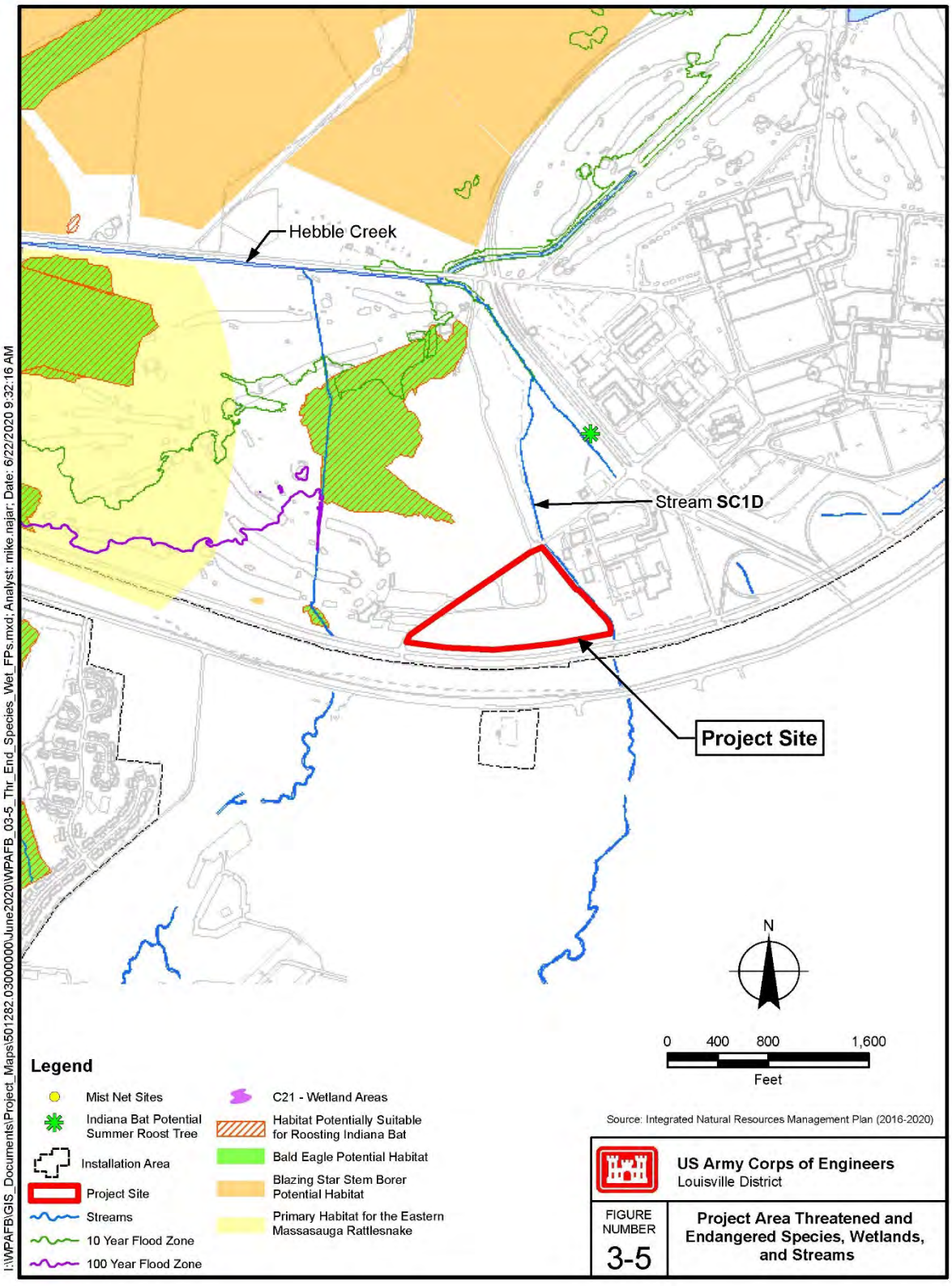
Table 3-5 State and Federal Listed Species Occurring at WPAFB

Common Name	Scientific Name	Status	
		Federal	State
Indiana Bat	*Myotis sodalis*	Endangered	Endangered
Northern Long-eared Bat	*Myotis septentrionalis*	Threatened	Threatened
Eastern Massasauga Rattlesnake (EMR)	*Sistrurus catenatus*	Threatened	Threatened
Clubshell	*Pleurobema clava*	Endangered	Endangered
Rayed Bean	*Villosa fabalis*	Endangered	Endangered
Snuffbox	*Epioblasma triquetra*	Endangered	Endangered
Tonguetied Minnow	*Exoglossum laurae*	Not Listed	Threatened
Spotted Turtle	*Clemmys guttata*	Not Listed	Threatened
Kirtland's Snake	*Clonophis kirtlandii*	Not Listed	Threatened
Upland Sandpiper	*Bartramia longicauda*	Not Listed	Endangered
Northern Harrier	*Circus cyaneus*	Not Listed	Endangered
Butternut	*Juglans cinerea*	Not Listed	Potentially Threatened
Great Plains ladies'-tresses	*Spiranthes magnicamporum*	Not Listed	Potentially Threatened
Whorled water milfoil	*Myriophyllum verticillatum*	Not Listed	Endangered

Source: WPAFB 2015, ODNR 2016, USFWS 2017

Habitat used by roosting Indiana bats is located approximately 1.86 miles northwest of the MILCON project site. In addition, a small wooded area located adjacent and north of the MILCON project area is noted as habitat potentially suitable for roosting Indiana bats; however, no bats have been captured in this area.

The eastern massasauga rattlesnake (EMR) is usually found in wet areas including wet prairies, marshes, and low-lying areas adjacent to higher foraging ground. Reports of EMR sightings at WPAFB are limited to the Warfighter Training Center (1 mile east of the project site) and Twin Base Golf Course (0.8 miles east of the project site) (WPAFB 2013). There was previously no requirement to survey WPAFB for potential habitat because the EMR was a federal candidate species prior to September 30, 2016; however, surveys have been conducted on Base and as close to the MILCON project site as the Twin Base Golf Course. No suitable habitat exists and/or no sightings have been reported on the project site for the EMR.


Hebble Creek
Stream SC1D
Project Site
N
0 400 800 1,600
Feet
Legend
Mist Net Sites
Indiana Bat Potential Summer Roost Tree
Installation Area
Project Site
Streams
10 Year Flood Zone
100 Year Flood Zone
C21 - Wetland Areas
Habitat Potentially Suitable for Roosting Indiana Bat
Bald Eagle Potential Habitat
Blazing Star Stem Borer Potential Habitat
Primary Habitat for the Eastern Massasauga Rattlesnake
Source: Integrated Natural Resources Management Plan (2016-2020)
US Army Corps of Engineers
Louisville District
FIGURE NUMBER
3-5
Project Area Threatened and Endangered Species, Wetlands, and Streams
I:\WPAFB\GIS_Documents\Project_Maps\501282.0300000\June2020\WPAFB_03-5_Thr_End_Species_Wet_FPs.mxd; Analyst: mike.najar; Date: 6/22/2020 9:32:16 AM

Potential habitat for the fish species (tonguetied minnow), mussels (clubshell, rayed bean, snuffbox), and turtle (spotted turtle) listed in **Table 3-5** could potentially be near a perennial stream or open body of water. Neither exists on the MILCON project site. In addition, no perennial stream or in-water work has been proposed for the MILCON project. Due the fact that established best management practices (BMPs) would be used throughout the duration of the design and construction, as well as the fact that compliance with EISA would be maintained, no damage is anticipated to habitat for compromised species after site development is complete. The intermittent stream, SC1D, receives much more runoff from off-base property. With the possible addition of storm water retention/detention basin(s) incorporated into the design, adverse impacts would be minimal. Therefore, no state or federal listed fish, mussels, or turtle species habitat would be expected to be impacted.

No federally-listed plant species are known to occur at WPAFB and no critical habitat for any plant species exist on Base. However, the plant species listed as threatened and/or endangered by the state of Ohio (i.e., butternut, Great Plains ladies'-tresses, and whorled water milfoil) exist at distances of 2.5 miles north of the project site, 4.5 miles northeast of the project site, and 2 miles northwest of the project site, respectively (WPAFB 2015). Therefore, these plant species are not representative on the MILCON project site and would not be impacted.

Wetlands/Streams/Jurisdictional Waters

Executive Order 11990, *Protection of Wetlands*, May 24, 1977, directs federal agencies to consider alternatives to avoid adverse effects on and incompatible development in wetlands. Federal agencies are directed to avoid new construction in wetlands, unless the agency finds there is no practicable alternative to construction in the wetland, and the proposed construction incorporates all possible measures to limit harm to the wetland.

The CWA sets the basic structure for regulating discharges of pollutants to U.S. waters. Section 404 of the CWA establishes a federal program to regulate the discharge of dredge and fill material into waters of the United States, including wetlands. The National Wetlands Inventory, a department within USWFS, USEPA, and the National Resource Conservation Service (NRCS) assist in identifying wetlands. Twenty-three wetlands and 13 streams exist in Area A (WPAFB 2015). The nearest wetland is located at a distance greater than 4,500 ft west of the MILCON project site.

The nearest stream, SC1D, is an unnamed intermittent stream that originates from a culvert pipe under State Route 444, flowing as a channelized stream and receiving runoff from adjacent upland areas. SC1D is reported to have a fairly stable streambed; however, areas have shown signs of erosion as evidenced by the buildup of sandy sediment deposits in downstream reaches of the stream. SC1D is characterized by a moderately diverse community of warm-water adapted native fauna either present seasonally or on an annual basis and during the summer months, have flowing water or isolated pools for extended periods of time (WPAFB 2010). SC1D flows in a northerly direction along the east proposed project site boundary (**Figure 3-4**).

3.5.3 Environmental Consequences

Biological resources that would potentially be impacted by the proposed project include vegetation, wildlife, threatened and endangered species, and wetlands. Evaluation criteria for impacts on biological resources are based on:

- Importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource;
- Proportion of the resource that would be affected relative to its occurrence in the region;
- Sensitivity of the resource to the proposed activities; and
- Duration of ecological ramifications.

The impacts on biological resources would be adverse if species or habitats of high concern are negatively affected over relatively large areas. Impacts are also considered adverse if disturbances cause reductions in population size or distribution of a species of high concern.

As a requirement under the ESA, federal agencies must provide documentation that ensures that agency actions do not adversely affect the existence of any threatened or endangered species. The ESA requires that all federal agencies avoid "taking" threatened or endangered species (which includes jeopardizing threatened or endangered species habitat). Section 7 of the ESA establishes a consultation process with USFWS that ends with USFWS concurrence or a determination of the risk of jeopardy from a federal agency project.

As part of this EA, consultation with the ODNR was conducted to request Ohio Natural Heritage Program information for state- and federally-listed threatened and endangered plants and animals in the vicinity of the MILCON project area. The ODNR responded indicating the Natural Heritage Database had the following records at or within a one-mile radius of the project area (**Appendix B**):

- Northern adder's-tongue (*Ophioglossum pusillum*), Threatened
- Beer's noctuid (*Papaipema beeriana*), Endangered
- Sedge wren (*Cistothorus platensis*), state species of concern
- Eastern massasauga (*Sistrurus catenatus*), Endangered, federal threatened

In addition, the ODNR indicated the Division of Wildlife (DOW) had the following comments:

- DOW recommends impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that BMPs be utilized to minimize erosion and sedimentation.

- Project is within the vicinity of the records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If no tree removal is proposed, this project Is not likely to impact this species.

- Project is within the range of the clubshell (*Pleurobema clava*), rayed bean (*Villosa fabalis*), and snuffbox (*Epioblasma triquetra*), state endangered and federally engendered mussels, the black sandshell (*Ligumia recta*) and the fawnsfoot (*Truncilla donacidormis*), state threatened mussels.

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

- Project is within the range of the tonguetied minnow (*Exoglossum laurae*), a state threatened fish. However, due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

- Project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. However, due to the location, type of habitat at the project site, and type of work proposed, this project is not likely to impact this species.

- Project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. However, due to the location, type of habitat at the project site and type of work proposed, this project is not likely to impact this species.

- Project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. However, due to the location, type of habitat at the project site, and type of work proposed, this project is not likely to impact this species.

- Project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. If dry grasslands (i.e., seeded grasslands, grazed and ungrazed pasture, hayfields, and/or grassland) would be impacted, construction should be avoided in this habitat during this species' nesting period of April 15 to July 31. If this type of habitat would not be impacted, this project is not likely to impact this species.

- Project is within the range of the northern harrier (*Circus cyaneus*), a state endangered bird. Harriers often nest in loose colonies; the female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grassland. If this type of habitat would be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 to August 1. If this habitat would not be impacted, this project is not likely to impact this species.

The USFWS was also contacted as part of this EA to request known presence of federal- and state-listed species that may be located within the MILCON project area vicinity. The USFWS responded indicating there are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. In addition, the USFWS indicated that due to the project type, size, and location, the USFWS does not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. However, consultation with the USFWS should be re-initiated to assess potential impacts should the project design change, or during the term of the action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered. Correspondence with the USFWS is presented in **Appendix B**.

3.5.3.1 Proposed Action

Vegetation

Land-disturbing activities associated with construction of the MILCON facilities would be limited to previously-disturbed vegetation. Short-term minor adverse impacts and localized effects on vegetation would be expected. Disturbed areas on the MILCON project site would be re-vegetated as needed.

Wetlands/Streams/Jurisdictional Waters

No impacts to wetlands or streams would occur from implementation of the Proposed Action because these waters are not located within the project area, were identified at distances greater than 3,000 ft from the MILCON project site, and/or would not be impacted. Therefore, no effects to wetlands, streams, or jurisdictional waters are expected as a result of the Proposed Action.

Wildlife

Wildlife habitat within the improved areas of the Base is limited due to fragmentation by the existing facilities, roads, and impervious surfaces at WPAFB. In addition, the current land use would not change and the proposed construction activities would not be in proximity to any threatened or endangered species identified on the Base. Therefore, noise-related impacts from proposed demolition and construction activities would be short-term and negligible. Furthermore, no long-term impacts on wildlife would be expected to result from the Proposed Action.

Threatened and Endangered Species

The proposed MILCON project site is located in a previously-disturbed grass- and tree-covered lawn area. In addition, a portion of the project site contains Gate 16A. There would be a negligible impact on threatened and endangered species or species of concern, and potentially threatened species as a result of construction activities associated with the Proposed Action because no threatened or endangered species have been documented on the project site and no habitat exists on the project site. In addition, USAR and WPAFB would coordinate with the USFWS prior to removal of any trees on the proposed project site. For every tree that is removed from the MILCON project site, two trees would be planted on the Base at a location selected in coordination with the WPAFB Natural Resources Program Manager.

3.5.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.5.2, would remain the same. Therefore, there would be no short- or long-term impacts because existing vegetation would not change over baseline conditions. There would also be no changes in wildlife habitat, land use, or sources of noise disturbance to threatened or endangered species over baseline conditions. No wetlands exist on or near the proposed MILCON site.

3.5.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative projects listed in **Table 3-1** would not adversely affect biological resources because construction and/or renovation projects are located within areas on Base that involve previously-developed and/or disturbed areas.

3.6 Earth Resources

3.6.1 Definition of the Resource

Geological resources consist of the earth's surface and subsurface materials. Topography pertains to the general shape and arrangement of a land surface, including its height and the position of its natural and human-made features.

Geology is the study of the earth's composition and provides information on the structure and configuration of surface and subsurface features. Hydrogeology extends the study of the subsurface to water-bearing structures. Hydrogeological information helps in the assessment of groundwater quality and quantity and its movement.

Soils are the unconsolidated materials overlying bedrock or other parent material. Soils typically are described in terms of their complex type, slope, and physical characteristics. Differences among soil types in terms of their structure, elasticity, strength, shrink-swell potential, and erosion potential affect their abilities to support certain applications or uses.

3.6.2 Affected Environment

Topography and Geology

The majority of the Base is on the broad alluvial plain of the Mad River Valley, which overlies Ordovician-age Richmond shale and limestone bedrock. The land surface elevation on Base ranges from approximately 760 to 980 ft above MSL (WPAFB 2015).

The Base is within the glaciated till plain region of southwestern Ohio, an area within the Central Lowlands Physiographic Province. The Central Lowlands province is characterized by low rolling hills, level plains, and flat alluvial valleys.

Natural Hazards

The state of Ohio is characterized by a low level of seismic activity (ODNR 2010). The Dayton, Ohio, area does not typically experience earthquakes because of its location in relation to fault zones (Hansen 2015). Auglaize and Shelby counties located in northwest Ohio (approximately 45 miles from Greene County) had a series of historic earthquakes in the late 1800s to mid-1900s, with the greatest instrumented magnitude recorded between 5.0 and 5.4 (Hansen 2015). On July 23, 2010, a 5.0 magnitude earthquake originating along the Quebec-Ontario border was felt in Dayton and surrounding areas.

Soils

Surface soil at WPAFB formed on unconsolidated deposits, primarily alluvium, glacial outwash, glacial till, and loess (WPAFB 2015). Development and substantial earthmoving activities have altered the natural soil characteristics at WPAFB, making precise classifications difficult. The U.S. Department of Agriculture (USDA) NRCS mapped most of WPAFB as urban land complexes.

Forty soil mapping units occur on WPAFB. Warsaw-Fill land complex is the most common soil unit on Base and occurs on 1,326 acres. This soil is found in the northeast portions of the Base. The second most common soil occurring on the Base is the Sloan-Fill land complex. This soil is found in the northern portions of the Base and covers approximately 1,232 acres. Approximately one-half of the soils on Base have a moderate to high potential for erosion. The potential for erosion varies with topographic conditions and includes both disturbed urban land complex soils and natural loams. Bare soil leads to erosion, creation of gullies and rills, and increased sediment load in streams. Erosion can render land unsuitable for training and impassable by vehicles. Sediment in streams may affect water flow and the survival of aquatic organisms.

Sixteen soil types on WPAFB are designated as prime farmland soils. Most of these soils are loams located in the northeastern and southwestern portions of the Base. Soil type in the MILCON project area consists of the Sloan-Fill complex (USDA 1978), which is not considered prime or unique farmland. Sloan-Fill is made up of nearly level soil on flood plains where as much as 50 percent of the original soil has been covered by fill. The main area of this complex is on WPAFB. It is specifically in runways, taxiways, and land adjacent to these uses. The fill areas typically are 3 to 5 ft deep. The fill material is generally mineral soil, organic material, and other inorganic debris from various sources (USDA 1978).

3.6.3 Environmental Consequences

Protection of unique geological features, minimization of soil erosion, and the siting of facilities in relation to potential geologic hazards are considered when evaluating potential impacts of a proposed action on geological resources. Impacts can be avoided or minimized if proper construction techniques, erosion control measures, and structural engineering design are incorporated into project development.

Effects on geology and soils would be adverse if the action alters the lithology, stratigraphy, and geological structure that control groundwater quality, distribution of aquifers and confining beds, and groundwater availability; or change the soil composition, structure or function within the environment.

3.6.3.1 Proposed Action

Land surface at the MILCON project site is relatively flat. Minor excavation activities would likely be performed during initial construction start-up at the MILCON project site. Soil erosion would be minimized during construction activities using BMPs in accordance with the Phase I NPDES stormwater discharge permit.

Any spills of hazardous chemicals, materials entering sewers or drains, and/or releases of materials that have the potential to damage or pollute the environment would be reported to the Base Fire Department by calling 911 or calling the WPAFB Fire Dispatch.

In the short term, construction vehicles would disturb the surface and compaction would be altered. Minor, short-term impacts would be minimized by implementing BMPs to control erosion and

sedimentation. There would be no long-term adverse impacts because disturbed vegetation would be re-established upon completion of construction activities.

3.6.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.6.2, would remain the same. The site would remain vacant. There would be no soil alteration or disturbance of soil or vegetation from construction, excavation, grading, or fill activities. Therefore, there would be no short- or long-term impacts because there would be no change to existing soils over baseline conditions.

3.6.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative actions related to the ECP/Gate 15A Renovation, ECP 1A Renovation, and Repair Roads Basewide projects (listed in **Table 3-1**) would result in temporary disturbed ground surfaces and short-term, minor, adverse impacts on earth resources. Although soils would be disturbed by earthmoving and other construction activities, any effects would not be expected to exceed individual project boundaries and would not result in significant impacts on earth resources because BMPs, erosion and sediment controls and other management measures would be implemented. Cumulative long-term impacts to soils would be minimized because disturbed surfaces at each site would either be paved or restored with vegetative cover.

3.7 Hazardous Materials / Waste

3.7.1 Definition of the Resource

AFPD 32-70, *Environmental Quality*, establishes policy the AF is committed to, including:

- Cleaning up environmental damage resulting from its past activities
- Meeting all environmental standards applicable to its present operations
- Planning its future activities to minimize environmental impacts
- Managing responsibly the irreplaceable natural and cultural resources it holds in public trust
- Eliminating pollution from its activities wherever possible

The term, “hazardous materials” and “hazardous waste” refer to substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA). Hazardous materials refers to any item or agent (biological, chemical, or physical) that has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. A complete list of federally recognized hazardous substances with reportable quantities is provided in 40 CFR § 302.4. Substances not on this list may be considered hazardous according to their ignitability, corrosivity, reactivity, or toxicity as defined by 40 CFR § 261.20-24.

Evaluation of hazardous materials and wastes focuses on underground storage tanks (USTs) and aboveground storage tanks (ASTs) and the storage, transport, and use of pesticides and herbicides, fuels,

and POLs. Evaluation might also extend to generation, storage, transportation, and disposal of hazardous wastes when such activity occurs at or near the project site of a proposed action. In addition to being a threat to humans, the improper release of hazardous materials and wastes can threaten the health and well-being of wildlife species, botanical habitats, soil systems, and water resources. In the event of release of hazardous materials or wastes, the extent of contamination varies based on type of soil, topography, and water resources.

Special hazards are those substances that might pose a risk to human health, but are not regulated as contaminants under the hazardous waste statutes. Included in this category are ACM, radon, LBP, PCBs, and unexploded ordnance. The presence of special hazards or controls over them might affect, or be affected by, a proposed action. Information on special hazards describing their locations, quantities, and condition assists in determining the significance of a proposed action.

The Toxic Substances Control Act (TSCA) of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. The Solid Waste Disposal Act as amended by RCRA, which was further amended by the Hazardous and Solid Waste Amendments, defines hazardous wastes. In general, both hazardous materials and wastes include substances that, because of their quantity, concentration, physical, chemical, or infectious characteristics, might present substantial danger to public health or welfare or the environment when released or otherwise improperly managed.

Through its Environmental Restoration Program (ERP), the DoD evaluates and cleans up sites where hazardous wastes have been spilled or released to the environment. The ERP provides a uniform, thorough methodology to evaluate past disposal sites, to control the migration of contaminants, to minimize potential hazards to human health and the environment, and to clean up contamination.

Knowledge of past ERP activities provides a useful gauge of the condition of soils, water resources, and other resources that might be affected by contaminants. It also aids in identification of properties and their usefulness for given purposes (e.g., activities dependent on groundwater usage might be foreclosed where a groundwater contaminant plume remains to complete remediation).

Executive Order 13834, *Efficient Federal Operations*, replaced EO 13693, *Planning for Federal Sustainability in the Next Decade*, which was revoked in May 2018. Under EO 13834, "agencies shall meet such statutory requirements in a manner that increases efficiency, optimizes performance, eliminates unnecessary use of resources, and protects the environment. In implementing this policy, each agency shall prioritize actions that reduce waste, cut costs, enhance the resilience of Federal infrastructure and operations, and enable more effective accomplishment of its mission". One of the goals of EO 13834 is to implement waste prevention and recycling measures and comply with all Federal requirements with regard to solid, hazardous, and toxic waste management and disposal. WPAFB's goal is to meet a 60 percent construction and demolition debris (c&dd) diversion rate for construction and demolition projects

that occur on Base. In order to achieve the 60 percent diversion goal, reclamation and recycling would have to be considered.

The OEPA, Division of Materials and Waste Management (DMWM) ensures solid waste, infectious waste, scrap tires, and construction and demolition debris are managed in accordance with applicable regulations. The DMWM contains a current listing of licensed municipal solid waste facilities on its website (OEPA 2018). Any construction or demolition projects that would occur at WPAFB would be handled by contractors bidding on projects that would select a licensed municipal solid waste facility from the list and any c&dd would be diverted to one of the facilities on the list.

There are five licensed landfills within a 35-mile radius of WPAFB. The Compliance Section of the Environmental Branch (CEIEC) recently contacted the Greene County Demolition Landfill in Xenia, Ohio that verified the facility has remaining capacity at their facility. The facility recently had a survey performed which would verify the exact cubic feet of remaining capacity at this facility; results of this survey are pending. However, taking into consideration the requirement for diversion and the amount of landfills in the area for c&dd waste, there would be minor impacts to the capacities of the landfills in the area.

3.7.2 Affected Environment

Hazardous Materials

AFI 32-7086, *Hazardous Materials Management*, establishes procedures and standards that govern management of hazardous materials throughout the AF. It applies to all AF personnel who authorize, procure, issue, use, or dispose of hazardous materials, and to those who manage, monitor, or track any of those activities. The Base utilizes a hazardous material management program (HMMP) through which hazardous materials are controlled from procurement through storage and issue to disposal. All hazardous material purchases are approved by the HAZMAT Cell (WPAFB 2018a). The HAZMAT Cell is a decentralized unit comprised of representatives from the Environmental Branch, Safety Division, Bioenvironmental Engineering Flight, and Logistics Readiness Division (LRS).

The Installation Management Division Environmental Branch supports and monitors environmental permits, hazardous material and hazardous waste storage, spill prevention and response, and participation on the Environmental Safety and Occupational Health Council (ESOHC). The Environmental Management System Cross Functional Team (EMS CFT) is a network of safety, environmental and logistics experts who work with hazardous material Issue Point Managers, Unit Environmental Coordinators (UECs), and other hazardous material users to ensure safe and compliant hazardous material management throughout the Base (WPAFB 2019).

Hazardous Waste

The 88 Civil Engineer Group (CEG) maintains a Hazardous Waste Management Plan (WPAFB 2019) as directed by AFI 32-7042, *Solid and Hazardous Waste Compliance*. This plan prescribes the roles and

responsibilities of all members of WPAFB with respect to the waste stream inventory, waste analysis plan, hazardous waste management procedures, training, emergency response, and pollution prevention. The plan establishes the procedures to comply with applicable federal, state, and local standards for solid waste and hazardous waste management.

WPAFB is already classified as a large quantity generator, and is responsible for stringent management and reporting requirements. During construction, fueling activities would create the potential for minor spills and releases. The construction contractor would be required to comply with BMPs to reduce the potential for spills, and ensure quick clean up. Management of hazardous waste is the responsibility of each waste-generating organization and the 88 CEG/CEIEC.

Stored Fuels

Stored fuels present a potential threat to the environment, which is mitigated at WPAFB through the SPCC Plan. The WPAFB SPCC Plan describes practices used to minimize the potential for stored fuel spills, prevent spilled materials from migrating off the base, and ensure that the cause of any spill is corrected. The WPAFB Facility Response Plan (FRP) describes emergency planning, notification, and spill response practices. Collectively, the SPCC Plan, with a focus on spill prevention, and the FRP, with a focus on spill response, provides a comprehensive strategy for preventing stored fuel releases to the environment. The SPCC and FRP have been combined into a single source document, which is identified at WPAFB as the Integrated Contingency Plan (ICP) (WPAFB 2018b, WPAFB 2019).

The Spill Prevention Coordinator (SPC) is the primary point of contact for the SPCC Program. The SPC works closely with Tank Managers, UECs, and WPAFB emergency response personnel to implement the SPCC Plan. Required SPCC training, standard operating procedures (SOPs), inspections, and record keeping are coordinated by the SPC.

Each organization, shop, or activity at WPAFB that handles or stores POLs, hazardous materials, or hazardous waste is required to have a Site-Specific Spill Plan (SSSP). These SSSPs are filed with the 88 CEG/Environmental Compliance Section of the Environmental Branch (CEIEC) SPC. The WPAFB Fire Department is the first responder if spilled materials present a fire hazard, may reach a waterway, or present a situation beyond the capability of the spilling activity to control and clean up the spilled material.

The expected number of fuel tank trucks (approximately 27) that would be staged on the MILCON project site would be stored ‘dry’ and driven off-site (off WPAFB property) to a mission site (i.e., Camp Atterbury, Fort McCoy) where the fuel tank trucks would be filled with fuel and used for training purposes. The fuel tank trucks would return to the WPAFB MILCON project site ‘dry’ and staged until future use. An SPCC plan would not be required for refueling operations because the fuel tank trucks at WPAFB would remain empty while staged at WPAFB. No refueling would take place at the proposed USAR location.

Pesticides

The following herbicides have been applied in the area of the MILCON project site: Prodiamine, Glyophosphate, Isopropylamine, and 2,4-D, Dicamba. These herbicides are commonly applied along fence lines on Base for weed control. All applications are completed in accordance with applicable federal regulations. The adjacent and west golf course uses pesticides, herbicides, and rodenticides; however, no inappropriate use, storage, or application has been identified.

Asbestos-Containing Materials

Air Force Instruction 32-1052, *Facilities Asbestos Management,* provides the direction for asbestos management at AF installations. This instruction incorporates by reference applicable requirements of 29 CFR 669 et seq. 29 CFR 1910.1025, 29 CFR 1926.58, 40 CFR 61.3.80, Section 112 of the CAA, and other applicable AFIs and DoD Directives. Air Force Instruction 32-1052 requires bases to develop an Asbestos Management Plan to maintain a permanent record of the status and condition of ACM in installation facilities, as well as documenting asbestos-management efforts. In addition, the instruction requires installations to develop an asbestos operating plan detailing how the installation accomplishes asbestos-related projects. Asbestos is regulated by the USEPA with the authority promulgated under the OSHA, 29 USC 669, et seq. Section 112 of the CAA regulates emissions of asbestos fibers to ambient air. The USEPA policy is to leave asbestos in place if disturbance or removal could pose a health threat.

An ACM survey for Gate 16A was conducted in 2017 (Tetra Tech 2017). Five areas were sampled in the Gate 16A office space; all samples were reported negative for asbestos. **Table 3-6** presents a summary of surveyed areas and analytical results.

Table 3-6 ACM Sample Results for Gate 16A

Gate 16A ACM Sampling Results				
Date Sampled	Material	Sample Location	Friable / Non-Friable	Sample Results
August 23, 2016	Grey Floor Tile and Yellow Mastic	Office	Non-Friable	Negative
August 23, 2016	Grey Cove Base and Tan Mastic	Office	Non-Friable	Negative
August 23, 2016	White Ceiling Tile	Office	Friable	Negative
August 23, 2016	White Drywall and White Joint Compound	Office	Friable	Negative
August 23, 2016	White Wallboard Mastic	Office	Non-Friable	Negative

Source: Tetra Tech 2017

Lead-Based Paint

The Residential Lead-Based Paint Hazard Reduction Act of 1992, Subtitle B, Section 408 (commonly called Title X), passed by Congress on October 28, 1992, regulates the use and disposal of LBP on federal facilities. Federal agencies are required to comply with applicable federal, state, and local laws relating to LBP activities and hazards.

The AF policy and guidance establishes LBP management at AF facilities. The policy incorporates, by reference, the requirements of 29 CFR 1910.120, 29 CFR 1926, 40 CFR 50.12, 40 CFR 240 through 280,

the CAA, and other applicable federal regulations. Additionally, the policy requires each installation to develop and implement a facility management plan for identifying, evaluating, managing, and abating LBP hazards.

Environmental Restoration Program

The ERP, formerly the Installation Restoration Program (IRP), is a subcomponent of the Defense Environmental Restoration Program that became law under the Superfund Amendments and Reauthorization Act. The ERP requires each DoD installation to identify, investigate, and clean up hazardous waste disposal or release sites. The Base began its IRP in 1981 with the investigation of possible locations of hazardous waste contamination. In 1988, WPAFB entered into an Ohio Consent Order with the OEPA. In October 1989, WPAFB was placed on the USEPA's National Priorities List, a list of sites that are considered to be of special interest and require immediate attention.

The Base has identified 73 ERP sites, two regional groundwater sites, and several areas of concern per the Air Force Restoration Information Management System. The Base has grouped the majority of confirmed or suspected sites requiring investigation and characterization in 11 geographically-based OUs, designated as OUs 1 through 11 (IT 1999). In addition to the 11 OUs, WPAFB addressed base-wide issues of groundwater and surface water contamination by creating the GWOU under the Basewide Monitoring Program. The GWOU is monitored by agreement with the OEPA and USEPA under the LTM Program. Principal groundwater contaminants beneath WPAFB include benzene, toluene, ethylbenzene, xylene, trichloroethene, and tetrachloroethene (WPAFB 2007). Water resources concerns are addressed under Section 3.4 of this EA.

The MILCON project site is not located within any operable units. However, one OU and five ERP sites are located in the vicinity of the proposed MILCON project site. **Table 3-7** presents a summary of the OU site adjacent to the MILCON project site and a description of the ERP sites.

LF7 is located within 300 ft north of the MILCON project site. Therefore, a Rule 13 application for soil disturbing activities would be required to be submitted to the OEPA prior to construction activities at the MILCON site. A road also separates the MILCON project site and northern property boundary from LF7. **Figure 3-6** presents the location of LF7 located north of the MILCON project site.

3.7.3 Environmental Consequences

Impacts to hazardous material management would be considered adverse if the federal action resulted in noncompliance with applicable federal and state regulations, or increased the amounts generated or procured beyond current WPAFB waste management procedures and capacities.

Table 3-7 ERP Sites in the Vicinity of the MILCON Project Site

Operable Unit	ERP Site(s)	ERP Description	Allowable Land Use*
OU4	Landfill (LF) 3	Historical landfills in operation from the 1940s through the 1960s; located north of Subject Property.	1
	LF4		1
	LF6		1
	LF7		1
	Central Heating Plant 2 (CHP2)	CHP2 operated from the 1940s until 1980 when the plant shut down as part of the heating plant consolidation. In 1996, elemental mercury was observed in a sewer pipe that was accidentally broken during excavation work; the spill was remediated and a risk assessment was performed with results indicating concentrations did not exceed regulatory action limits (WPAFB 1998).	3

* 1 = No digging, building, construction, etc. or otherwise disturbing landfill cover; 2 = Digging, construction, and other soil disturbances allowable after approval by Civil Engineer (CE) and Environmental Management personnel; 3 = Must check with Environmental Management Division prior to drilling or otherwise accessing groundwater; 4 = Unrestricted Use (WPAFB 2012b).

Impacts on pollution prevention would be considered adverse if the federal action resulted in worker, resident, or visitor exposure to these materials, or if the action generated quantities of these materials beyond the capability of current management procedures. Impacts on the ERP would be considered adverse if the federal action disturbed (or created) contaminated sites resulting in negative effects on human health or the environment.

3.7.3.1 Proposed Action

Hazardous Materials

Products containing hazardous materials would be procured and used during construction activities of USAR facilities. It is anticipated that the quantity of products containing hazardous materials used during these activities would be minimal and their use would be of short duration. No hazardous materials, other than those typically associated with construction projects, are expected as a result of the Proposed Action.

Construction of USAR buildings and parking areas would require the use of hazardous materials such as petroleum products, sealants, and paints. These materials are currently used at WPAFB. WPAFB would continue to manage the storage, use, and disposal of construction materials in accordance with current practices and management schemes. Materials would be stored in containers that meet federal, state and local requirements. Secondary containment systems would be employed as necessary to prevent or limit accidental spills.

Legend

- MILCON Project Area
- Former Munitions Site
- IRP Sites
- Installation Boundary
- Fence

N

2,000 1,000 0

Feet

US Army Corps of Engineers
Louisville District

Environmental Assessment Military
Construction of U.S. Army Reserve Facilities

FIGURE NUMBER 3-6

ERP AND MMRP SITES IN THE PROJECT AREA

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Contractors would be responsible for the management of hazardous materials, which would be handled in accordance with federal and state regulations. All original hazardous, toxic, recyclable, and otherwise regulated waste streams generated and identified by the Contractor would be managed through the Environmental Branch of Civil Engineering in accordance with the WPAFB Hazardous Waste Management Plan (WPAFB 2019). Therefore, hazardous materials management would not be impacted by construction of USAR facilities.

Once operational, it is anticipated that the hazardous materials to be used at the proposed MILCON site would primarily consist of items needed for vehicle maintenance. The current chemical inventory of the types and quantities of hazardous materials used by AMSA 58 would be similar to the materials expected to be used at the proposed MILCON project site. These materials include antifreeze; POLs, paints, and cleaners.

The tankers used during training are to be purged after training. After the tanker is purged, it is possible that residual fuel would be present in the pump and hose equipment. The residual amount would be estimated to be less than 5 gallons.

All hazardous materials storage locations are equipped with emergency response procedures and site-specific contingency plans established by WPAFB. Any significant change in the quantity of hazardous materials stored on Base during construction and/or operation of the USAR facilities would be recorded and reported to local emergency planning committees and local fire departments. The USAR facility would be incorporated into the SPCC Plan for WPAFB.

Hazardous Wastes

It is anticipated that the quantity of hazardous wastes generated from proposed construction activities would be similar in nature with the baseline condition waste streams. Construction of USAR facilities would not impact the Base's hazardous waste management program. As mentioned above, known hazardous wastes identified and encountered by contractors during construction would be managed through the Environmental Branch of Civil Engineering in accordance with the WPAFB Hazardous Waste Management Plan (WPAFB 2019).

Hazardous waste would be handled, stored, transported, disposed of, or recycled in accordance with the WPAFB Hazardous Waste Management Plan (WPAFB 2019). Therefore, it is anticipated that hazardous wastes used during construction activities would not be expected to increase over existing conditions.

In addition, hazardous wastes generated by USARC activities would be managed in accordance with applicable Base, Ohio and federal regulations. Most vehicle and facility related wastes generated are expected to be exempt, under 40 CFR 372.38(c)(2) or (4), 40 CFR 261.9 or OAC 3745-01. Wastes generated by unit activities and AMSA activities would include used oil, used antifreeze, and used oil filters.

All hazardous waste storage locations are equipped with emergency response procedures and site-specific contingency plans established by WPAFB. Any significant change in the quantity of hazardous waste stored on Base during construction and/or operation of the USAR facilities would be recorded and reported to local emergency planning committees and local fire departments.

Stored Fuels

No short-or long-term impacts to stored fuels would be expected because no fuels would be stored on the MILCON project site. The expected number of fuel tank trucks (approximately 27) that would be staged on the MILCON project site would be stored 'dry' and driven off-site (off WPAFB property) to a mission site (i.e., Camp Atterbury, Fort McCoy) where the fuel tank truck would be filled with fuel and used for training purposes. The fuel tank truck would return to the WPAFB MILCON project site 'dry' and staged until future use. Therefore, no adverse impact to stored fuels would be expected from the fuel tank trucks.

ACM and LBP

No impact from ACM in Gate 16A because a survey was performed that resulted in negative laboratory analytical for asbestos. Therefore, no impact to ACM would be expected. Surveys for LBP in the structures on the MILCON project site has not been documented. However, LBP would be documented prior to demolition of the structures by WPAFB. Therefore, there would be no impact to LBP as a result of the Proposed Action.

Environmental Restoration Program

No short-term adverse impact would be expected to ERP sites in the vicinity of the proposed MILCON project site because a Rule 13 application would be submitted to the OEPA prior to soil disturbing activities. In addition, BMPs would be implemented on the MILCON project site during soil disturbing activities that would include, but would not be limited to the following measures: silt and/or sediment fencing, rock check dams, temporary seeding, storm drain inlet protection, dust control, and sediment basins. These BMPs, combined with the OEPA Rule 13 application, would provide avoidance measures for impacts to LF7, which is within 300 ft of the proposed MILCON project site. In addition, no design for USAR roadways on the MILCON project site has been drafted. However, BMPs would be implemented to avoid impact to the 300 ft LF7 buffer. No long-term impact would be expected to ERP sites as a result of implementing the Proposed Action.

3.7.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.7.2, would remain the same. The proposed site is currently vacant and there are no hazardous materials or wastes being used, generated, stored, or disposed. Therefore, there would be no short- or long-term impacts because there would be no changes in existing hazardous materials/waste usage over baseline conditions. In addition, there would be no ground disturbance in the vicinity of nearby ERP sites.

3.7.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative projects listed in **Table 3-1** would not have an adverse effect on hazardous materials or wastes because quantities generated cumulatively from the MILCON project and other projects would be similar in nature. Construction of USAR facilities in conjunction with the other projects would not impact the Base's hazardous waste management program because hazardous materials and wastes would be handled, stored, transported, disposed of, or recycled in accordance with the WPAFB Hazardous Waste Management Plan (WPAFB 2019). All hazardous materials and wastes would be managed in accordance with applicable Base, Ohio and federal regulations.

3.8 Cultural Resources

3.8.1 Definition of the Resource

As defined by 36 CFR 800.16, historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to a Native American tribe or Native Hawaiian organization and that meet the NRHP criteria. Several federal laws and regulations govern protection of cultural resources, including the National Historic Preservation Act (NHPA) (1966), the Archaeological and Historic Preservation Act (1974), the American Indian Religious Freedom Act (1978), the Archaeological Resources Protection Act (1979), and the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.

Native American tribes define cultural resources very broadly as the resources necessary for the survival and maintenance of their way of life. Ethnographic resources include plants and animals, ceremonial sites, tribal historic sites, and areas of sacred geography possessing mythic/spiritual significance. In 2008, WPAFB conducted a review of the on-line National Park Services NAGPRA Native American Consultation Database for federally recognized tribes in Greene and Montgomery counties of Ohio in addition to tribal response received from a public notice the USACE issued for a 2007 project at the Base. A query of the tribes was made and only four tribes (Sac and Fox of the Mississippi in Iowa, Keweenaw Bay Indian Community, The Saginaw Chippewa Indian Tribe, and United Keetoowah Band of Cherokee Indians in Oklahoma) provided a written response with interest in WPAFB in regard to receiving Section 106 notifications.

In 2016, in preparation for a government-to-government meeting in accordance with specific meeting requirements of the present AFI, an affiliation study for WPAFB was conducted and identified three additional tribes (Cherokee Nation, Seneca Nation of Indians, and Seneca Cayuga Tribe of Oklahoma) that stated interest in WPAFB. The United Keetoowah Band of Cherokee Indians in Oklahoma stated, in consultation for that affiliation study, that they have no interest in WPAFB and requested no future consultation.

In May 2016, a government-to-government tribal meeting was held at WPAFB with six tribes participating. In March 2017, the Cherokee Nation requested no further consultation due to WPAFB being outside of their immediate historic interest (copy of Cherokee Nation's request included in **Appendix B**). Therefore, the following five tribes have interest at WPAFB:

- Sac and Fox of the Mississippi in Iowa
- Keweenaw Bay Indian Community
- Saginaw Chippewa Indian Tribe
- Seneca Nation of Indians
- Seneca Cayuga Tribe of Oklahoma

An *Installation Tribal Relations Plan* (ITRP) was developed to outline the approach that WPAFB personnel will use to establish and maintain long-term relationships with federally-recognized tribes (WPAFB 2017). The intention of AFI 90-2002, *Air Force Interaction with Federally-Recognized Tribes*, (9 November 2014) as well as DoD Instruction 4710.02, *DoD Interactions with Federally-Recognized Tribes*, is to build relationships with tribes where Air Force activities might affect protected tribal resources, tribal rights, or Indian lands. The ITRP describes how WPAFB has identified federally-recognized tribes with interests/concerns on installation lands; specific details on how the installation plans to address areas of concern for tribes; how the installation plans to maintain tribal relationships, communications, and meetings; a standard process for consultation whenever issues arise between tribes and the installation; and a standard process for conducting NHPA Section 106 consultations. The ITRP was signed on March 14, 2016 by the designated AF government-to-government points of contact for tribal affairs: the Installation Tribal Liaison Officer (Chief, Environmental Branch) and the Commander Designated Installation Representative (Director, 88th Civil Engineer Group).

Typically, cultural resources are subdivided into archeological resources (prehistoric or historic sites where human activity has left physical evidence of that activity but no structures remain standing) or architectural resources (buildings or other structures or groups of structures, or designed landscapes that are of historic or aesthetic significance). Archaeological resources comprise areas where human activity has measurably altered the earth or deposits of physical remains are found (e.g., arrowheads and bottles).

Architectural resources include standing buildings, bridges, dams, and other structures of historic or aesthetic significance. Generally, architectural resources must be more than 50 years old to be considered for the NRHP. More recent structures might warrant protection if they have potential as Cold War-era resources. Structures less than 50 years in age, and particularly DoD structures in the category of Cold War-era, are evaluated under explicit guidance of the National Park Service Bulletin 22.
The Base is obliged to consider the effects of demolition or construction for alteration of any historic property. In doing so, WPAFB must first define the Area of Potential Effect (APE). According to 36 CFR § 800.16(d), the APE is defined as:

The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking.

In accordance with Section 106 of the NHPA, determinations regarding potential effects of an undertaking on historic properties are presented to the SHPO.

3.8.2 Affected Environment

The Base owns over 250 historic buildings, several that are individually eligible for inclusion on the NRHP and most of which are located in one of three NRHP-eligible historic districts. WPAFB contains no traditional cultural properties or sacred sites as defined by a federally recognized tribe or tribal leader.

Based on a review of the WPAFB *Integrated Cultural Resources Management Plan* (ICRMP), the MILCON project site is not located in an area of known prehistoric archaeological resources and no historic facilities would be affected by the proposal to construct the USAR facilities.

Based on a review of available historic documents, the former commercial truck inspection facility (F/11465) was constructed in 2006. In the 1970s and early 1980s, three structures, (presumably associated with former barracks) existed in the middle portion of the project site. From approximately 1949 until 1970, barracks were located on the project site and on the adjacent and east property. Prior to 1949, the project site was undeveloped. Therefore, the project site contains no historical significance.

3.8.3 Environmental Consequences

Adverse impacts on cultural resources might include physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or audible elements that are out of character with the property or alter its setting; neglecting the resource to the extent that it deteriorates or is destroyed; or the sale, transfer, or lease of the property out of agency ownership (or control) without adequate legally enforceable restrictions or conditions to ensure preservation of the property's historic significance.

3.8.3.1 Proposed Action

The most relevant impacts to cultural resources at WPAFB would be related to any potential alteration activities as a result of the Proposed Action. The proposed project area is currently a grass- and tree-covered maintained lawn area with no known prehistoric archaeological resources identified in the project area or vicinity.

The SHPO was contacted regarding the undertaking's effects on historic properties. The SHPO responded indicating it is their opinion that the proposed project would have no adverse effect on historic properties at WPAFB and that no further coordination is necessary unless there are changes in the proposed project (**Appendix B**).

Additionally, according to the WPAFB Cultural Resources Manager (CRM), Native American tribes typically consulted for EAs conducted at WPAFB (Keweenaw Bay Indian Community, Sac and Fox of the Mississippi in Iowa, Saginaw Chippewa Indian Tribe, Oklahoma Seneca Cayuga Nation, and Seneca Nation of Indians) only request notification when an action involves ground disturbance or when construction on-Base involves areas of previously undisturbed ground. Since the MILCON project area is considered to be located in an area of previous ground disturbance, consultation with the above-referenced Native American tribes would not be required (i.e., the project site was known to contain barracks [Soldier housing] from the late 1940s until the early 1980s).

A *Memorandum for Record*, dated May 2, 2018, indicates documentation efforts with five tribes (Keweenaw Bay Indian Community, Sac and Fox of the Mississippi in Iowa, Saginaw Chippewa Indian Tribe, Seneca Cayuga Tribe of Oklahoma, Seneca Nation of Indians) that have historically shown an interest in undertakings at WPAFB. The memo highlights three points:

1. Initial responses for all consultations with the tribes were no response and/or Tribal Historic Preservation Officer had no issues with projects.

2. Two follow-up phone calls were made at various times, with the most recent on May 2, 2018, since several undertakings (memo includes a total of five proposed projects) were initially sent to the Tribal Historic Preservation Officers a couple years ago.

3. The tribes reiterated that they have small staffs and an enormous amount of correspondence letters and would prefer consultation only on matters concerning the Adena Mounds or inadvertent discoveries as noted in the 2018 Installation Tribal Relations Plan.

As such, this concludes tribal consultation under Section 106 and no further consultation is considered required for the MILCON proposal. Copies of correspondence with the SHPO and consultation with the Native American Tribes are presented in **Appendix B**.

WPAFB has an ITRP in place with five tribes listed in Section 3.8.1; a government-to-government tribal meeting was held in May 2016 with representatives of each of the five tribes plus a sixth tribe representative from Cherokee Nation who in May 2017 requested in writing that no future consultation was warranted due to WPAFB being out of their immediate historic interest. At the May 2016 meeting, the tribes all agreed that the Section 106 process would be completed by the WPAFB CRM by sending letters via a group email (**Appendix B**) to the tribal historic points of contact (this on page 2 of the ITRP). The ITRP also indicates that on or around May 11th of each year, WPAFB will conduct a conference call to maintain open communication with the tribes to address tribal issues and concerns, upcoming installation initiatives, and partnership opportunities.

As such, the Proposed Action would result in no adverse impact to cultural resources.

3.8.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.8.2, would remain the same. Therefore, there would be no short- or long-term impacts to cultural resources because no archaeological sites or NRHP-eligible buildings are located on or in proximity to the MILCON project site.

3.8.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative projects listed in **Table 3-1** would not have an effect on cultural resources because the proposed MILCON project and other projects in the area would occur on previously-disturbed ground. In the event of an unanticipated discovery of archaeological resources during any project at WPAFB, actions detailed in the ICRMP would be initiated to minimize impacts. Therefore, no significant impacts to cultural resources would be anticipated.

3.9 Infrastructure / Utilities

3.9.1 Definition of the Resource

Infrastructure consists of the systems and physical structures that enable a population in a specified area to function. Infrastructure is wholly human-made, with a high correlation between the type and extent of infrastructure and the degree to which an area is characterized as "urban" or developed. The availability of infrastructure and its capacity to support growth are generally regarded as essential to economic growth of an area.

The infrastructure components to be discussed in this section include utilities (electrical power, natural gas, liquid fuel, and water supply), pollution prevention, solid waste, sanitary and wastewater systems, heating and cooling, communications, and transportation.

Solid waste management primarily concerns itself with the availability of landfills to support a population's residential, commercial, and industrial needs. Alternative means of waste disposal might involve waste-to-energy programs or incineration. In some localities, landfills are designed specifically for, and are limited to, disposal of construction and demolition debris. Recycling programs for various waste categories (e.g., glass, metals, and papers) reduce reliance on landfills for disposal.

3.9.2 Affected Environment

The information contained in this section was obtained from the WPAFB Installation Development Plan (WPAFB 2014b) and provides a brief overview of each infrastructure/utilities component and comments on its existing general condition.

Electrical Power. Dayton Power & Light (DP&L) provides WPAFB with electrical power. The Base receives power via two substations, which is delivered by primary electrical lines on Base. The electrical distribution system on Base is designed to meet the needs of a much larger base population so the current

demands of service are within the system's capacity. The overall condition of the system is adequate in providing the power to the current Base population.

***Liquid Fuel*.** The liquid fuel system at WPAFB is delivered primarily by tank trucks with an alternate capability for pipeline delivery. Defense Logistics Agency-Energy is responsible for determining mode of delivery. The Base operates USTs and ASTs that store a variety of fuels.

***Water Supply*.** The water supply and distribution system at WPAFB consists of water collection, treatment, storage, and distribution systems servicing Areas A and B. A portion of the privatized military housing at the Base currently receives water from the city of Dayton via the Montgomery County Environmental Services. The water system has been privatized on Base for operation and maintenance by American Water Operations and Maintenance, Inc.

***Pollution Prevention*.** The Emergency Planning and Community Right-to-Know Act, Pollution Prevention Act of 1990 and several Executive Orders address regulatory mandates regarding pollution prevention, which include: EO 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*; EO 12873, *Federal Acquisition, Recycling, and Waste Prevention*; and EO 12902, *Energy Efficiency and Water Conservation at Federal Facilities*. The 88 CEG fulfills this requirement with the following plans:

- Integrated Solid Waste Management Plan
- Storm Water Pollution Prevention Plan
- Hazardous Waste Management Plan

These plans ensure that WPAFB maintains a waste reduction program and meets the requirements of the CWA; NPDES permit program; and federal, state, and local requirements for spill prevention control and countermeasures.

***Solid Waste*.** Municipal solid waste at WPAFB is managed in accordance with the guidelines specified in AFI 32-7042, *Solid and Hazardous Waste Compliance*. This AFI incorporates by reference the requirements of Subtitle D, 40 CFR 240 through 244, 257, and 258, and other applicable federal regulations, AFIs, and DoD Directives. In general, AFI 32-7042 establishes the requirement for installations to have a solid waste management program that incorporates the following: a solid waste management plan; procedures for handling, storage, collection, and disposal of solid waste; recordkeeping and reporting; and pollution prevention.

The Base operates a Qualified Recycling Program that is run by 88 CEG/CEIEC. The recycling center is located on Patterson Field. The recycling program includes aluminum, glass, paper, plastics, oil, and ferrous and nonferrous materials. A contract for solid waste pick-up and disposal exists for all refuse on Base; the contractor removes refuse from military family housing and industrial areas on Base.

***Sanitary Sewer and Wastewater Systems*.** The sanitary sewer collection system at WPAFB is owned by the Base. The wastewater produced on the north side of Patterson Field is discharged to the Fairborn treatment plant, northwest of the Base. The wastewater produced on the remainder of Patterson Field, Wright Field, and Page Manor is served by the city of Dayton treatment system. The wastewater system was recently privatized on Base to American Water Operations and Maintenance, Inc.

***Storm Water System*.** The storm water conveyance system consists of 250,000 linear feet of sewer pipe, 45,000 linear feet of open ditches and streams, nine ponds and retention basins, and 2,500 catch basins. All storm water flows to the Mad River. Although Huffman Dam/Mad River is considered an impaired waterway, this does not affect WPAFB's current ability to discharge based on its NPDES permit limits and historical monitoring results.

***Heating and Cooling using Natural Gas*.** Within the past 5 years, the Base has converted entirely to natural gas for installation wide heating and cooling purposes. The installation gets 80 percent of its annual heating requirements from two centralized heating plants that centralizes heat distribution throughout the Base. Each heating plant feeds a common distribution system for its portion of the Base.

Four small satellite heating sites serve small or remote installation areas constituting 4 percent of the Base heating requirements. The remaining 16 percent of the Base uses gas fired unique heating generation. The natural gas system on Base has been privatized with conveyance/transfer for operation and maintenance by Vectren.

***Communications*.** The communications system at WPAFB consists of telephone, local computer systems, long-haul communications, and land mobile radio systems. The Base's communications and information utility infrastructure is in good condition and there are improvements planned that would enable it to meet any known future communication requirements.

***Transportation System*.** State highways provide direct access to WPAFB. State Route 844 provides a route from the Base to Interstate 675 (I-675), which is located east of the Base. Interstate 675 provides direct access to I-70, which is approximately 9 miles to the north; U.S. 35, which is approximately 5 miles to the south; and I-75, which is approximately 15 miles to the southwest. State Route 235 provides access from the Base to State Route 4 and I-70. Traffic enters Area B from Springfield Street, National Road, and I-675.

Commercial trucks were previously inspected in F/11465 before entering onto WPAFB through the base perimeter fence at Gate 16A, which was located adjacent and north of F/11465. An EIS was performed in 2012 that evaluated the impacts of reconfiguring nine entry control gates (included Gate 16A) and relocating the Base perimeter fence at WPAFB (WPAFB 2012a). The 2012 EIS stated the truck inspection functions of Gate 16A were to be relocated to a newly constructed Gate 26A. Upon completion of Gate 26A, the functions of Gate 16A would be relocated to the newly constructed Gate 26A and commercial access to the Base through Gate 16A would be permanently closed. The construction of Gate

26A has since been completed. As of November 18, 2019, commercial vehicle inspections are now being conducted at the new inspection facility at Gate 26A. It is noted that Gate 16A in the area of the MILCON project site remains an open/active gate for the sole purpose for the public to access Twin Base Golf Course, the Skeet Range, the Prairie, and the Huffman Prairie Flying Field, which are all located in the general vicinity of and continue to be accessed through Gate 16A. F/11465 was demolished in spring 2020. For this EA, the demolition of the outbuilding was originally evaluated in this EA as a conservative measure; however, it was also demolished in spring 2020.

3.9.3 Environmental Consequences

Impacts on infrastructure are evaluated for their potential to disrupt or improve existing levels of service and additional needs for energy and water consumption or sanitary sewer systems. Impacts might arise from energy needs created by either direct or indirect workforce and population changes related to Base activities.

3.9.3.1 Proposed Action

No short-term adverse impact to infrastructure or utilities would be expected because electric, natural gas, and storm water utilities would be upgraded as part of the Proposed Action. Underground utilities in areas to be excavated would be marked by each division of Base utilities. Proper excavation techniques would be used to ensure that existing underground utility lines are not damaged. Although the Base has maps that describe the location of the utilities, there would be a potential for unmarked utilities. In the event a utility line is cut or otherwise damaged, on-site personnel would need to implement emergency procedures.

There would be a short-term temporary increase in use of roadways in and around the construction site as a result of construction traffic. Increases in traffic volumes and adverse impacts to traffic flow at the MILCON project site would be due to additional traffic entering, leaving, and cycling throughout the construction area as a result of contractors performing construction activities. In particular, there would be an overall increase in the volume of truck equipment traffic as a result of construction activities. Construction equipment would be driven to the project location and would be kept on site during the duration of the project. In order to restrict construction equipment from impacting LF7, temporary fencing would be installed on the north side of the road prior to construction activities. This fencing would prevent construction traffic from entering and/or damaging the LF7 cap.

The roadways within the new USAR site would be removed with the construction project and new roads/parking lots would be built to best serve the needs of the new building locations. Once the USARC is operational, the former truck inspection facility had processed over 100 commercial vehicles per day. While the Army Reserve Units assigned to the area have approximately 450 vehicles, most of these vehicles would not be moving daily and would have little impact on the road network. There would likely be deliveries on a routine basis, but this traffic would not come close to the traffic levels that had been

experienced at the truck inspection facility. Therefore, the impact to the surrounding roadway network would be expected to be less than before.

No long-term impacts to infrastructure or utilities systems would be expected as a result of implementing the Proposed Action because the proposed MILCON project site would incur a *de minimis* increase to the overall installation's public services. In addition, long-term operation and maintenance of USAR facilities would not be expected to impact existing utilities at the Base.

No impacts to traffic or transportation would be expected as a result of permanently closing the commercial truck inspection Gate 16A because the inspection functions would be relocated to Gate 26A, which would eliminate all commercial truck traffic to the proposed MILCON project site. Additionally, USAR facilities students and staff would be expected to utilize the on-site designated parking lot.

3.9.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.9.2, would remain the same. Therefore, there would be no short- or long-term impacts because there would be no change to infrastructure/utilities over baseline conditions.

3.9.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative actions related to the ECP Gate 15A and ECP 1A Renovation projects (listed in **Table 3-1**) would have no short- or long-term impacts on the communications, sewer and wastewater, storm water drainage, or solid waste generation systems. There is the potential for impacts to traffic/transportation at Gate 15A, which is in the vicinity of the proposed project site. Primary access to the MILCON site, however, would be at Gate 16A. ECP 1A is not located near the proposed project site. While utility systems at WPAFB would have capacity for growth, the potential exists for cumulative impacts on utilities in the area of the MILCON and ECP projects. However, as newly constructed infrastructure would replace older facilities, the newer, more energy efficient construction methods would likely contribute to a cumulative, long-term, minor, and overall beneficial impact on energy consumption.

The AFMC Headquarters and NASIC Complex are also located in the same general area of the southern portion of Area A. Short-term cumulative impacts would not be significant because construction would occur within the existing footprints of these facilities. The renovation projects would also be carried out over several years. With regard to long-term impacts, these facilities are located within a highly developed network of utilities and would unlikely be affected by the added usage of utilities at the proposed USAR facility.

3.10 Safety and Occupational Health

3.10.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Activities that can be hazardous include transportation, maintenance and repair activities, and the creation of highly noisy environs. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications. Any facility or human-use area with potential explosive or other rapid oxidation processes creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns. The public would have no access to the construction activities associated with the Proposed Action.

Munitions and Explosive Safety

Explosives are classified based on their reactions to specific influences. The explosives hazard class is further subdivided into "division", based on the character and predominance of the associated hazards and their potential for causing personnel casualties or property damage. Explosives Hazard Class/Division 1.4 designates a moderate fire with no significant blast or fragment hazard (Sandia 2010).

Explosive safety zones (ESZs) are required for areas where ordinance is stored or handled. The ESZs are typically determined based upon the net explosive weight of the ordinance to be stored or handled and the blast resistance properties of the magazine. Explosive Safety Quantity Distance (ESQD) arcs that delineate the extents of each ESZ are constructed. The ESZ and ESQD requirements are specified in Air Force Manual (AFMAN) 91-201, *Explosive Safety Standards*. The equivalent explosives regulations are specified in the Department of the Army Pamphlet 385-64, *Ammunition and Explosives Safety Standards* (October 10, 2013) and in ATP 4-35.1, *Ammunition and Explosives Handler Safety Techniques* (November 8, 2016).

Construction Safety

Construction site safety consists primarily of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by DoD and AF regulations designed to comply with standards issued by OSHA and USEPA. These standards specify the amount and type of training required for industrial workers, the use of protective equipment and clothing, engineering controls, and maximum exposure limits for workplace stressors. In addition, health and safety plans are typically developed by the contractor on a project-specific basis.

3.10.2 Affected Environment

Munitions and Explosives Safety

There is a small quantity of small arms licensed ammunition with a hazard class of 1.4S stored in the armory in the adjacent and east Marine Forces Reserve property. However, the MILCON project site is located outside any munitions and ESZs. In addition, no explosives would be stored at the proposed MILCON project site other than a few rounds (under 20) so that Soldiers could be armed when they transport weapons off-site. Bulk ammunition storage would be conducted at an approved site and the unit would have to requisition ammunition for weapons qualifying and training events. These specific events would occur at Army locations with firing ranges (i.e., Fort McCoy, Camp Atterbury) and not on the proposed MILCON project site at WPAFB.

Construction Safety

All contractors performing demolition and construction activities are responsible for following ground safety regulations and worker compensation programs and are required to conduct construction activities in a manner that does not pose any risk to workers or personnel. Industrial hygiene programs address exposure to hazardous materials, use of personal protective equipment, and availability of Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractor responsibilities are to review potentially hazardous workplace operations; to monitor exposure to workplace chemical (e.g., asbestos, lead, hazardous materials), physical (e.g., noise propagation), and biological (e.g., infectious waste) agents; to recommend and evaluate controls (e.g., ventilation, respirators) to ensure personnel are properly protected or unexposed; and to ensure a medical surveillance program is in place to perform occupational health physicals for those workers subject to any accidental chemical exposures.

ATFP

The DoD seeks effective ways to minimize the likelihood of mass casualties from terrorist attacks against DoD personnel in the buildings in which they work and live. The intent of UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings,* is to minimize the possibility of mass casualties in buildings or portions of buildings owned, leased, privatized, or otherwise occupied, managed, or controlled by or for DoD. The UFC standards provide appropriate, implementable, and enforceable measures to establish a level of protection against terrorist attacks for all inhabited DoD buildings where no known threat of terrorist activity currently exists.

UFC mandates minimum standoff distances for new and existing buildings and for those buildings to exist within or outside of a controlled perimeter. Standoff distances are distances maintained between a building or portion thereof and the potential location for an explosive detonation, primarily an adjacent roadway, parking area, and/or trash cans. A controlled perimeter is a physical boundary at which vehicle access is controlled with sufficient means to channel vehicles to the access control points. At a minimum, access control at a controlled perimeter requires the demonstrated capability to search for and detect explosives.

3.10.3 Environmental Consequences

Impacts on health and safety are evaluated for their potential to jeopardize the health and safety of Base personnel as well as the surrounding public. Impacts might arise from physical changes in the work environment, demolition and construction activities, introduction of demolition and construction-related risks, and risks created by either direct or indirect workforce and population changes related to proposed Base activities. AF regulations and procedures promote a safe work environment and guard against hazards to the public. The WPAFB programs and day-to-day operations are accomplished according to applicable AF federal and state health and safety standards.

3.10.3.1 Proposed Action

Munitions and Explosives Safety

No adverse effects due to munitions or explosives safety would be expected to occur from constructing the USAR facilities. According to the WPAFB Munitions and Explosives Safety Manager, the proposed MILCON project area is clear of any munitions or explosives hazards. Once operational, approximately 20 rounds of munitions or less would be stored at the facility. Munitions/weapons storage would be permitted with restrictions in this area of the base. As it is part of USAR's mission, munitions and weapons are permitted as long as they are stored according to safety standards. Should the quantity of munitions increase in the future, the WPAFB Munitions and Explosives Safety Manager would address potential impacts at that time.

Construction Safety

Potential short-term impact to workers would be expected during construction activities. Implementation of the Proposed Action would slightly increase the short-term risk associated with contractors performing construction activities at WPAFB during the normal workday.

Contractors would be required to establish and maintain safety programs, develop health and safety plans, and adhere to SOPs. Any potential adverse impacts to the health and safety of nearby personnel would be minimized by clearly identifying the work zone and prohibiting access to unauthorized individuals. Use of high-profile equipment would require a "spotter" when operating near any overhead hazards. To minimize vehicle accidents, contractors would direct heavy vehicles entering and exiting construction site. The Base has also incorporated stringent safety standards and procedures into day-to-day operations. In addition, proper excavation techniques would be used to ensure that existing underground utility lines are not damaged; in the event a utility line is cut or otherwise damaged, on-site personnel would need to implement emergency procedures. Therefore, no adverse effects are anticipated as a result of the Proposed Action due to safeguards existing to protect personnel.

Facility Safety

Once operational, long-term potential impacts due to workplace and training activities or vehicle accidents would be minimized by adherence to health and safety regulations and standards. The Proposed Action also includes a weapons and ammunition armory. The armory would be located within the AMSA which would be secured in accordance with Army Regulation 190-11 Physical Security of Arms, Ammunition, and Explosives. Soldiers would be required to requisition ammunition for weapons qualifying and training events from the armory.

ATFP

No adverse effect to ATFP would be expected as a result of constructing USAR facilities at WPAFB because the facilities would be constructed according to UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*. USAR facilities have not been designed to date. However, USAR facilities would be designed with UFC 4-010-01 criteria to incorporate minimum engineering standards that integrate antiterrorism-based mitigating measures not associated within an identified threat or level or protection.

As additional security precautions, natural or manmade obstacles such as trees, shrubbery, and/or sloping earthen mounds could be considered for placement along the southern property boundary to further obstruct views.

3.10.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.10.2, would remain the same. The proposed site would remain vacant and there would be no routine activity. Therefore, there would be no short- or long-term impacts because there would be no change in the safety or occupational health of workers.

3.10.3.3 Cumulative Effects

Construction activities associated with the Proposed Action and cumulative actions related to projects listed in **Table 3-1** would have potential short-term cumulative adverse impacts on health and safety (e.g., slips, falls, heat exposure, exposure to mechanical, electrical, vision, or chemical hazards). Implementation of appropriate safety methods during these activities would be expected to minimize the potential for such impacts. Workers at construction sites would be required to adhere to site specific health and safety plans; construction areas would be secured to prevent unauthorized personnel from entering work sites; and in accordance with the Occupational Safety and Health Act, all workers would be provided with appropriate personal protective equipment. Therefore, no significant cumulative impacts to safety and occupational health would be anticipated.

3.11 Socioeconomics

3.11.1 Definition of the Resource

Socioeconomics is the relationship between economics and social elements such as population levels and economic activity. Factors that describe the socioeconomic environment represent a composite of several interrelated and nonrelated attributes. There are several factors that can be used as indicators of economic conditions for a geographic area, such as demographics, median household income, unemployment rates, percentage of families living below the poverty level, employment, and housing data. Data on employment identify gross numbers of employees, employment by industry or trade, and unemployment trends. Data on industrial, commercial, and other sectors of the economy provide baseline information about the economic health of a region.

3.11.2 Affected Environment

Demographics. Metropolitan statistical areas are geographic entities defined by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. A metro area contains a core urban area of 50,000 or more of a population. Each metro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core (Census 2017).

The Base is located 10 miles outside of Dayton, Ohio. According to the 2010 Census data, the city of Fairborn had a population of 32,352; the city of Dayton had a population of 141,527; and the Dayton Metropolitan Area (MA) (consisting of Clarke, Greene, Miami, Montgomery, and Preble counties) had a population of 979,835 residents. Based on the 2010 Census data, the Dayton MA was the fourth largest metropolitan area in Ohio.

Employment Characteristics. The Base provides a major source of employment in the five-county area. In addition, WPAFB awards numerous contracts every year to local businesses. For FY2014 (October 1, 2013 through September 30, 2014), the total number of jobs provided by WPAFB was over 27,000. This number includes military active duty, trainees and reservists, DoD civilians, and other civilians, such as contractors. This number of indirect jobs supported by the Base, such as restaurants, dry cleaners, and others is estimated at 34,560. The total economic impact to the local Dayton MA was $4.3 billion (WPAFB 2018c). A large portion of residents in the Dayton MA are employed in education, health and social services; a lower percentage of residents are employed in retail trade, finance, insurance, real estate, and rental and leasing.

Recent unemployment rates indicate the unemployment rate for the Dayton MA was 4.3 percent in February 2019 (Bureau of Labor Statistics [BLS] 2019a), which was reported to be slightly lower than the state average of 4.6 percent in the same month (BLS 2019b). The Dayton MA unemployment rate was slightly higher than the U.S. average of 4.1 percent for the same month of February 2019 (BLS 2019a).

The AFMC has had a surge in spending on small business contracts in recent years, rising nearly 30 percent in the Dayton area and 33 percent in Ohio since 2013. The Wright-Patterson-headquartered command, AFMC, has spent nearly a billion dollars more, jumping to $4.6 billion in FY 2015 from $3.6 billion in 2013. AFMC spending on Dayton-area small business contracts reached $223.2 million in FY 2015, climbing from $171.9 million in 2013 (WPAFB 2018c). Construction labor for Phase I and II of the proposed MILCON project would be sourced from the local economy. In addition, construction materials and supplies would also be sourced locally, thus resulting in increased revenues to the local economy.

Communities bordering WPAFB have also benefited. In Fairborn, AFMC spent $46.8 million in both FY 2014 and 2015, a jump from $40.4 million, or 15.6 percent in 2013. In Beavercreek, spending reached nearly $34.8 million in 2014, a 136.3 percent increase from $14.7 million two years prior. Centerville saw the most dramatic percentage increase based on $10.7 million in AFMC contracts in FY 2015 compared to almost $159,000 two years earlier, up more than 6,600 percent. Xenia contractors captured $5.2 million in contracts during FY 2014 compared with $2.2 million in 2013, nearly a 130 percent increase (WPAFB 2018c). Statewide, Ohio small businesses captured $387.3 million compared with $291.1 million in FY 2013, a 129 percent hike (WPAFB 2018c).

3.11.3 Environmental Consequences

This section identifies potential economic and social impacts that might result from the proposed project. The methodology for the economic impact assessment is based on the Economic Impact Forecast System (EIFS) developed by the DoD in the 1970s to efficiently identify and address the regional economic effects of proposed military actions (EIFS 2001). The EIFS provides a standardized system to quantify the impact of military actions, and to compare various options or alternatives in a standard, non-arbitrary approach.

The EIFS assesses potential impacts on four principal indicators of regional economic impact: business volume, employment, personal income, and population. As a "first tier" approximation of effects and their significance, these four indicators have proven very effective. The methodology for social impacts is based on the Guidelines and Principles for Social Impact Assessment, developed by an inter-organizational committee of experts in their field (National Oceanic and Atmospheric Administration [NOAA] 1994).

The proposed project at WPAFB would have an adverse impact with respect to the socioeconomic conditions in the surrounding MA if it would:

- Change the local business volume, employment, personal income, or population that exceeds the MA's historical annual change; and/or
- Negatively affect social services or social conditions, including property values, school enrollment, county or municipal expenditures, or crime rates.

3.11.3.1 Proposed Action

The Proposed Action would have a negligible impact on the local workforce. A short-term beneficial impact would be expected on the local economy from revenue generated by construction activities. The Proposed Action does not involve changes in off-Base land use; therefore, no impacts on social conditions are expected. USAR traffic from non-Dayton MA based members and equipment may increase to the WPAFB project site as a result of continued operational activities (full and part-time USAR members could include personnel from outside the defined Dayton MA counties [e.g., Darke, Shelby, Champaign, and Logan]). Long-term beneficial impacts would be expected to personnel working at the new USAR facility. The long-term beneficial impact would also be realized by WPAFB due to the additional mission being located on Base.

3.11.3.2 No Action

Under the No Action alternative, the USAR MILCON project would not be constructed at WPAFB and existing conditions, as described in Section 3.11.2, would remain the same. Therefore, there would be no short- or long-term impacts because there would be no changes in activities that would affect the local workforce or local economy over baseline conditions.

3.11.3.3 Cumulative Effects

No short- or long-term cumulative impacts on socioeconomics would be expected as a result of constructing the USAR facilities at WPAFB when added to other cumulative projects in the area (**Table 3-1**). However, a beneficial impact to the local economy would result from revenue generated from the MILCON and other planned construction projects at WPAFB (i.e., NASIC Complex Renovation, Primary Runway Pavement Replacement, Repair Roads Basewide) that source labor, materials, and supplies.

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Several persons were contacted or consulted during the preparation of the EA. The persons contacted are listed below:

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Appendix A

Photo Log

APTIM

Photographic Documentation

Client:	Wright-Patterson Air Force Base	**Project Number:**	501015
Project Name:	Gate 16A / Proposed Army Reserve Facility	**Photographer**:	S. Burns

Photograph No. 1 **Date:** July 3, 2018 **Direction:** North **Description:** Looking north toward the commercial vehicle inspection facility.	

Photograph No. 2 **Date:** October 16, 2018 **Direction:** N/A **Description:** Interior of commercial vehicle inspection facility (drainage and lighting in center).	

APTIM

Photographic Documentation

Client:	Wright-Patterson Air Force Base	**Project Number:**	501015
Project Name:	Gate 16A / Proposed Army Reserve Facility	**Photographer**:	S. Burns

Photograph No. 3 **Date:** July 3, 2018 **Direction:** South **Description:** Outbuilding located in the middle portion of the Subject Property.	

Photograph No. 4 **Date:** October 16, 2018 **Direction:** Southwest **Description:** Interior of outbuilding.	

APTIM

Photographic Documentation

Client:	Wright-Patterson Air Force Base	**Project Number:**	501015
Project Name:	Gate 16A / Proposed Army Reserve Facility	**Photographer**:	S. Burns

Photograph No. 5 **Date:** July 3, 2018 **Direction:** Northwest **Description:** Vacant job trailer located on the northern portion of the Subject Property .	

Photograph No. 6 **Date:** October 16, 2018 **Direction:** West **Description:** Interior of vacant job trailer.	

APTIM

Photographic Documentation

Client:	Wright-Patterson Air Force Base	**Project Number:**	501015
Project Name:	Gate 16A / Proposed Army Reserve Facility	**Photographer**:	S. Burns

Photograph No. 7

Date: July 3, 2018

Direction: East

Description: Looking east (commercial vehicle inspection facility left of center).

Photograph No. 8

Date: July 3, 2018

Direction: South

Description: Looking south across the middle portion of the Subject Property (high-tension power line right of center).

APTIM

Photographic Documentation

Client:	Wright-Patterson Air Force Base	**Project Number:**	501015
Project Name:	Gate 16A / Proposed Army Reserve Facility	**Photographer**:	S. Burns

Photograph No. 9

Date: July 3, 2018

Direction: North

Description: Looking north across the Subject Property showing one of two low-lying drainage areas that cross the roadways.

Photograph No. 10

Date: July 3, 2018

Direction: South

Description: Looking east toward the stream located along the east property boundary.

Appendix B

IICEP and NOA

Miami Conservancy District Consultation Letters:

1. WPAFB Request – 18Jun19
2. MCD Response – 1Aug19

June 18, 2019

88 CEG/CEIEA
1450 Littrell Road, Building 22
Wright-Patterson AFB OH 45433-5209

Mr. Kurt Rinehart
Miami Conservancy District
38 E. Monument Avenue
Dayton, OH 45402

Dear Mr. Rinehart:

Wright-Patterson Air Force Base (WPAFB, Base) is preparing an Environmental Assessment (EA) to evaluate the potential impacts associated with a proposal to construct three facilities at WPAFB that would occur during two separate phases. Phase I would occur in Fiscal Year (FY) 2021 during which time an approximate 16,128 square foot (sf) facility would be constructed. Phase II would occur in FY 2024 during which time an approximate 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed. Each facility would be constructed, operated, and maintained by the U.S. Army Reserve (USAR). Construction of the facilities would enable USAR to correct inadequate training space and overcrowded conditions currently experienced off-site by soldiers at three nearby regional facilities.

The geographic location of the proposed project area is Greene County; Latitude North 39° 47' 33" / Longitude -84° 3' 27", as shown on Figure 1.

Proposed Action

The Proposed Action consists of constructing three USAR facilities at WPAFB on a 15-acre grass-covered lawn. Gate 16A, a commercial truck inspection gate, exists on the northeastern portion of the proposed site. In addition, a vacant outbuilding (former Gate 16A) and a vacant modular trailer exist in the vicinity of Gate 16A. Gate 16A and the outbuilding would be demolished and removed from the project site prior to construction activities and the modular trailer would be removed from the site. The Proposed Action consists of two distinct phases of construction for FY 2021 and 2024, described as follows:

Phase I – FY 2021
A 16,128 sf facility would be constructed that includes a drive-thru work bay and safety aisles, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. This facility would include concrete aprons, vehicle wash rack/platform(s), bi-level equipment loading ramp, and parking space for military and privately-owned vehicles.

Phase II – FY 2024
A 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed on the same 15-acre parcel as described above for Phase I. Phase II activities would consolidate two existing aging and severely over-utilized U.S. Army Reserve Center facilities in the region (LaPointe, Ohio and Troy, Ohio)

into a single facility at WPAFB that would not only be compliant with antiterrorism/force protection (ATFP) standoff requirements, but would also meet the training needs of assigned units.

Other than the aforementioned existing structures on the 15-acre parcel at WPAFB, the proposed project site consists of a maintained grassy lawn with sparsely scattered spruce trees surrounding Gate 16A, the outbuilding, and the modular trailer. A stream, identified by WPAFB as SC1D, is located along the 15-acre eastern property boundary that flows in a northerly direction (Figure 2). This stream would not be impacted by proposed construction activities.

Under the No Action alternative, the new USAR facilities would not be constructed at WPAFB and the units stationed in the region would continue to train in facilities with inadequate training features, outdated communication systems, and insufficient space to support their mission requirements.

The project site is located at an elevation of 820 feet above mean sea level. The project site is not located within the 100-year floodplain and no impacts to the floodplain or the Huffman Retarding Basin would be expected from construction of the three USAR facilities at this location at WPAFB (Figure 2). The project would be constructed in an area of previous disturbance and the storage capacity of the retarding basin would not change. Impacts to surface water runoff during construction activities resulting from construction of the USAR facilities would be minimized by implementing Best Management Practices for erosion and sedimentation controls during construction.

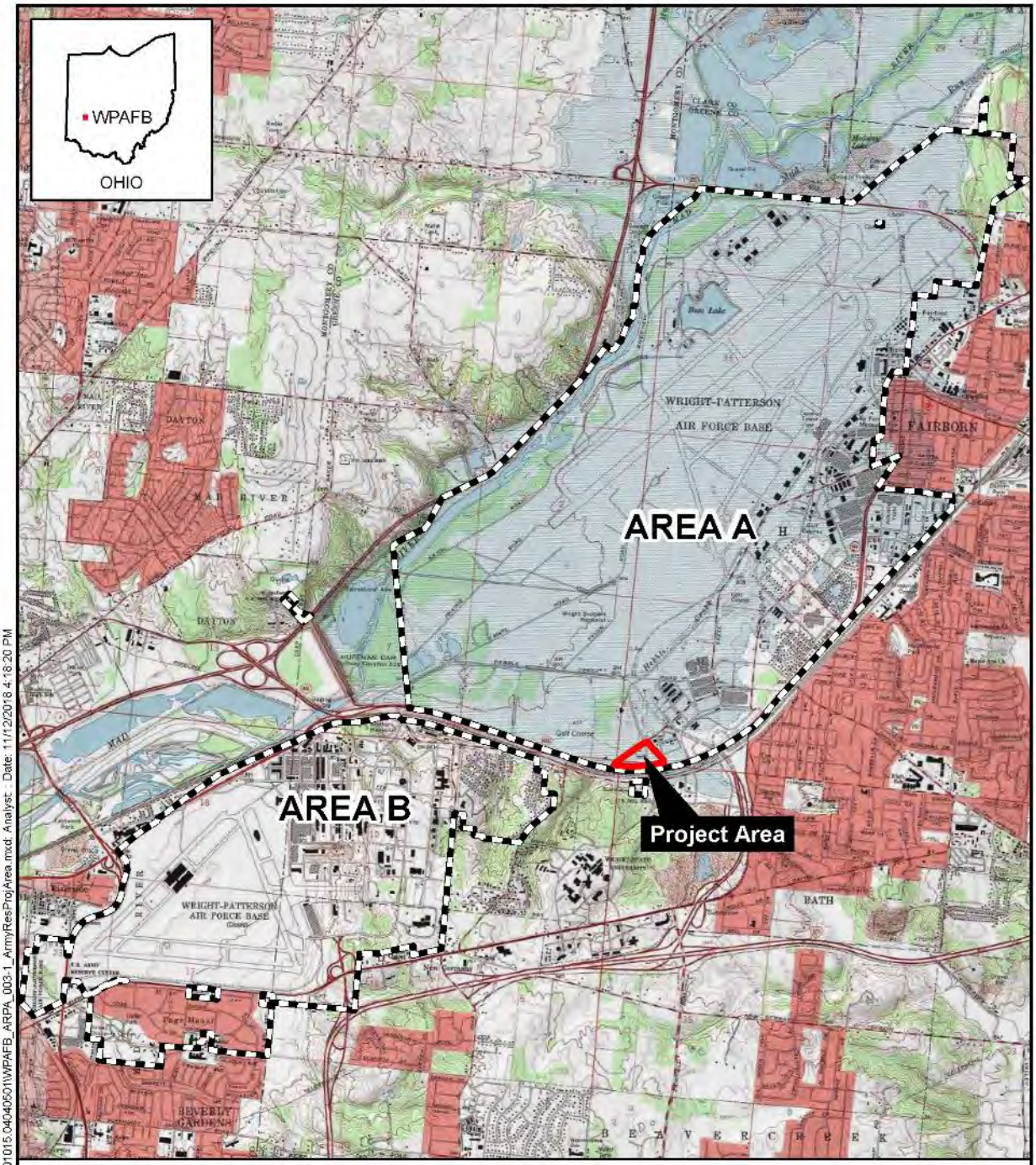
Thank you for your consideration. Please return your comments to me at the above address. If you have questions, please contact me at 937/257-4857 or by email at Darryn.Warner@us.af.mil.

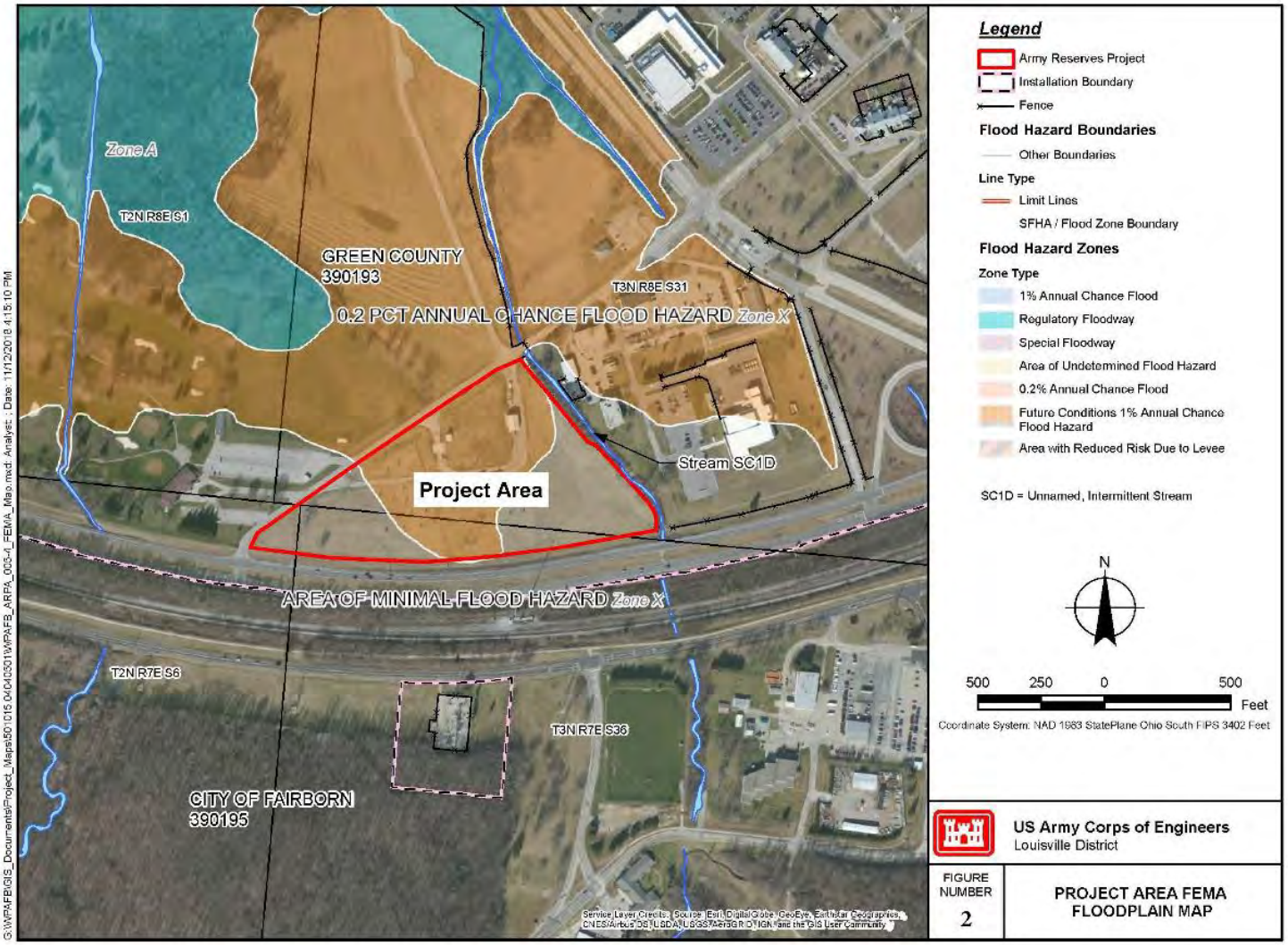
Sincerely,

Darryn M. Warner
Natural Resources Program Manager
Environmental Assets Section
Environmental Branch

cc: John Banford (88 CEG/CEIEA, WPAFB)
Cynthia A. Hassan (APTIM)

Attachments: Figure 1 – Topographic Map Project Area
Figure 2 – Project Area FEMA Floodplain Map


WPAFB
OHIO
AREA A
AREA B
Project Area
WRIGHT-PATTERSON
AIR FORCE BASE
DAYTON
FAIRBORN
BATH
BEAVER CREEK
Service Layer Credits: Copyright © 2013 National Geographic Society, i-cubed
N
0 0.25 0.5 1
Miles
US Army Corps of Engineers
Louisville District
FIGURE NUMBER
1
TOPOGRAPHIC MAP
PROJECT AREA
G:\WPAFB\GIS_Documents\Project_Maps\60601015.04040501\WPAFB_ARPA_003-1_ArmyResProjArea.mxd; Analyst: ; Date: 11/12/2018 4:18:20 PM


Zone A
T2N R8E S1
GREEN COUNTY
390193
T3N R8E S31
0.2 PCT ANNUAL CHANCE FLOOD HAZARD Zone X
Project Area
Stream SC1D
AREA OF MINIMAL FLOOD HAZARD Zone X
T2N R7E S6
T3N R7E S36
CITY OF FAIRBORN
390195
Legend
Army Reserves Project
Installation Boundary
Fence
Flood Hazard Boundaries
Other Boundaries
Line Type
Limit Lines
SFHA / Flood Zone Boundary
Flood Hazard Zones
Zone Type
1% Annual Chance Flood
Regulatory Floodway
Special Floodway
Area of Undetermined Flood Hazard
0.2% Annual Chance Flood
Future Conditions 1% Annual Chance Flood Hazard
Area with Reduced Risk Due to Levee
SC1D = Unnamed, Intermittent Stream
N
500 250 0 500
Feet
Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
US Army Corps of Engineers
Louisville District
FIGURE NUMBER
2
PROJECT AREA FEMA FLOODPLAIN MAP
G:\WPAFB\GIS_Documents\Project_Maps\501015.04\040501\WPAFB_ARFA_003-4_FEMA_Map.mxd: Analyst: ; Date: 11/12/2018 4:15:10 PM

MCD
MIAMI CONSERVANCY DISTRICT

38 E. Monument Ave.
Dayton, OH 45402
(937) 223-1271

August 1, 2019

Mr. Darryn Warner
88 CEG/CEIEA
1450 Littrell Road, Building 22
Wright-Patterson AFB, OH 45433-5209

Re: Huffman Retarding Basin

Dear Mr. Warner:

Your letter dated June 18, 2019 outlined a proposal to construct three (3) facilities located in Area A at Wright-Patterson Air Force Base. The geographic location of the proposed project area is Greene County; Latitude North 39° 47' 33" / Longitude -84° 3' 27".

The proposed project is located within the retarding basin upstream of Huffman Dam. This property is subject to Miami Conservancy District (MCD) rights reserved in the deed recorded in Greene County Deed Book 129, Page 146 on December 16, 1922 (copy attached). Those rights include:

- The right to back waters of the Mad River over the property to elevation 835 by the action of Huffman Dam.
- The right to remove all structures situated below elevation 825.
- No new structures may be erected below elevation 830 except by written permission from MCD.
- All structures erected or maintained below elevation 835 are at the risk of the owner.

The buildings proposed to be constructed at approximate elevation 820 are not consistent with MCD rights defined in the deed.

We appreciate the opportunity to review and provide comments. If you have any further questions please contact Roxanne Farrier at (937) 223-1278, ext. 3230 or rfarrier@mcdwater.org, or me at (937) 223-1278 ext. 3242 or krinehart@mcdwater.org.

Sincerely,

Kurt Rinehart
Chief Engineer

cc: Roxanne H. Farrier

enclosure

Retarding Basin Permit Application and Attachments

WPAFB Notification – 8Aug19

MCD
MIAMI CONSERVANCY DISTRICT

38 East Monument Avenue
Dayton OH 45402-1265
937-223-1271
www.mcdwater.org

RETARDING BASIN PERMIT APPLICATION

Complete the application to request permission to access and/or use MCD property for the specified use. It is understood that completing this application does not constitute permission to access or use MCD property.

TYPE OF LAND USE

- ☐ RV Use
- ☒ Structure
- ☐ Utility
- ☐ Other

Date: Aug 8, 2019

Name/Company: 88 CEG/CEIEA Wright Patterson AFB

Street Address: 1450 Littrell Rd. Bldg. 22

City: WPAFB State: OH Zip Code: 45433

Contact Name: Darryn Warner Email: darryn.warner@us.af.mil

Phone: 937-257-4857 Mobile/Alternate Phone: 937-257-5627 Fax: 937-656-1534

☒ New Permit ☐ Renewal

Category: ☐ Public ☐ Private ☒ Other

Liability Insurance Available: ☒ Yes ☐ No

Location of Proposed Land Use: (attach location map)
The geographic location of the proposed project area is Greene County; Latitude North 39 47'33"/Longitude -84 3'27" (see attachment 1).

Description of Proposed Land Use:
New facility construction. (see attachment 2).

Additional Information:
See attachment 3.

Please submit form to MCD Property Administrator at the above address.

For MCD Use (additional items requested):

- ☐ Access Plan
- ☐ Construction Plans/Specifications
- ☐ Construction Schedule
- ☐ Design & Construction Requirement
- ☐ Financial Capability
- ☐ Insurance Certificate
- ☐ Other Permit Compliance
- ☐ Staging Area
- ☐ Technical Requirements

Miami Conservancy District (MCD) Consultation Letter
Retarding Basin Permit Application
8Aug19

1. **Attachment 2 – Preliminary Draft FONSI**
2. **Attachment 3 – Preliminary Draft EA – Selected Text**

Attachments may be available upon request, please contact:

88 ABW / Public Affairs
5135 Pearson Road
Building 10, Room 252
Wright-Patterson AFB, OH 45433
88abw.pa@us.af.mil

Retarding Basin Permit Application and Attachments

WPAFB Letter – 22Oct19

DEPARTMENT OF THE AIR FORCE
88TH CIVIL ENGINEER GROUP (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

75TH ANNIVERSARY
STRENGTH THROUGH SUPPORT

22 October 2019

Mr. Michael A. Brady
Chief, Environmental Assets Section
88 Civil Engineer Group, Environmental Branch
1450 Littrell Road, Building 22
Wright-Patterson AFB OH 45433-5209

Mr. Kurt Rinehart
Chief Engineer
Miami Conservancy District
38 E. Monument Avenue
Dayton OH 45402

Dear Mr. Rinehart

In response to your request for additional information for the Retarding Basin Permit Application submitted on 8 August 2019, Wright-Patterson Air Force Base (WPAFB) is pleased to provide you an updated application (attachment 1) including a revised Draft Finding of No Significant Impact (FONSI) which addresses the Miami Conservancy District's concerns (highlighted in yellow) about the Proposed Action to build facilities for consolidation of United States Army Reserve (USAR) units at WPAFB.

The FONSI is part of an Environmental Assessment (EA) which evaluates the impact the Proposed Action would have on the environment and surrounding community. The EA and FONSI will be evaluated by subject matter experts from the USAR and the Air Force, and coordinated through Headquarters Air Force prior to the approval by the Air Force Materiel Command Senior Civil Engineer.

If you have any questions or concerns please contact Mr. John Banford, Environmental Impact Analysis Program Manager at john.banford@us.af.mil or by phone (937) 257-6482 or Mr. Darryn Warner, Natural Resources Program Manager at darryn.warner@us.af.mil or by phone (937) 257- 4857.

Sincerely

MICHAEL A. BRADY, NH-04, Chief
Environmental Assets Section
Environmental Branch

Attachment:
Revised MCD Permit Application USAR, 21 October 2019

cc:
Mr. Darryn Warner, 88 CEG/CEIEA

MCD
MIAMI CONSERVANCY DISTRICT

38 East Monument Avenue
Dayton OH 45402-1265
937-223-1271
www.mcdwater.org

RETARDING BASIN PERMIT APPLICATION

Complete the application to request permission to access and/or use MCD property for the specified use. It is understood that completing this application does not constitute permission to access or use MCD property.

TYPE OF LAND USE

- ☐ RV Use
- ☒ Structure
- ☐ Utility
- ☐ Other

Date: 21 October 2019

Name/Company: 88 CEG/CEIEA Wright Patterson AFB

Street Address: 1450 Littrell Rd. Bldg. 22

City: WPAFB State: OH Zip Code: 45433

Contact Name: Darryn Warner Email: darryn.warner@us.af.mil

Phone: 937-257-4857 Mobile/Alternate Phone: 937-257-5627 Fax: 937-656-1534

☒ New Permit ☐ Renewal

Category: ☐ Public ☐ Private ☒ Other

Liability Insurance Available: ☒ Yes ☐ No

Location of Proposed Land Use: (attach location map)
The geographic location of the proposed project area is Greene County; Latitude North 39 47'33"/Longitude -84 3'27" (Attachment 1).

Description of Proposed Land Use:
Draft FONSI Military Construction of US Army Facilities WPAFB (Attachment 3).

Additional Information:
Project Area FEMA Floodplain Map (Attachment 2).

Please submit form to MCD Property Administrator at the above address.

For MCD Use (additional items requested):

- ☐ Access Plan
- ☐ Construction Plans/Specifications
- ☐ Construction Schedule
- ☐ Design & Construction Requirement
- ☐ Financial Capability
- ☐ Insurance Certificate
- ☐ Other Permit Compliance
- ☐ Staging Area
- ☐ Technical Requirements

Miami Conservancy District (MCD) Consultation Letter
Retarding Basin Permit Application
22Oct19

Attachment 3 – Preliminary Draft FONSI

Attachment may be available upon request, please contact:

88 ABW / Public Affairs
5135 Pearson Road
Building 10, Room 252
Wright-Patterson AFB, OH 45433
88abw.pa@us.af.mil

Draft Finding of No Significant Impact (FONSI)

WPAFB Submittal – 11Dec19

Miami Conservancy District (MCD) Consultation

11Dec19

Draft FONSI

Document may be available upon request, please contact:

88 ABW / Public Affairs
5135 Pearson Road
Building 10, Room 252
Wright-Patterson AFB, OH 45433
88abw.pa@us.af.mil

Retarding Basin Permit No: 20-3649-1, Revision No. 3:

1. **WPAFB Base Civil Engineer Signature – 2Oct20**
2. **MCD Chief Engineer Signature – 5Oct20**

RETARDING BASIN PERMIT NO: 20-3649-1, Revision No. 3

Huffman Retarding Basin

THE MIAMI CONSERVANCY DISTRICT, a body corporate and political subdivision of the State of Ohio, hereinafter called "MCD", in consideration of compensation and subject to the terms, conditions and restrictions hereinafter set forth, hereby grants to

WRIGHT-PATTERSON AFB, 88 CEG/CEIEA
1450 LITTRELL ROAD, BLDG. 22
WRIGHT-PATTERSON AFB, OHIO 45433

hereinafter called the "Grantee" the authority and permission, in accordance with, and subject to, the terms, conditions and restrictions of this Permit, the right to construct, use, maintain and remove the following ***Habitable Structures*** 0506 on land controlled by MCD.

- **New approximately 16,128 square foot AMSA VEHICLE MAINTENANCE SHOP FACILITY and PARKING** to be located as shown on the attached Exhibit "A".

- **New approximately 46,000 square foot USARC TRAINING FACILITY and PARKING** to be located as shown on the attached Exhibit "A".

ALSO

The right to construct, use, maintain and remove the following ***Non-Habitable Structure*** located on land controlled by MCD. At no time shall any structure become a habitable structure.

- **New approximately 2,500 square foot unheated STORAGE FACILITY** to be located as shown on the attached Exhibit "A".

The property, **approximately 15 acres**, (Part MCD Parcel No. 3211), is located within the Huffman Retarding Basin, Range 7, Town 3, Section 36 and Range 8, Town 3, Section 31, Bath Township, Greene County, Ohio and more specifically along SR 444 between Communications Boulevard and Sherwood Street extended as shown on the attached Exhibit "B":

This Permit is issued in accordance with those rights as acquired or retained by MCD and recorded in Greene County Deed Book 129, Page 146 on December 16, 1922.

All real property, easements, or land subject to MCD deed restriction shall hereinafter be called "MCD controlled property".

THIS PERMIT IS GRANTED SUBJECT TO COMPLIANCE WITH THE FOLLOWING TERMS, CONDITIONS AND RESTRICTIONS AS SET FORTH BY MCD IN ACCORDANCE WITH SECTION 6101.19 OF THE OHIO REVISED CODE AND MADE A PART OF THIS PERMIT:

1. FINAL PLAN APPROVAL: MCD approved plans for the placement of the structures on December 18, 2019. Prior to the modification of any structures, the Grantee AGREES to submit detailed plans and specifications, as required by MCD, for final approval.

2. RIGHTS OF INSPECTION: MCD shall have the right to inspect the construction to ensure the location, dimensions and building type conform to the approved plans.

3. NON-HABITABLE USE: The Grantee AGREES the Non-Habitable structure will be used for **Agricultural, Storage and/or Limited Recreational (Non-Commercial) Purposes.** The Grantee further acknowledges that any use not conforming to this Permit could result in the required removal of the structure and/or the termination of this Permit. At no time can it become habitable.

4. TERM: The term of this Permit shall be for a period of **twenty (20) years, effective July 1, 2020 and terminating on June 30, 2040**.

5. MCD's RIGHT OF REVOCATION:

a. If at any time, in the opinion of MCD, Grantee's use of structures and/or improvements interferes with the primary objectives of MCD or the storage capacity of the retarding basin; or should the best interests of MCD so justify; or if the use or purpose for which the Permit is issued becomes obsolete or abandoned, the Permit may be revoked. MCD will provide written notice of revocation. Such revocation will not release the Grantee from its obligation to remove any structures.

b. Subject to the terms of the deed, in the event of revocation, the Grantee may be required to remove or relocate structures **within six (6) months of written notification**. In the event the Grantee does not remove or relocate the said structures, MCD may, at its option and in coordination with the Grantee, cause said work to be accomplished and MCD is to be reimbursed for any expenses incurred subject to the availability of funding.

6. GRANTEE'S RIGHT OF TERMINATION: The Grantee, in acceptance of this Permit, does hereby AGREE to submit written notification at least **sixty (60) days** prior to the discontinued use of any MCD property as approved within this Permit.

7. RELEASE OF LIABILITY: Each party agrees to be liable for the acts and omissions of its respective officers, employees, and agents engaged in the scope of their employment arising under this license and further agrees to be responsible for any and all claims, costs, expenses, or damages arising from such acts or omissions, whether tortious, contractual, or other, except to the extent such claim or charge is cognizable under the Federal Tort Claims Act.

8. RIGHTS OF ACCESS: MCD shall have the right, after coordination with the Grantee and except during a National Defense Emergency and/or Air Force Exercise, to enter by its officers, agents and employees at any and all times upon the premises to remove or destroy drift; to monitor permit compliance; and for any and all lawful purposes authorized by the Board of Directors of The Miami Conservancy District. Upon notification of any violation, the Grantee AGREES, subject to the availability of funding, to promptly take reasonable corrective action as directed by MCD. Should reasonable corrective action not be taken within the time specified, MCD may revoke this Permit, subject to the terms and conditions as stated within this Permit.

9. TRANSFER OF LAND USE RIGHTS: Unless otherwise specified within this Permit, **this Permit is NOT assignable or transferable.**

10. COMPLIANCE WITH LAWS: The Grantee AGREES any structure placed or constructed on land controlled by MCD may not be used or occupied for any unlawful purpose. Additionally, all use of MCD property will comply with all laws, ordinances, rules, regulations, requirements, and orders of the United States of America, and all other state of Ohio and local agencies laws and regulations where the Federal statutes have waived sovereign immunity.

11. PRE-EXISTING LAND USE RIGHTS: All rights granted within this Permit will be limited by, and subject to, any rights and claims of record that exist prior to the effective date of this Permit, regarding all property described within this Permit. Said claims of record include, but are not limited to, any existing easements, right-of-ways, and/or permits.

12. ANTI-DEFICIENCY ACT: The terms of this Permit are subject to the provisions of the Anti-Deficiency Act, 31 U.S.C. 1341. The terms of this Permit shall not be interpreted to require the Grantee to commit, obligate, appropriate or spend funds or support in violation of the Anti-Deficiency Act and other applicable laws respecting federal funding. The Grantee's compliance with this permit is strictly subject to budget limitations and availability of funds.

13. FINAL INSPECTION: **Within forty-eight (48) hours of completion** concerning the placement, construction and/or modification of any structure the Grantee AGREES to notify the MCD Property Administrator.

14. OPTION OF RENEWAL: This Permit may be renewed, subject to MCD approval, provided all terms, conditions, and restrictions of the Permit have been maintained to the reasonable satisfaction of MCD. **All renewals will be subject to those terms, conditions, and Permit fees in effect at time of renewal.**

15. PUBLIC DISCLOSURE: All MCD records, including deeds, leases, permits and all related correspondence, will be considered public records and shall be available for public use and disclosure.

16. ADDITIONAL IMPROVEMENTS: The Grantee AGREES to construct no additional temporary and/or permanent structures on any portion of the above property located below elevation 830.0 and/or place any fill material on the property below elevation 835.0 without prior written MCD approval.

17. PERMIT FEE: The Permit fee is **One Hundred Fifty ($150.00) Dollars.**

I, THE GRANTEE OR AUTHORIZED REPRESENTATIVE FOR SAID GRANTEE, IN EXCHANGE FOR SUCH USE AS DEFINED WITHIN THIS PERMIT, DO HEREBY ACKNOWLEDGE ACCEPTANCE OF ALL TERMS AND CONDITIONS AS STATED WITHIN THIS PERMIT. FURTHERMORE, IN ACCEPTANCE OF THIS PERMIT THE GRANTEE DOES HEREBY CLAIM, OR AGREES TO ACQUIRE **WITHIN SIXTY (60) DAYS**, LEGAL OWNERSHIP, OR LEGAL USAGE AUTHORIZATION, CONCERNING ALL PROPERTY REFERENCED WITHIN THIS PERMIT. SHOULD THE GRANTEE FAIL TO ACQUIRE LEGAL OWNERSHIP OR USAGE AUTHORIZATION ALL TERMS AND CONDITIONS OF THIS PERMIT WILL BECOME VOID.

WRIGHT PATTERSON AFB

Date: 2 Oct 2020 By: _____
Steven S. Vincent,
Base Civil Engineer

* * * * * * * * * * *

AS AUTHORIZED REPRESENTATIVE FOR MCD I DO HEREBY GRANT APPROVAL, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, TO USE PROPERTY LOCATED WITHIN THE **HUFFMAN RETARDING BASIN** FOR SUCH USE AS DEFINED WITHIN THIS PERMIT:

THE MIAMI CONSERVANCY DISTRICT

Date: 10/5/2020 By: _____
Kurt A. Rinehart, Chief Engineer

Any questions concerning this Permit or the use of MCD property shall be directed to the **MCD PROPERTY ADMINISTRATOR** Roxanne Farrier at (937) 223-1278, ext. 3230.

To contact the MCD Caretaker call 937-414-7043.

GRANTEE'S CONTACT PERSON: John R. Banford (937) 257-6482

Miami Conservancy District (MCD)

Retarding Basin Permit

5Oct20

1. **Exhibit A – Draft Conceptual Drawing**
2. **Exhibit B – Huffman Dam Spillway**

Exhibits may be available upon request, please contact:

88 ABW / Public Affairs
5135 Pearson Road
Building 10, Room 252
Wright-Patterson AFB, OH 45433
88abw.pa@us.af.mil

Ohio Department of Natural Resources Consultation Letters:

1. **WPAFB Request – 24Jun19**
2. **ODNR Response – 5Aug19**

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 88TH AIR BASE WING (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

June 24, 2019

88 CEG/CEIEA
1450 Littrell Road, Building 22
Wright-Patterson AFB OH 45433-5209

Mr. John Kessler
ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, OH 43229-6693
P: 614/265-6621

Dear Mr. Kessler:

The purpose of this letter is to request an environmental review and information from the Natural Heritage Program for state and federally-listed threatened or endangered plants and animals in Area A at Wright-Patterson Air Force Base (WPAFB). WPAFB is preparing an Environmental Assessment (EA) to evaluate the potential impacts of constructing three facilities at WPAFB that would occur during two separate phases. Phase I would occur in Fiscal Year (FY) 2021 during which time an approximate 16,128 square foot (sf) facility would be constructed. Phase II would occur in FY 2024 during which time an approximate 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed. Each facility would be constructed, operated, and maintained by the U.S. Army Reserve (USAR). Construction of the facilities would enable USAR to correct inadequate training space and overcrowded conditions currently experienced off-site by soldiers at three nearby regional facilities.

Proposed Action

The Proposed Action consists of constructing three USAR facilities at WPAFB on a 15-acre grass-covered lawn. Gate 16A, a commercial truck inspection gate, exists on the northeastern portion of the proposed site. In addition, a vacant outbuilding (former Gate 16A) and a vacant modular trailer exist in the vicinity of Gate 16A. Gate 16A and the outbuilding would be demolished and removed from the project site prior to construction activities and the modular trailer would be removed from the site. The Proposed Action consists of two distinct phases of construction for FY 2021 and 2024, described as follows:

Phase I – FY 2021
A 16,128 sf facility would be constructed that includes a drive-thru work bay and safety aisles, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. This facility would include concrete aprons, vehicle wash rack/platform(s), bi-level equipment loading ramp, and parking space for military and privately-owned vehicles.

Phase II – FY 2024
A 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed on the same 15-acre parcel as described above for Phase I. Phase II activities would consolidate two existing aging and severely over-utilized U.S. Army Reserve Center facilities in the region (LaPointe, Ohio and Troy, Ohio) into a single facility at WPAFB that would not only be compliant with antiterrorism/force protection (ATFP) standoff requirements, but would also meet the training needs of assigned units.

Other than the aforementioned existing structures on the 15-acre parcel at WPAFB, the proposed project site consists of a maintained grassy lawn with sparsely scattered spruce trees surrounding Gate 16A, the outbuilding, and the modular trailer. A stream, identified by WPAFB as SC1D, is located along the 15-acre eastern property boundary that flows in a northerly direction (Figure 2). This stream would not be impacted by proposed construction activities.

Under the No Action alternative, the new USAR facilities would not be constructed at WPAFB and the units stationed in the region would continue to train in facilities with inadequate training features, outdated communication systems, and insufficient space to support their mission requirements.

WPAFB has determined that construction of the USAR facilities would not affect threatened or endangered species known to occur or have occurred at WPAFB. This determination is based on significant development having previously occurred in the project area.

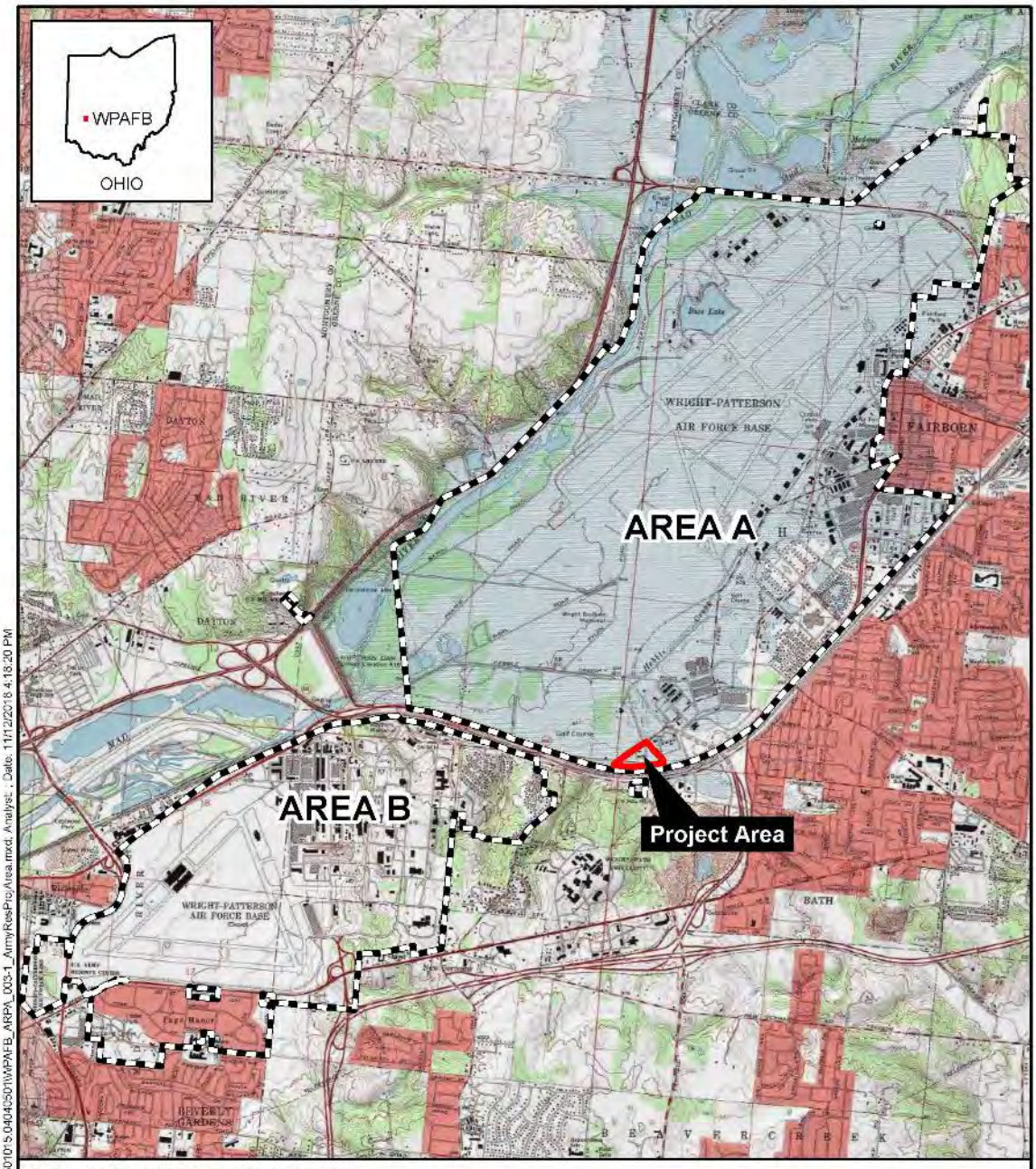
The Natural Heritage Data Request Form is attached. We would appreciate any information from your database that applies to our project area. Please let us know if you concur with the no effect determination. Please contact me at 937/257-4857 or by email at Darryn.Warner@us.af.mil if you have questions. Thank you for your consideration.

Sincerely,

Darryn Warner
Natural Resources Program Manager
Environmental Assets Section
Environmental Branch

cc: John Banford (88 CEG/CEIEA, WPAFB)
Cynthia A. Hassan (APTIM)

Attachment: Natural Heritage Data Request Form
Figure 1 – Topographic Map Project Area
Figure 2 – Project Area Threatened and Endangered Species, Wetlands, and Streams



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Service Layer Credits: Copyright© 2013 National Geographic Society, i-cubed

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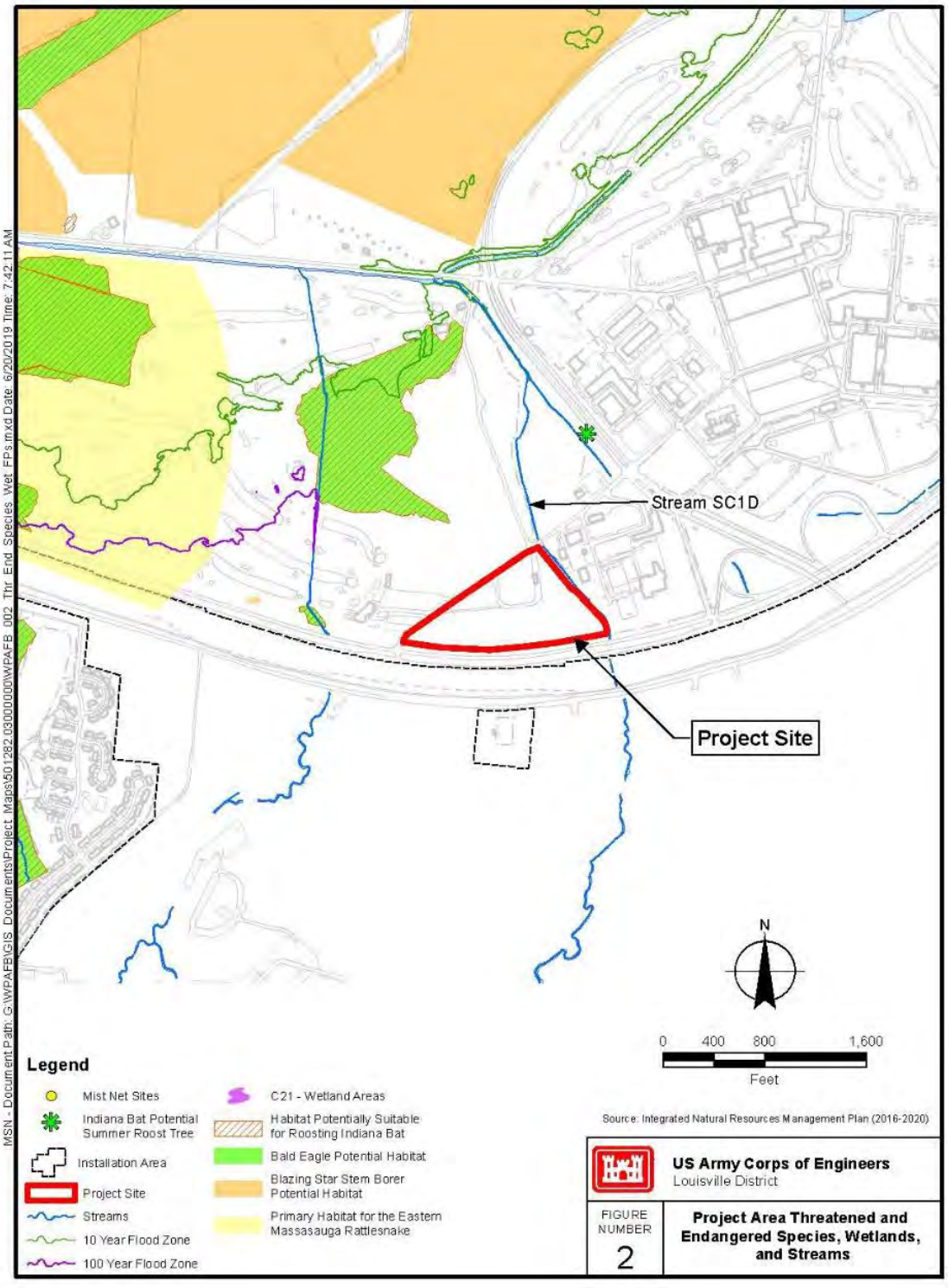
0 0.25 0.5 1 Miles

US Army Corps of Engineers
Louisville District

FIGURE NUMBER	TOPOGRAPHIC MAP PROJECT AREA
1	


MSN - Document Path: G:\WPAFB\GIS Documents\Project Maps\501282.03000000\WPAFB_002_Thr End Species Wet FPs.mxd Date: 6/20/2019 Time: 7:42:11 AM
Stream SC1D
Project Site
N
0 400 800 1,600
Feet
Legend
Mist Net Sites
Indiana Bat Potential Summer Roost Tree
Installation Area
Project Site
Streams
10 Year Flood Zone
100 Year Flood Zone
C21 - Wetland Areas
Habitat Potentially Suitable for Roosting Indiana Bat
Bald Eagle Potential Habitat
Blazing Star Stem Borer Potential Habitat
Primary Habitat for the Eastern Massasauga Rattlesnake
Source: Integrated Natural Resources Management Plan (2016-2020)
US Army Corps of Engineers
Louisville District
FIGURE NUMBER
2
Project Area Threatened and Endangered Species, Wetlands, and Streams

Ohio Department of Natural Resources
DIVISION OF WILDLIFE

DNR 5203 (R1017)

NATURAL HERITAGE DATA REQUEST FORM

ODNR Division of Wildlife
Ohio Natural Heritage Program
2045 Morse Rd., Bldg. G-3
Columbus, OH 43229-6693
Email: NHDRequest@dnr.state.oh.us
Phone: 614-265-6818

WHAT KIND OF REVIEW DO I NEED?

ODNR provides two kinds of project reviews, an Ohio Natural Heritage Database (ONHD) data request and an Environmental Review (ER). ONHD data requests will be processed for projects that meet one of the following four criteria:

- consultant prepared reports for ODOT projects
- completion of OEPA's Ohio Rapid Assessment Method for wetlands
- academic research projects
- other non-development or non-construction projects

As applicable to your project, the ONHD will provide records for state and federally listed plants and animals, high quality plant communities, geologic features, breeding animal concentrations, scenic rivers, protected natural areas (managed areas), and significant unprotected natural areas (conservation sites). A one mile radius around the project site will automatically be searched. Because the ONHD contains sensitive information, it is our policy to provide only the data needed to complete your specific project.

If your project does not meet one of these criteria, you will need to submit it for an ER. An ER includes comments on potential impacts to the species and their habitats, and therefore constitutes coordination with ODNR under NEPA, the Fish & Wildlife Coordination Act, the Federal Water Pollution Control Act, and other laws. If your project requires ODNR coordination, please go to http://realestate.ohiodnr.gov/environmental-review for additional information including appropriate contacts. An ONHD search is included as part of the environmental review process.

INSTRUCTIONS:

Please complete all the information on both sides of this form, sign (required) and email it to NHDRequest@dnr.state.oh.us. Please provide a description of the work to be performed at the project site, and a map detailing your project site boundaries. If you request a GIS response, please also submit a shapefile of your project site (unbuffered). Data requests will be completed within approximately 30 days. There is currently no charge to process requests.

Date: 24June2019 **Company name:** Wright-Patterson Air Force Base

Name of person response letter should be addressed to:

Mr. ☑ **Ms.** ☐ Darryn Warner / Natural Resource Program Manager

Address: 1450 Littrell Road, Building 22

City/State/Zip: WPAFB, Ohio 45433-5209

Phone: 937-257-4857

E-mail address: darryn.warner@us.af.mil

Project Name: Military Construction of U.S. Army Reserve (USAR) Facilities

Project Site Address: Friar Circle, WPAFB, Ohio 45433

Project County: Greene

Project City or Township: WPAFB

Project site is located on the following USGS 7.5 minute topographic quad(s):

Fairborn, Ohio

Project latitude and longitude: Latitude: North 39 47' 33" / Longitude: West -84 3' 27"

Description of work to be performed at the project site:

Demolition of two existing structures (Gate 16A and an outbuilding) on a 15-acre parcel in Area A at WPAFB and construction of three new structures during two separate phases. Phase I construction would occur in Fiscal Year (FY) 2021 - a 16,128 square foot (sf) facility would be constructed; FY 2024 - a 46,000 sf facility and 2,500 sf storage facility would be constructed (see attached letter for full description of Proposed Action).

How do you want your data reported? Both formats provide the same data. The manual search is most appropriate for small scale projects or for those without GIS capabilities. With this option we will send you a letter with a list of records and a map showing their location. If you request a GIS shapefile, we will send you a letter and shapefile of data layers. You will then need to make your own map and list of data for your report. You must have GIS capabilities. If you do not make a selection or if you choose both options, a manual search will be performed (Please choose only one option).

☑ **Printed list and map (manual search)** **OR** ☑ **GIS shapefile (computer search)**

The standard data we search includes state and federally listed plants and animals, high quality plant communities, geologic features, breeding animal concentrations, scenic rivers, managed areas, and conservation sites, including a one mile radius around your project area. List any information in addition to this that you require:

None

How will the information be used?

NEPA Environmental Assessment Report

The chief of the Division of Wildlife has determined that the release of the ONHD data you have requested could be detrimental to the conservation of a species or unique natural feature. Pursuant to section 1531.04 of the Ohio Revised Code, this information is not subject to section 149.43 of the Revised Code. By signing below, you certify that the data provided will not be disclosed, published, or distributed beyond the scope of your project.

Signature _____ **Date:** 24June2019

Ohio Department of Natural Resources
MIKE DEWINE, GOVERNOR MARY MERTZ, DIRECTOR

Office of Real Estate
Paul R. Baldridge, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6649
Fax: (614) 267-4764

August 5, 2019

Darryn M. Warner
Department of the Air Force
88 CEG/CEIEA
1450 Littrell Rd. Bldg. 22
WPAFB, OH 45433

Re: 19-563; Military Construction of U.S. Army Reserve (USAR) Facilities

Project: The proposed project involves the demolition of two existing structures (Gate 16A and an outbuilding) on a 15-acre parcel in Area A at WPAFB and construction of three new structures during two separate phases.

Location: The proposed project is located in Fairborn Township, Greene County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Northern adder's-tongue (*Ophioglossum pusillum*), T
Beer's noctuid (*Papaipema beeriana*), E
Sedge wren (*Cistothorus platensis*), SC
Eastern massasauga (*Sistrurus catenatus*), E, FT
Dayton Aviation Heritage – National Park Service

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. Presence of the Indiana bat has been established in the area, and therefore additional summer surveys would not constitute presence/absence in the area. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel, the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel, and the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, and the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the tonguetied minnow (*Exoglossum laurae*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of

habitat at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as adjacent drier upland habitat. Due to the location, the type of habitat at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus cyaneus*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 to August 1. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

John Kessler
Environmental Services Administrator

U.S. Fish and Wildlife Service Consultation Letters:

1. **WPAFB Request – 24Jun19**
2. **USFWS Response – 9Jul19**

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 88TH AIR BASE WING (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

June 24, 2019

88 CEG/CEIEA
1450 Littrell Road, Building 22
Wright-Patterson AFB OH 45433-5209

Ms. Patrice Ashfield
Field Office Supervisor
U.S. Fish and Wildlife Service
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230

Dear Ms. Ashfield:

Wright Patterson Air Force Base (WPAFB) is preparing an Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 to address environmental impacts associated with a proposal to construct three facilities at WPAFB that would occur during two separate phases. Phase I would occur in Fiscal Year (FY) 2021 during which time an approximate 16,128 square foot (sf) facility would be constructed. Phase II would occur in FY 2024 during which time an approximate 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed. Each facility would be constructed, operated, and maintained by the U.S. Army Reserve (USAR). Construction of the facilities would enable USAR to correct inadequate training space and overcrowded conditions currently experienced off-site by soldiers at three nearby regional facilities. WPAFB is seeking informal consultation with the U.S. Fish and Wildlife Service in compliance with Section 7 of the Endangered Species Act regarding the proposal.

The geographic location of the proposed project area is Greene County; Latitude North 39° 47’ 33” / Longitude West -84° 3’ 27”, as shown on Figure 1.

Proposed Action

The Proposed Action consists of constructing three USAR facilities at WPAFB on a 15-acre grass-covered lawn. Gate 16A, a commercial truck inspection gate, exists on the northeastern portion of the proposed site. In addition, a vacant outbuilding (former Gate 16A) and a vacant modular trailer exist in the vicinity of Gate 16A. Gate 16A and the outbuilding would be demolished and removed from the project site prior to construction activities and the modular trailer would be removed from the site. The Proposed Action consists of two distinct phases of construction for FY 2021 and 2024, described as follows:

Phase I – FY 2021
A 16,128 sf facility would be constructed that includes a drive-thru work bay and safety aisles, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. This facility would include concrete aprons, vehicle wash rack/platform(s), bi-level equipment loading ramp, and parking space for military and privately-owned vehicles.

Phase II – FY 2024
A 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed on the same 15-acre parcel as described above for Phase I. Phase II activities would consolidate two existing aging and severely over-utilized U.S. Army Reserve Center facilities in the region (LaPointe, Ohio and Troy, Ohio) into a single facility at WPAFB that would not only be compliant with antiterrorism/force protection (ATFP) standoff requirements, but would also meet the training needs of assigned units.

Other than the aforementioned existing structures on the 15-acre parcel at WPAFB, the proposed project site consists of a maintained grassy lawn with sparsely scattered spruce trees surrounding Gate 16A, the outbuilding, and the modular trailer. A stream, identified by WPAFB as SC1D, is located along the 15-acre eastern property boundary that flows in a northerly direction (Figure 2). This stream would not be impacted by proposed construction activities.

Under the No Action alternative, the new USAR facilities would not be constructed at WPAFB and the units stationed in the region would continue to train in facilities with inadequate training features, outdated communication systems, and insufficient space to support their mission requirements.

WPAFB has determined three federally-listed endangered species: Indiana bat (*Myotis sodalis*), Clubshell mussel (*Pleurobema clava*) and Snuffbox mussel (*Epioblasma triquerta*) are known to or may occur on WPAFB. WPAFB has also determined three federally-listed threatened species: Northern long-eared bat (*Myotis septentrionalis*), Eastern massasauga rattlesnake (*Sistrurus catenatus*), and Rayed bean mussel (*Villosa fabalis*) may also occur on WPAFB. Based on our review of the January 2018 revised list for Greene County (https://www.fws.gov/midwest/Endangered/lists/ohio-cty.html), no other endangered, threatened, or proposed species are known to or may occur in the project area. No critical habitat has been designated or proposed for WPAFB.

WPAFB has determined that construction of the USAR facilities would not affect threatened or endangered species known to occur or have occurred at WPAFB. This determination is based on significant development having previously occurred in the project and surrounding area.

Because the project area is not within suitable habitat nor will any potential habitat be disturbed, no listed species would be directly or indirectly impacted. Furthermore, there are no impacts to trees and/or wetlands or other native habitat that supports the above listed species. WPAFB has therefore determined the proposed project will have no effect on listed species and further consultation with your office is not necessary. Your written concurrence with this determination of no effect is, however, requested.

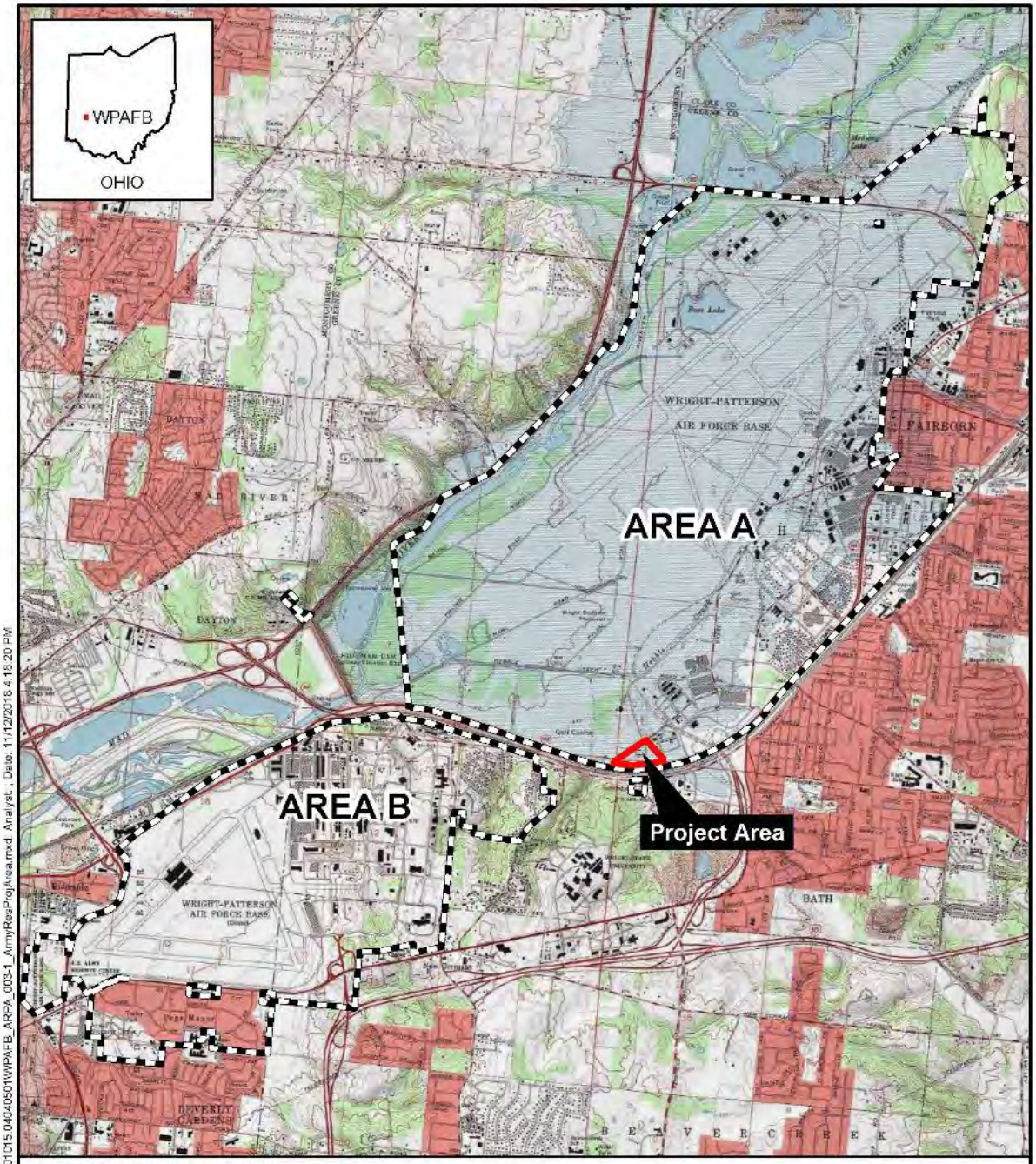
Thank you for your assistance. If there are any questions or additional detail is needed, please contact me by telephone at 937/257-4857 or by email at Darryn.Warner@us.af.mil.

Sincerely,

Darryn M. Warner
Natural Resources Program Manager
Environmental Assets Section
Environmental Branch

cc: John Banford (88 CEG/CEIEA, WPAFB)
Cynthia A. Hassan (APTIM)

Attachments: Figure 1 – Topographic Map Project Area
Figure 2 – Project Area Threatened and Endangered Species, Wetlands, and Streams Map



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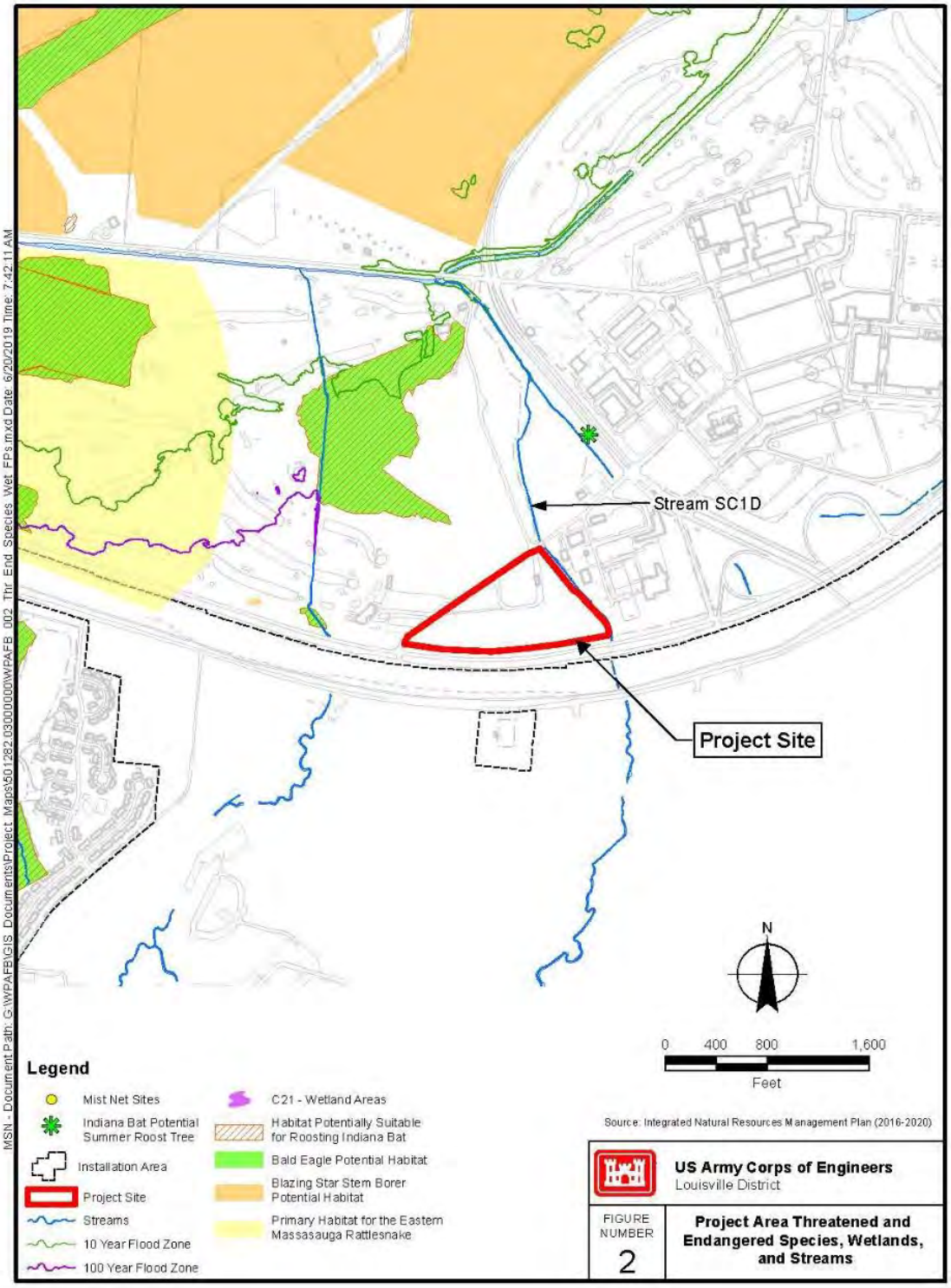
US Army Corps of Engineers
Louisville District

FIGURE NUMBER	TOPOGRAPHIC MAP PROJECT AREA
1	


MSN - Document Path: G:\WPAFB\GIS_Documents\Project Maps\501282.03000000\WPAFB_002_Thr_End_Species_Wet_FPs.mxd Date: 6/20/2019 Time: 7:42:11 AM
Stream SC1D
Project Site
N
0 400 800 1,600
Feet
Legend
Mist Net Sites
Indiana Bat Potential Summer Roost Tree
Installation Area
Project Site
Streams
10 Year Flood Zone
100 Year Flood Zone
C21 - Wetland Areas
Habitat Potentially Suitable for Roosting Indiana Bat
Bald Eagle Potential Habitat
Blazing Star Stem Borer Potential Habitat
Primary Habitat for the Eastern Massasauga Rattlesnake
Source: Integrated Natural Resources Management Plan (2016-2020)
US Army Corps of Engineers
Louisville District
FIGURE NUMBER
2
Project Area Threatened and Endangered Species, Wetlands, and Streams

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3
To: WARNER, DARRYN M CIV USAF AFMC 88 CEG/CEIEA
Subject: [Non-DoD Source] Construction of Three Facilities for USAR Training Space, Greene County
Date: Tuesday, July 9, 2019 3:01:29 PM

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

TAILS# 03E15000-2019-TA-1488

Dear Mr. Warner,

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service should be initiated to assess any potential impacts.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Patrice M. Ashfield
Field Office Supervisor

State Historic Preservation Office (SHPO) Consultation Letter:

1. **WPAFB Notification – 19Jul19**
2. **SHPO Response – 16Aug19**

July 19, 2019

Mr. Paul F. Woodruff, CRM
88 CEG/CEIEA
1450 Littrell Road
Wright-Patterson AFB OH 45433-5209

Ms. Amanda Schraner Terrell
Deputy State Historic Preservation Officer
Ohio Historic Preservation Office
800 East 17th Avenue
Columbus OH 43211-2497

Dear Ms. Terrell

Wright-Patterson Air Force Base (WPAFB) is proposing a project in two phases for the construction of three U.S. Army Reserve training facilities at WPAFB, Ohio (see Attachment 1). Phase I would occur in Fiscal Year (FY) 2021 during which time an approximate 16,128 square foot (sf) facility would be constructed. Phase II would occur in FY24 during which time an approximate 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed. It is our opinion that this proposed action will have no adverse effects on historic properties. In accordance with Section 306108 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 Code of Federal Regulations (CFR) Part 800, the Air Force is advising you of a proposed undertaking that has the potential to affect historic properties, and we are submitting the following documentation.

Description of the undertaking. WPAFB proposes the construction of three U.S. Army Reserve (USAR) facilities at WPAFB on a fifteen-acre grass-covered area near Gate 16A. Gate 16A is located at the south end of Patterson Field and incorporates a commercial truck inspection area (Facility 11465) on the northeastern portion of the proposed site. There is also a small vacant outbuilding, which was the former gate check house for Gate 16A, and a vacant modular trailer existing in the vicinity of Gate 16A (see Attachment 1). The gate check house and Facility 11465 would be demolished and removed from the project site prior to construction activities, and the modular trailer would be removed from the site. The Proposed Action consists of two distinct phases of construction for FY21 and FY24, described as follows:

Phase I – FY21
A 16,128 sf facility would be constructed that includes a drive-thru work bay and safety aisles, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution,

classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. This facility would include concrete aprons, vehicle wash rack/platform(s), bi-level equipment loading ramp, and parking space for military and privately-owned vehicles.

Phase II – FY24
A 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed on the same 15-acre parcel as described above for Phase I. Phase II activities would consolidate two existing aging and severely over-utilized U.S. Army Reserve Center facilities in the region (LaPointe, Ohio and Troy, Ohio) into a single facility at WPAFB that would be compliant with antiterrorism/force protection (ATFP) standoff requirements and meet the training needs of assigned units.

No design drawings are available at this time. The purpose of this consultation letter is to accommodate completion of an Environmental Assessment for the proposed MILCON.

Description of steps taken to identify historic properties. In accordance with 36 CFR 800.4(c) WPAFB has evaluated the historic significance of base facilities applying the National Register (NR) criteria. WPAFB has assessed all buildings on the installation that are 50 years old or older, and has additionally assessed buildings for exceptional significance relating to the Cold War. The Area of Potential Effects (APE) for this undertaking is defined as the general area shown circled in red on the mapping in both Attachment 1 and Attachment 2.

There are three existing facilities in the APE: The first facility is Facility 11465, which is the current Commercial Vehicle Inspection building for Gate 16A. A new commercial gate is currently under construction at the north end of the base, and building 11465 would be demolished once the new gate is complete. Facilty 11465 was built in 2008 and has no historical significance of any note; therefore, it is not recommended as eligible for listing on the NR. The second facility is the outbuilding which served as the gate inspection building for Gate 16A. There is very little information available about this facility. It was constructed sometime between 1985 and 2008, when Facility 11465 was constructed, and is a small commonplace metal shed that is bolted to the concrete slab visible in the photos. WPAFB does not consider this building to be eligible for listing on the NR. The third building is a modular trailer that would be moved from the site. This trailer is not a permanent facility and is also recommended as not eligible for the NR.

Description of the potentially affected property. Development of this site occurred between 1942 and 1945, when the area was graded and several barracks were built. In addressing stormwater runoff a set of manmade ditches were constructed during grading of the site. These ditches are still present today visible in current photo number 6 in Attachment 2, however the barracks no longer exist. The ditches and barracks can easily be seen in the aerials in Attachment 2. Currently, the proposed project site consists of a maintained grassy lawn with sparsely scattered spruce trees surrounding Gate 16A, the outbuilding, and the modular trailer. A stream, identified by WPAFB as SC1D, is located along the eastern property boundary that flows in a northerly direction. This stream would not be impacted by proposed construction activities. The APE also features a portion that serves as a 300-foot buffer for a landfill/earthfill to the

north (Attachment 2). The land has never been a part of an archeological survey, however in 1997 Great Lakes Archaeological Research Center conducted an archaeological, geomorphological, and land use history of WPAFB. Information derived from these studies was used to characterize the landscape in terms of potential archaeological sites. This area of the base was given a low probability for undisturbed archaeological deposits. Additionally this area has seen significant disturbance starting in the 1940s.

Description of the undertaking's effects on historic properties. WPAFB has reviewed the Criteria of Adverse Effects and has determined that none apply to the activities that would be carried out in this undertaking. It is our opinion that the undertaking, as proposed, would not adversely affect historic properties. This determination was made for the following reasons: 1) the three facilities located on the project area are not currently considered eligible for listing on the NR, and 2) due to the various ground disturbances in the Area of Potential Effects, WPAFB believes there is little chance of any archaeological resources existing in this area. WPAFB concludes that no historic properties would be affected by this undertaking.

In our opinion, Pursuant to 36 CFR §800.5(b), the Air Force has determined that there would be no adverse effect to historic properties by the proposed project. Attached for your review are copies of relevant documents supporting the Air Force's findings and determinations. Please review the information and inform us of your concurrence with our determination. Should you have questions, I can be reached at 937-257-1374 or via email at paul.woodruff@us.af.mil.

Sincerely

Paul F. Woodruff
Cultural Resources Manager
Environmental Branch

2 Attachments:
1. Area A Mapping Doc
2. Photos and Maps

Ohio Historic Preservation Office (SHPO) Consultation Letter

1. **Attachment 1 - Area A Mapping**
2. **Attachment 2 - Photos and Maps**

Attachments may be available upon request, please contact:

88 ABW / Public Affairs
5135 Pearson Road
Building 10, Room 252
Wright-Patterson AFB, OH 45433
88abw.pa@us.af.mil

OHIO HISTORY CONNECTION

August 16, 2019

In reply, please refer to:
2019-GRE-45844

Paul F. Woodruff, CRM
88 CEG/CEIEA
1450 Littrell Road
Wright-Patterson Air Force Base, Ohio 45433-5209

RE: Construction of U.S. Army Reserve Training Facilities, WPAFB, Ohio

Dear Mr. Woodruff:

This letter is in response to correspondence received on July 25, 2019 Our comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

Wright-Patterson Air Force Base is proposing to construct three new U.S. Army Reserve Training Facilities in two phases of construction during Fiscal Year 2021 and Fiscal Year 2024. The location of the proposed facilities is adjacent to the perimeter of the facility near Gate 16A and SR 444. A truck inspection facility that has been identified as Facility 11465 and a former gate check building would be demolished as part of this phased project. The project area has been well documented as having been disturbed and graded after previous construction activities.

Based on the information submitted, it is our opinion that the proposed project will have no adverse effect on historic properties at Wright-Patterson Air Force Base. No further coordination with this office is necessary, unless there is a change in the proposed project.

If you have any questions about this letter or our review of this project, please contact me at ladkins@ohiohistory.org or (614) 298-2000. Thank you for your cooperation.

Sincerely,

Lisa Adkins, Architecture Reviews Manager
Dept. of Resource Protection and Review

RPR Serial No: 1080096

Native American Tribal Consultation Letters:

1. WPAFB Notification – 19Jul19

DEPARTMENT OF THE AIR FORCE
88TH CIVIL ENGINEER GROUP (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

July 19, 2019

Mr. Paul F. Woodruff, CRM
88 CEG/CEIEA
1450 Littrell Road
Wright-Patterson AFB OH 45433-5209

Distribution

Dear Tribal Representative

Wright-Patterson Air Force Base (WPAFB) is proposing a project in two phases for the construction of three U.S. Army Reserve training facilities at WPAFB, Ohio (see Attachment 1). Phase I would occur in Fiscal Year (FY) 2021 during which time an approximate 16,128 square foot (sf) facility would be constructed. Phase II would occur in FY24 during which time an approximate 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed. It is our opinion that this proposed action will have no adverse effects on historic properties. In accordance with Section 306108 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 Code of Federal Regulations (CFR) Part 800, the Air Force is advising you of a proposed undertaking that has the potential to affect historic properties, and we are submitting the following documentation.

Description of the undertaking. WPAFB proposes the construction of three U.S. Army Reserve (USAR) facilities at WPAFB on a fifteen-acre grass-covered area near Gate 16A. Gate 16A is located at the south end of Patterson Field and incorporates a commercial truck inspection area (Facility 11465) on the northeastern portion of the proposed site. There is also a small vacant outbuilding, which was the former gate check house for Gate 16A, and a vacant modular trailer existing in the vicinity of Gate 16A (see Attachment 1). The gate check house and Facility 11465 would be demolished and removed from the project site prior to construction activities, and the modular trailer would be removed from the site. The Proposed Action consists of two distinct phases of construction for FY21 and FY24, described as follows:

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A 16,128 sf facility would be constructed that includes a drive-thru work bay and safety aisles, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays. This facility would include concrete aprons, vehicle wash rack/platform(s), bi-level equipment loading ramp, and parking space for military and privately-owned vehicles.

Phase II – FY24
A 46,000 sf training facility and a 2,500 sf unheated storage facility would be constructed on the same 15-acre parcel as described above for Phase I. Phase II activities would consolidate two existing aging and severely over-utilized U.S. Army Reserve Center facilities in the region (LaPointe, Ohio and Troy, Ohio) into a single facility at WPAFB that would be compliant with antiterrorism/force protection (ATFP) standoff requirements and meet the training needs of assigned units.

No design drawings are available at this time. The purpose of this consultation letter is to accommodate completion of an Environmental Assessment for the proposed MILCON.

Description of steps taken to identify historic properties. In accordance with 36 CFR 800.4(c) WPAFB has evaluated the historic significance of base facilities applying the National Register (NR) criteria. WPAFB has assessed all buildings on the installation that are 50 years old or older, and has additionally assessed buildings for exceptional significance relating to the Cold War. The Area of Potential Effects (APE) for this undertaking is defined as the general area shown circled in red on the mapping in both Attachment 1 and Attachment 2.

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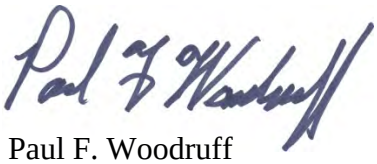
base was given a low probability for undisturbed archaeological deposits. Additionally this area has seen significant disturbance starting in the 1940s.

Description of the undertaking's effects on historic properties. WPAFB has reviewed the Criteria of Adverse Effects and has determined that none apply to the activities that would be carried out in this undertaking. It is our opinion that the undertaking, as proposed, would not adversely affect historic properties. This determination was made for the following reasons: 1) the three facilities located on the project area are not currently considered eligible for listing on the NR, and 2) due to the various ground disturbances in the Area of Potential Effects, WPAFB believes there is little chance of any archaeological resources existing in this area. WPAFB concludes that no historic properties would be affected by this undertaking.

In our opinion, Pursuant to 36 CFR §800.5(b), the Air Force has determined that there would be no adverse effect to historic properties by the proposed project. Attached for your review are copies of relevant documents supporting the Air Force's findings and determinations. Please review the information and inform us of your concurrence with our determination. Should you have questions, I can be reached at 937-257-1374 or via email at paul.woodruff@us.af.mil.

Sincerely



Paul F. Woodruff
Cultural Resources Manager
Environmental Branch

2 Attachments:
1. Area A Mapping Doc
2. Photos and Maps

Distribution:
Keweenaw Bay Indian Community, Gary Loonsfoot Jr., THPO
Sac and Fox of the Mississippi in Iowa, Johnathan Buffalo, Director/NAGPRA Rep
Seneca Cayuga Tribe of Oklahoma, William Tarrant, THPO
Seneca Nation of Indians, Jay Toth, Tribal Archaeologist
The Saginaw Chippewa Indian Tribe, William Johnson, THPO

Notice of Availability (NOA)

PUBLIC NOTICE
Notice of Availability

Draft-Final
Environmental Assessment
Military Construction
U.S. Army Reserve
Facilities
Wright-Patterson AFB

Beginning November 17, 2020 through November 30, 2020, the United States Air Force will accept comments on the Environmental Assessment (EA) to construct three structures on a 15-acre parcel at Wright-Patterson Air Force Base (WPAFB). Construction would occur under two separate phases and fiscal years (FY): Phase I in FY 2021 and Phase II in FY 2024. The U.S. Army Reserve (USAR) would consolidate and relocate operations from multiple undersized facilities in the Dayton region to WPAFB to meet their units' training readiness needs. The Proposed Action would not have an adverse impact on the environment–indicating that a Finding of No Significant Impact (FONSI) would be appropriate. The public is invited to review documents at the Greene County Public Library, Fairborn Branch, located at 1 East Main Street, Fairborn, OH 45324-4701, (937) 878-9383 or to access the documents online at http://www.wpafb.af.mil/units/cev. Written comments or inquiries can be mailed to: 88 ABW / Public Affairs, 5135 Pearson Road, Bldg 10, Room 252, WPAFB, OH 45433 or emailed to: 88abw.pa@us.af.mil. The Air Force is aware of the potential impact of the ongoing coronavirus (COVID-19) pandemic on the usual methods of access to information and ability to communicate, such as closure of local public libraries and challenges with the sufficiency of the internet. To ensure that the public and all interested stakeholders have the opportunity to participate fully in this Environmental Assessment process, we are available to discuss and help resolve issues involving access to the Draft EA and Proposed FONSI, or the ability to comment. Please do not hesitate to contact us by email at 88abw.pa@us.af.mil or phone at (937)522-3252.

Appendix C

ACAM Report

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

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Instruction 32-7040, Air Quality Compliance And Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: WRIGHT-PATTERSON AFB
State: Ohio
County(s): Greene
Regulatory Area(s): Dayton-Springfield, OH

b. Action Title: NEPA ENVIRONMENTAL ASSESSMENT IN SUPPORT OF MILITARY CONSTRUCTION AT WRIGHT-PATTERSON AIR FORCE BASE

c. Project Number/s (if applicable): CONTRACT NUMBER W912QR-16-D-0008; DELIVERY ORDER W912QR19F0114; PROJECT NUMBER 501282

d. Projected Action Start Date: 3 / 2021

e. Action Description:

The Proposed Action consists of constructing three structures on a 15-acre parcel of land located at Wright-Patterson Air Force Base (WPAFB) in Dayton, Ohio. The proposed 15-acre parcel consists of a partially grass-covered lawn with sparse trees (spruce trees). The Proposed Action consists of two distinct phases of construction that are proposed for Fiscal Years (FYs) 2021 and 2024, as described below.

Phase I – FY 2021
A 16,128 sf collocated Area Maintenance Support Activity (AMSA) and Vehicle Maintenance Shop (VMS) building would be constructed on a 15-acre parcel at WPAFB. The proposed AMSA and VMS facility would accommodate four Army Reserve units and mechanics from AMSA #58. The building would be constructed to the modified Tactical Equipment Maintenance Facility (TEMF) standard design consisting of 32 feet (ft) x 96 ft drive-thru work bays (comprised of six 16 ft x 32 ft work areas per bay), work bay safety aisle, equipment alcove, tool/parts storage, flammable/controlled waste storage, fluid distribution, classroom/break area, restrooms/showers/lockers, standard Army tool set (SATS) trailer canopy, maintenance administrative support areas, and an overhead travelling crane spanning all work bays.

Phase II – FY 2024
Phase II involves construction of a 46,000 square foot (sf) U.S. Army Reserve Center (USARC) training building and 2,500 unheated storage (UHS) building on the same 15-acre WPAFB site as the AMSA and VMS facilities as described above for FY 2021. Proposed construction would be designed to a minimum life of 40 years in accordance with Unified Facilities Code (UFC) 1-200-02, including energy efficiencies, building envelope, and integrated building systems performance. The project would consolidate two aging and severely over-utilized USARCs (LaPointe and Troy Memorial) into a new facility that would not only be compliant with anti-terrorism force protection (ATFP) standoff requirements, but would also meet the training needs of assigned units.

f. Point of Contact:

Name: Cindy Hassan
Title: Senior Risk Assessor
Organization: APTIM Federal Services
Email: cindy.hassan@aptim.com
Phone Number: 513-782-4957

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

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

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2021

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Dayton-Springfield, OH			
VOC	2.067	100	No
NOx	6.747	100	No
CO	16.393		
SOx	0.087		
PM 10	30.159		
PM 2.5	0.287		
Pb	0.000		
NH3	0.015		
CO2e	1627.4		

2022

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Dayton-Springfield, OH			
VOC	1.914	100	No
NOx	4.969	100	No
CO	42.098		
SOx	0.292		
PM 10	0.127		
PM 2.5	0.233		
Pb	0.000		
NH3	0.025		
CO2e	734.3		

2023

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Dayton-Springfield, OH			
VOC	1.914	100	No
NOx	4.969	100	No
CO	42.098		
SOx	0.292		
PM 10	0.127		
PM 2.5	0.233		
Pb	0.000		
NH3	0.025		
CO2e	734.3		

2024

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

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Dayton-Springfield, OH			
VOC	4.308	100	No
NOx	8.052	100	No
CO	46.816		
SOx	0.302		
PM 10	14.132		
PM 2.5	0.349		
Pb	0.000		
NH3	0.033		
CO2e	1751.1		

2025 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Dayton-Springfield, OH			
VOC	1.914	100	No
NOx	4.969	100	No
CO	42.098		
SOx	0.292		
PM 10	0.127		
PM 2.5	0.233		
Pb	0.000		
NH3	0.025		
CO2e	734.3		

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