

FINAL

ENVIRONMENTAL ASSESSMENT

**FOR CONSTRUCTION OF THE
RADAR TEST RANGES AND TARGET TOWER AND
IMPLEMENTATION OF BRAC05 RECOMMENDATIONS AT
TOBYHANNA ARMY DEPOT, PENNSYLVANIA**

Prepared by:

AGEISS Environmental, Inc.

for

Tobyhanna Army Depot, Tobyhanna, Pennsylvania

and the

U.S. Army Corps of Engineers, Mobile District



May 2008

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**FINDING OF NO SIGNIFICANT IMPACT (FNSI) FOR THE
CONSTRUCTION OF THE
RADAR TEST RANGES AND TARGET TOWER AND
IMPLEMENTATION OF BASE REALIGNMENT AND CLOSURE (BRAC)
05 RECOMMENDATIONS AT
TOBYHANNA ARMY DEPOT (TYAD), PENNSYLVANIA**

Pursuant to the Council on Environmental Quality (CEQ) regulations (40 CFR 1400-1508) for implementing the procedural provisions of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et. seq.) and the U.S. Department of Army Regulation 32 CFR 651 (Environmental Analysis of Army Actions; Final Rule), as well as policy and guidance provided by the BRAC Guidelines for Compliance with the NEPA, TYAD conducted an environmental assessment (EA) of potential environmental effects associated with implementation of BRAC realignment actions.

Purpose and Need. On September 8, 2005, the BRAC Commission recommended certain realignment actions at TYAD, Tobyhanna, Pennsylvania. The President approved these recommendations on September 23, 2005. The recommendations were forwarded to Congress and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

The BRAC Commission has recommended the consolidation of depot maintenance at the Marine Corps Logistical Center in Barstow, California and transfer of the following workload to TYAD: electronic components (non-airborne), electro-optics/night vision/forward-looking infrared, generators, ground support equipment, radar and radio.

Description of the Proposed Action. To support the BRAC recommendations, the proposed action includes the following components for relocation of certain radar test ranges from Barstow, California to TYAD: construction of two radar test sites, one with a 68-foot diameter radome; erection of a 340-foot high target tower, construction of a road approximately 1,000 feet long, installation of utilities along the road to power the radar devices, and renovation of a warehouse within TYAD's industrial complex to a test lab space for maintenance and repair of the radar systems, together with supporting office space functions.

The proposed action would continue similar work and missions that currently exist at TYAD, and provide additional testing and maintenance areas for TYAD's radar testing mission. The Army estimates that construction would begin in September 2008 and be completed in November 2008.

TYAD currently employs approximately 5,800 people. This figure includes civilian, military, non-appropriated fund employees, government tenants and contractors. The proposed action will entail 121 additional employees at TYAD. Most of these people will be located at the test lab space and work during TYAD's normal working hours. The radar test sites will operate on a regular basis with a few employees from the test lab space and the target tower will operate on a very limited basis with a few employees from the test lab space. The new facilities included in the proposed action will allow for effective and efficient utilization of resources and personnel in support of the Army's mission.

Alternatives Considered. Potential locations for the new radar test sites, tower and test lab were screened for inclusion in this EA. Screening criteria consists of operational constraints, safety constraints, geographic constraints, and existing facility and mission constraints. Based on the selection criteria, two alternatives, the Preferred Alternative and the No Action Alternative, were developed for evaluation in the EA.

The Preferred Alternative. Due to the nature of the radar systems, geographic relief, line-of-site requirements and a location lacking other radar frequencies largely dictated the site selection. The Preferred Alternative is comprised of three selected locations. The highest point on Powder Smoke Ridge was selected for the new radar test sites approximately 1,000 feet northwest of Building 54. The target tower would be located about 0.75 miles southwest of the radar test sites. Building 1B, Bay 4, located within TYAD's industrial complex, would be renovated for the test lab space. Construction of the radar test sites would require tree clearing of approximately 32 acres, the majority of which would occur on Powder Smoke Ridge.

The No Action Alternative. CEQ regulations implementing the provisions of NEPA require federal agencies to consider a No Action Alternative. These regulations define the No Action Alternative as the continuation of existing conditions and their effects on the environment, without implementation of, or in lieu of, a proposed action. Because of the compulsory nature of the 2005 BRAC Commission's recommendations, once Congress has allowed them to become law, the Army may not select the No Action Alternative with respect to the relocation of functions and personnel to TYAD.

Factors Considered in Determining that an Environmental Impact Statement is not Required. No significant environmental impacts were identified in the EA. Impacts were analyzed for land use, aesthetics and visual resources, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomic, transportation, utilities, and hazardous and toxic substances. Likewise, the proposed action, when combined with the reasonably foreseeable future construction and maintenance projects that were planned to occur on TYAD, would not result in significant cumulative effects.

Conclusion. Based on the environmental impact analyses described in the EA, which is hereby incorporated into this FNSI, it has been determined that implementation of the proposed action would not have a significant impact on the quality of the natural or the human environment. Because no significant environmental impact would result from implementation of the proposed action, an environmental impact statement is not required and will not be prepared.

Public Comment. Persons wishing to comment or obtain a copy of the EA or to inquire into this FNSI may contact Mr. Kevin Toolan by phone: (570) 895-6552 or by e-mail: kevin.toolan@us.army.mil within 30 days of the publication of this notice. A copy of the EA will also be posted for public review at the Pocono Mountain Public Library, 5540 Memorial Boulevard (Route 611), Coolbaugh Township Municipal Center, Tobyhanna, Pennsylvania and on the BRAC website at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm.

Date: 29 May 2008

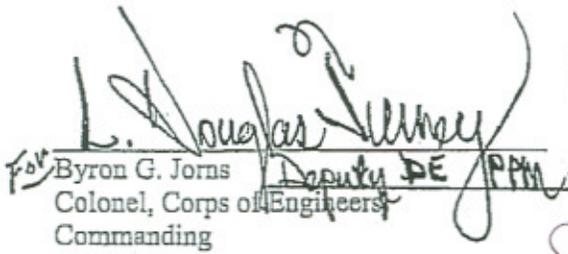


Ronald P. Alberto
Colonel, US Army
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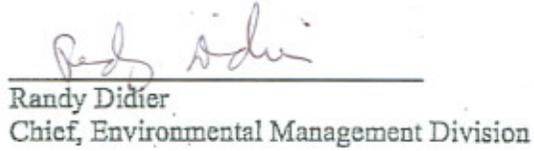
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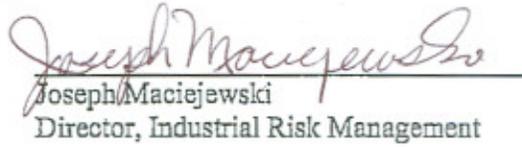
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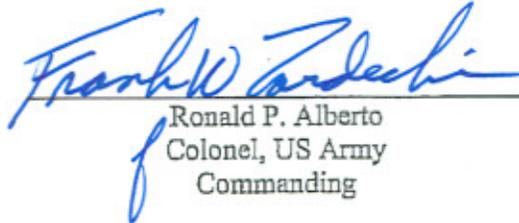
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ENVIRONMENTAL ASSESSMENT

LEAD AGENCY: Mobile District, U.S. Army Corps of Engineers

TITLE OF PROPOSED ACTION: Environmental Assessment for the Construction of the Radar Test Ranges and Target Tower and Implementation of BRAC05 Recommendations at Tobyhanna Army Depot, Pennsylvania

AFFECTED JURISDICTIONS: Coolbaugh Township, Monroe County, Pennsylvania

PREPARED BY: AGEISS Environmental, Inc.

APPROVED BY: Colonel Ronald P. Alberto, U.S. Army Tobyhanna Army Depot

ABSTRACT: On September 8, 2005, the Defense Base Closure and Realignment Commission (“BRAC Commission”) recommended that certain realignment actions occur at Tobyhanna Army Depot (TYAD) in Tobyhanna, Pennsylvania. These recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The Congress did not alter any of the BRAC Commission’s recommendations, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended. The BRAC Commission has recommended the following:

- Consolidate depot maintenance at the Marine Corps Logistical Center in Barstow, California, and transfer the following workload to TYAD: electronic components (non-airborne), electro-optics/night vision/forward-looking infrared, generators, ground support equipment, radar, and radio.
- Realign the Naval Weapons Station Seal Beach, California by relocating depot maintenance of electronic components (non-airborne), fire control systems and components, radar, and radio to TYAD.

The first recommendation is the subject of this environmental assessment (EA). To enable implementation of these recommendations, the Army proposes to provide necessary facilities to support the expansion of radar testing at TYAD. This EA analyzes and documents environmental effects associated with the Army’s Proposed Action at TYAD. Details of the Proposed Action are described in Section 2.0.

The second recommendation was addressed in a separate National Environmental Policy Act (NEPA) document, a Record of Environmental Consideration (REC), dated November 21, 2006. A REC was prepared because this action was categorically excluded under the provisions of 32 Code of Federal Regulations (CFR) 651, Appendix B, Section II (b)(12) and (c)(2), as TYAD would not be significantly altered by the completion of this project.

Based on the environmental impact analyses described in this EA it has been determined that implementation of the Proposed Action would not have a significant impact on the quality of the natural or the human environment and would not require mitigation to offset impacts. Because no significant environmental impact would result from implementation of the Proposed Action, an environmental impact statement is not required and a Finding of No Significant Impact (FNSI) will be published in accordance with NEPA.

REVIEW PERIOD: A Notice of Availability (NOA) will be published in *The Pocono Record*, which will announce the beginning of the 30-day public review period. In the NOA, interested parties will be invited to review and comment on the EA and Draft FNSI, and will be informed of the fact that the EA and Draft FNSI will be available via the World Wide Web at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm and at the Pocono Mountain Public Library, 5540 Memorial Boulevard (Route 611), Coolbaugh Township Municipal Center, in Tobyhanna, Pennsylvania.

Reviewers will be invited to submit comments on the EA and Draft FNSI during the 30-day public comment period via mail, fax, or e-mail to the following:

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EXECUTIVE SUMMARY

ES.1 Introduction

This environmental assessment (EA) analyzes and documents environmental effects associated with the U.S. Army's Proposed Action at Tobyhanna Army Depot (TYAD) in Tobyhanna, Pennsylvania. To enable implementation of Base Realignment and Closure (BRAC) 2005 recommendations, the Army proposes to provide necessary facilities to support the changes in force structure.

This EA was developed in accordance with the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.), Army Regulation 200-2/Chapter 5 (32 Code of Federal Regulations (CFR) Part 651), and implementing regulations issued by the President's Council on Environmental Quality (CEQ) (40 CFR Parts 1500-1508) as well as guidance provided by the *Base Realignment and Closure Guidelines for Compliance with the National Environmental Policy Act* (Department of the Army 2006).

ES.2 Background/Setting

TYAD is located in the Pocono Mountains approximately 25 miles southeast of Scranton, Pennsylvania, on the northwest edge of the Village of Tobyhanna, Pennsylvania, in Coolbaugh Township, Monroe County. The property, which comprises approximately 1,296 acres, is owned by the U.S. Department of Defense (DoD). TYAD is the largest communications-electronics fabrication/overhaul facility within the DoD and possesses an antenna pattern range, which supports the Army, Navy, Air Force, and Marine Corps radar requirements.

ES.3 Proposed Action

To support the BRAC 2005 recommendations, the Proposed Action includes the following components for relocation of certain radar test ranges from Barstow, California to TYAD: construction of two radar test sites, one with a 68-foot diameter radome; erection of a 340-foot high target tower; construction of a road approximately 1,000 feet long; installation of utilities along the road to power the radar devices; and renovation of a warehouse within TYAD's industrial complex to a test lab space for maintenance and repair of the radar systems along with supporting office space functions. The estimated date of the beginning of construction is September 2008, and the estimated completion date is November 2008. Supporting actions would include land clearing, paving, fencing, and general site improvements. Less than 1 acre of facilities, parking, and roadways would be constructed within the 32-acre project area.

TYAD currently employs approximately 5,800 people, including civilian, military, non-appropriated fund employees, government tenants, and contractors. The Proposed Action would entail an

additional 121 people, who would work at TYAD during normal working hours. The Proposed Action would continue similar work and missions that currently exist at TYAD.

ES.4 Alternatives

Potential locations for the new radar test sites, tower, and test lab were screened for inclusion in this EA. Screening criteria consists of operational constraints, safety constraints, geographic constraints, and existing facility and mission constraints. Based on the selection criteria, two alternatives, the Preferred Alternative and the No Action Alternative, were developed for evaluation in the EA.

Due to the nature of the radar systems, geographic relief, line-of-site requirements, and a location lacking other radar frequencies largely dictated the site selection for the radar test sites and target tower. The Preferred Alternative is comprised of three selected locations. The highest point on Powder Smoke Ridge was selected for the new radar test sites, approximately 1,000 feet northwest of the current Building 54. The target tower would be located about 0.75 mile southwest of the radar test sites. Building 1B, Bay 4, located within TYADs industrial complex, would be renovated for the test lab space. Construction of the radar test sites would require tree removal of approximately 32 acres, the majority of which would occur on Powder Smoke Ridge.

The second alternative is the No Action Alternative and is required to be carried forward by CEQ. Since the Proposed Action is being driven by Congress, the No Action Alternative is carried forward solely to serve as a benchmark against which to evaluate the Proposed Action.

ES.5 Environmental Consequences

Twelve environmental and human resource areas were characterized and evaluated for potential impacts from the Preferred Alternative and the No Action Alternative. Significance criteria were developed for the affected resource categories. For many resource categories, these criteria are necessarily qualitative in nature. No potential impacts were classified as significant. Potential impacts of the Proposed Action identified for each resource area are summarized below.

Land Use. The Preferred Alternative would continue similar work and missions that currently exist on the depot and would be contained within the existing TYAD property, which sets its own land use and zoning designations as needed. No conflicts or nonconformance with current local or state land use or zoning designations would occur. Potential impacts to land use would not be significant.

Aesthetics and Visual Resources. The Preferred Alternative would cause short-term visual impacts on TYAD resulting from ground disturbance associated with construction of the proposed facilities. The presence of the radome and target tower would cause minor long-term visual impacts. The heavily wooded forests surrounding the project area would limit the visibility of the area cleared of vegetation.

On-post viewers would be familiar with the purpose and process of activities related to the radome and target tower, and would be less sensitive to the additional visual impacts of the Preferred Alternative due to the large number of other construction projects occurring on the depot. Off-post viewers located south of TYAD would view the radome from approximately a mile away, which would limit its visual impact off-post. The proposed tower would be the tallest tower at TYAD. However, the terrain of the site selected for the tower would limit visual impacts. Off-post viewers would be able to see the target tower from Interstate 380, as they are also able to see a cell phone tower off-post which was installed several years ago. The FAA will require beacon lights on top of Powder Smoke Ridge and on top of the target tower which could be seen by off-post viewers. Because of existing nighttime light at TYAD, the beacons would cause only a minor visual impact on the night sky.

Air Quality. Short-term air quality impacts from the Preferred Alternative would occur from tree clearing and localized construction activities. Contaminants generated from construction would include particulate matter, vehicle emissions, and increased wind-borne dust (i.e., fugitive dust). Long-term air quality impacts from the Preferred Alternative would occur from operating the radome and the renovated warehouse. Emissions produced from heating of the radome with propane-fired heaters would be minor and the warehouse would be retrofitted from an existing facility and increased air emissions would not be significant. Potential impacts to air quality would not be significant.

Noise. The Preferred Alternative is similar in nature and productivity of existing installation missions. Therefore, no new noise hazards or long-term impacts would be introduced at TYAD after construction is complete. Short-term impacts during construction would include noise from large machinery such as bulldozers, graders, cranes, and pavers. Noise and sound levels would be typical of new construction activities and would be intermittent and temporary. Potential noise impacts from the Preferred Alternative would not be significant.

Geology and Soils. Tree removal on Powder Smoke Ridge, with its topographic relief, would result in the potential for soil erosion during the site preparation and construction phases. Best management practices for erosion control, topsoil management, and revegetation would be required and stated in the construction contract. Erosion control would include leaving downed timber in place to help retain the native understory and the use of hay bales and silt fencing, as appropriate, to prevent the movement of soils into drainage ditches or low-lying areas. Use of best management practices would reduce the potential erosion effects to insignificant levels.

The Preferred Alternative would result in less than 1 acre of impervious surfaces (including the access road), or a site-wide increase of less than 1 percent. This small increase in impervious surfaces would

not reduce precipitation infiltration significantly. Potential impacts to geology and soils from the Preferred Alternative would not be significant.

Water Resources. There would be no measurable reduction in surface water quality or availability. Because the Preferred Alternative would result in a site-wide addition of less than 1 percent of impervious surfaces, it would not impact stormwater runoff or groundwater recharge locally by reducing the infiltration of precipitation.

Surface water quality impacts from erosion during construction and tree clearing would be mitigated by using standard construction erosion control methods and by leaving felled trees in place. The Preferred Alternative would not involve activities that could impact the quality of groundwater in the aquifers beneath the installation or in the surrounding area.

The Preferred Alternative would require tree felling and erection of the target tower within the 100-year floodplain. No significant impacts to the floodplain or the tower due to its location in a floodplain are expected. Potential impacts to water resources from the Preferred Alternative would not be significant.

Biological Resources. The Preferred Alternative would entail clearing approximately 32 acres of forest, or about 5 percent of TYADs currently undeveloped land but would not have an impact on regional biodiversity or ecosystem function. However, clearing trees would have long-term impacts on local habitats and would result in a change in species composition in and near cleared areas, although unwanted vegetation regrowth would be controlled by aggressive vegetation management, including application of TYADs Integrated Pest Management Plan for the control of weed species.

The Preferred Alternative is not likely to cause adverse impacts to any federally-listed threatened or endangered species, for no such species are known to occur on TYAD. The Army consulted with the U.S. Fish and Wildlife Service, the Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Game Commission, and the Pennsylvania Fish and Boat Commission, and these consultation letters can be found in Appendix A. The Pennsylvania Game Commission responded that although there are no federal listed species, the tree cutting will be accomplished so not to interfere with nearby osprey nesting activity.

The nearest construction activity to the wetlands on Powder Smoke Ridge would be the proposed 1,000-foot road, which would be at least 50 feet from the nearest wetland and would therefore not impact this wetland; pylons to stabilize the target tower would not be constructed in wetlands. However, clearing the trees between the proposed target tower and the test pads would result in short and long-term impacts to wetlands on TYAD, notably Oakes Swamp. Short-term impacts in the vicinity of Oakes Swamp would result from disturbance during tree felling, although these impacts

would be minimized by banning vehicle operation in wetlands and by removing hardwood vegetation in wetlands by hand. Long-term impacts would result from changes in minimal water and soil temperature due to increased exposure to sunlight. There would be no construction, fill, or dredging in wetlands, and because Oakes Swamp is substantially below the line of sight required between the radar test pads on Powder Smoke Ridge and the target tower, little or no vegetation would need to be removed from the Oakes Swamp area and no snags would be removed. A need to obtain Clean Water Act Section 404 permits is not anticipated. Potential impacts to biological resources from the Preferred Alternative would not be significant.

Cultural Resources. Previous cultural resource investigations of TYAD have determined that the depot has little or no potential for containing intact, significant archaeological sites. Additionally, there are no known National Register of Historic Places-eligible or listed architectural resources in the area of the Proposed Action.

Section 106 consultation and coordination has been conducted with the State Historic Preservation Officer via the Pennsylvania Historical and Museum Commission, and the consultation letters are included in Appendix A. Potential impacts to cultural resources from the Preferred Alternative would not be significant.

Socioeconomics. Potential socioeconomic impacts from the Preferred Alternative would include beneficial short-term impacts during construction and minimal impacts upon completion. Based on the Economic Impact Forecast System (EIFS) model, the Proposed Action would generate about 169 direct and 128 indirect jobs in the economic region of influence during construction and operations activities. The EIFS model input and output for the proposed BRAC actions at TYAD may be found in Appendix B. Once the proposed facilities are operational, approximately 121 new personnel would be expected to relocate to the region of influence. This represents an approximate 0.015 percent increase in the population of the region of influence, and would therefore have a negligible impact on the demographics of the region.

Additionally, there would be no environmental justice impacts at TYAD or the surrounding area, as impacts from the Proposed Action identified in this EA would not be localized or placed primarily on minority and/or low-income populations. There would be no environmental health and safety risks that might disproportionately affect children, because children are restricted from the areas proposed for construction and operation of the new facilities.

Transportation. No traffic or parking problems are anticipated from the approximately 12 people that would be stationed at the proposed radome and approximately 50 at the renovated warehouse. The remainder of the 121 additional people defined in the Proposed Action would be spread out in

different locations within TYAD. Potential impacts to transportation from the Preferred Alternative would not be significant.

Utilities. Under the Preferred Alternative, use of existing utility systems by the additional 121 personnel would not be significant compared to the current use of about 5,800 people. The Preferred Alternative for the radar test sites and target tower would not require a potable water supply, wastewater system, or solid waste disposal. The 12 people that would be stationed at this area on Powder Smoke Ridge would use the potable water supply, wastewater system, and dispose of solid waste at the current radar facility, Building 54. Additional use of utilities at Building 54 would not be significant. The Preferred Alternative would require four underground conduits in the shoulder of the roadway to extend power and communications to the radar sites and four underground conduits to extend power and communications to the target tower site. Both the access road to the radar test sites and the target tower would require riprap and an 18-inch drainage pipe for storm water drainage controls. The warehouse retrofit would use an existing building and additional utility requirements would not be significant. Potential impacts to utilities from the Preferred Alternative would not be significant.

Hazardous and Toxic Substances. No hazardous or toxic substances would be associated with the radar test sites or target tower site and no hazardous waste would be generated. The potential impacts of any hazardous material remediation work (small quantities of asbestos pipe insulation) done during the warehouse retrofit would be minor.

The selected location for the new radar test sites occurs within an area that was used as an artillery range during World Wars I and II, and thus, there is a potential that Munitions and Explosives of Concern (MEC) are present at the site. The location occurs within a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Operable Unit known as Operable Unit #4, or Area of Concern #55. Under a Federal Facility Agreement between the U.S. Environmental Protection Agency Region III and the Department of the Army, TYAD has conducted a CERCLA removal action at the site, and a Record of Decision for this operable unit was signed in September 2000. The selected remedy for the Operable Unit #4 was institutional controls and consisted of physical controls; security patrols/monitoring; MEC support; public/employee education; proprietary controls; and periodic reviews.

It is currently anticipated that approximately 8 acres of land will require MEC removal to 2 feet with the remaining 24 acres cleared of surface MEC/debris for vegetation removal. MEC support would be obtained from Explosive Ordnance Disposal-trained personnel. The Army has prepared an Explosive Safety Submission Report to plan for this removal. MEC removal would result in a beneficial impact by improving the environmental condition of this area and making it available for

TYADs use. Potential impacts to hazardous and toxic substances from the Preferred Alternative would not be significant.

Cumulative Impacts. Cumulative impacts were also addressed by considering the impacts of the Proposed Action in combination with impacts from other past, present, and reasonably foreseeable projects. Present and reasonably foreseeable actions at TYAD are described in the TYAD Master Plan EA developed for infrastructure improvements planned at TYAD for the timeframe of about January 2006 through January 2016. In addition, TYAD will be receiving depot maintenance workload from Naval Weapons Station Seal Beach, CA, also under BRAC 2005 recommendations. No development or projects immediately off the depot were identified. The scope of the cumulative effect analysis involved evaluating impacts to the 12 environmental and human resource areas cumulatively by geographic and temporal extent in which the effects would be expected to occur. Cumulative impacts would not be significant.

ES.6 Mitigation Responsibility

No mitigation measures are required for the Proposed Action discussed in this EA because resulting impacts are not significant.

ES.7 Findings and Conclusions

As analyzed and discussed in this EA, direct, indirect, and cumulative impacts of the Proposed Action and the No Action Alternative have been considered, and no significant impacts have been identified. Therefore, issuance of a Finding of No Significant Impact is warranted, and preparation of an environmental impact statement is not required. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law.

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LIST OF ACRONYMS

ARPA	Archaeological Resources Protection Act
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DoD	U.S. Department of Defense
EA	environmental assessment
EIFS	Economic Impact Forecast System
EO	Executive Order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FIRM	Flood Insurance Rate Map
FNSI	Finding of No Significant Impact
gpd	gallons per day
HVAC	heating, ventilation, and air conditioning
ISDN	Integrated Services Digital Network
kV	kilovolt
MEC	Munitions and Explosives of Concern
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PADEP	Pennsylvania Department of Environmental Protection
RCRA	Resource Conservation and Recovery Act
REC	Record of Environmental Consideration
ROI	region of influence
RTV	rational threshold value
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
TSCA	Toxic Substance Control Act
TYAD	Tobyhanna Army Depot
USACE	U.S. Army Corps of Engineers
VOC	volatile organic compound

1.0 PURPOSE, NEED AND SCOPE

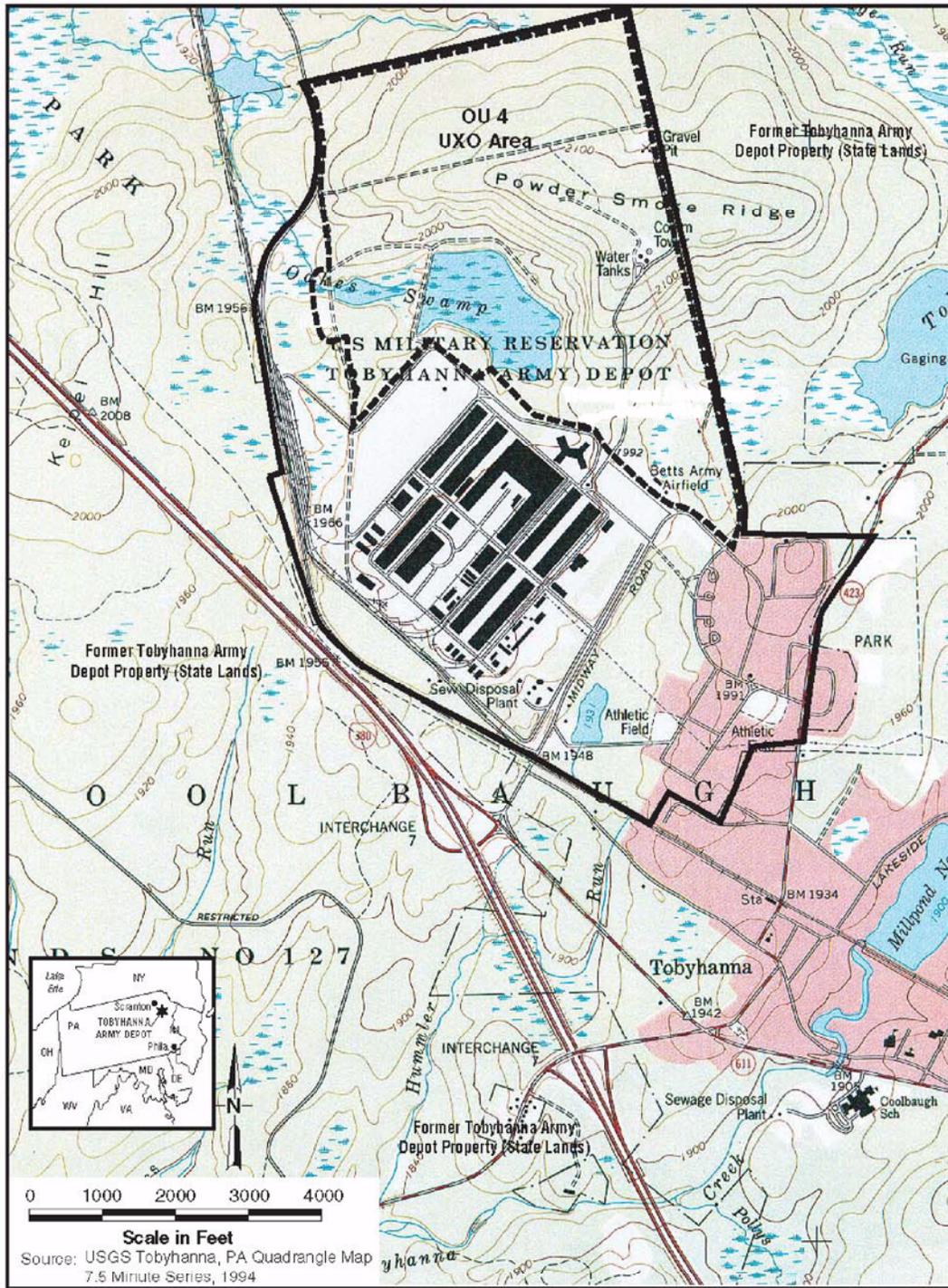
On September 8, 2005, the Defense Base Closure and Realignment Commission (“BRAC Commission”) recommended that certain realignment actions occur at Tobyhanna Army Depot (TYAD) in Tobyhanna, Pennsylvania. These recommendations were approved by the President on September 23, 2005, and forwarded to Congress. The Congress did not alter any of the BRAC Commission’s recommendations, and on November 9, 2005, the recommendations became law. The BRAC Commission recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

TYAD, a 1,296-acre installation located in the Pocono Mountains approximately 25 miles southeast of Scranton, Pennsylvania (Figure 1-1), is the largest communications-electronics fabrication/overhaul facility in the U.S. Department of Defense (DoD). The depot possesses an antenna pattern range, which supports the Army, Navy, Air Force, and Marine Corps radar requirements. The BRAC Commission has recommended the following:

- Consolidate depot maintenance at the Marine Corps Logistical Center in Barstow, California, and transfer the following workload to TYAD: electronic components (non-airborne), electro-optics/night vision/forward-looking infrared, generators, ground support equipment, radar, and radio.
- Realign the Naval Weapons Station Seal Beach, California by relocating depot maintenance of electronic components (non-airborne), fire control systems and components, radar, and radio to TYAD.

The first recommendation is the subject of this environmental assessment (EA). To enable implementation of these recommendations, the Army proposes to provide necessary facilities to support the expansion of radar testing at TYAD. This EA analyzes and documents environmental effects associated with the Army’s Proposed Action at TYAD. Details of the Proposed Action are described in Section 2.0.

The second recommendation was addressed in a separate National Environmental Policy Act (NEPA) document, a Record of Environmental Consideration (REC), dated November 21, 2006, because TYAD would not be significantly altered by the completion of this project (TYAD 2006b). A REC was prepared because this action was categorically excluded under the provisions of 32 Code of Federal Regulations (CFR) 651, Appendix B, Section II(b)(12) and (c)(2). Specifically, Section II (b)(12) addresses reductions and realignments of civilian and/or military personnel that fall below the thresholds for reportable actions and do not involve related activities such as construction, renovation, or demolition activities. This includes reorganizations and reassignments with no changes in force structure, unit redesignations, and routine administrative reorganizations and consolidations.



07P-0831 6/26/07

Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 1-1
 Tobyhanna Army Depot Location Map



Section II (c)(2) addresses demolition of non-historic buildings, structures, or other improvements and disposal of debris there from, or removal of a part thereof for disposal, in accordance with applicable regulations, including those regulations applying to removal of asbestos, polychlorinated biphenyls, lead-based paint, and other special hazard items.

1.1 Purpose and Need

The purpose of the Proposed Action is to implement the BRAC Commission's recommendations pertaining to TYAD.

The primary need for the Proposed Action is to improve the ability of the Nation to respond rapidly to challenges of the 21st century. The Army's mission is to defend the United States and its territories, support national policies and objectives, and defeat nations responsible for aggression that endanger the peace and security of the United States. To carry out these tasks, the Army must adapt to changing world conditions and must improve its capabilities to respond to a variety of circumstances across the full spectrum of military operations. The following discusses the major initiatives that contribute to the Army's need for the Proposed Action at TYAD.

In previous rounds of BRAC, the explicit goal was to save money and downsize the military to reap a "peace dividend." In the 2005 BRAC round, DoD sought to reorganize its installation infrastructure to most efficiently support its forces, increase operational readiness, and facilitate new ways of doing business. Thus, BRAC represents more than cost savings. It supports advancing the goals of transformation, improving military capabilities, and enhancing military value. The Army needs to carry out the BRAC recommendations at TYAD to achieve the objectives for which Congress established the BRAC process.

Additionally, on October 1, 2004, the Secretary of the Army and the Chief of Staff issued *The Army Strategy for the Environment* (Department of the Army 2004). The strategy focuses on the interrelationships of mission, environment, and community. A sustainable installation simultaneously meets current and future mission requirements, safeguards human health, improves quality of life, and enhances the natural environment. A sustained natural environment is necessary to allow the Army to train and maintain military readiness.

1.2 Scope

This EA was developed in accordance with NEPA (42 U.S.C. § 4321 et seq.); implementing regulations issued by the President's Council on Environmental Quality (CEQ), 40 CFR Parts 1500-1508; and Army Regulation 200-2, *Environmental Effects of Army Actions*, 32 CFR Part 651. Its purpose is to inform decision makers and the public of the likely environmental consequences of the Proposed Action and alternatives.

This EA identifies, documents, and evaluates environmental effects of the proposed realignment at TYAD. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians analyzed the Proposed Action and alternatives in light of existing conditions and identified relevant beneficial and adverse effects associated with the actions. The Proposed Action is described in Section 2.0 and the alternatives are described in Section 3.0.

The Defense Base Realignment and Closure Act of 1990 specifies that NEPA does not apply to actions of the President, the BRAC Commission, or the DoD, except “(i) during the process of property disposal, and (ii) during the process of relocating functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected but before the functions are relocated (Sec. 2905(c)(2)(A), Public Law 101-510, as amended).” The law further specifies that in applying the provisions of NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider “(i) the need for closing or realigning the military installation which has been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected (Sec. 2905(c)(2)(B)).” The Commission's deliberation and decision, as well as the need for closing or realigning a military installation, are exempt from NEPA. Accordingly, this EA does not address the need for realignment.

The decision to be made is how the Army will implement the BRAC recommendations at TYAD, and, as appropriate, carry out mitigation measures that would reduce effects on resources. The decision on how to implement realignment will be based on strategic, operational, environmental, and other considerations, including the results of this analysis.

1.3 Public Involvement

The Army invites public participation in the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential

interest in the Proposed Action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process.

Public participation opportunities with respect to this EA and decision-making on the Proposed Action are guided by 32 CFR Part 651. Upon completion, the Notice of Availability will be published in a local newspaper, *The Pocono Record*. The EA will be made available to the public for 30 days, along with a draft Finding of No Significant Impact (FNSI) at the Pocono Mountain Public Library, 5540 Memorial Boulevard (Route 611), Coolbaugh Township Municipal Center, in Tobyhanna, and on the BRAC website at http://www.hqda.army.mil/acsim/brac/env_ea_review.htm. At the end of the 30-day public review period, the Army will consider all comments submitted by individuals, agencies, or organizations on the Proposed Action, the EA, and draft FNSI. As appropriate, the Army may then execute the FNSI and proceed with implementation of the Proposed Action. If it is determined prior to issuance of a final FNSI that implementation of the Proposed Action would result in significant impacts, the Army will publish in the *Federal Register* a notice of intent to prepare an environmental impact statement, commit to mitigation actions sufficient to reduce impacts below significance levels, or not take the action.

Throughout this process, the public may obtain information on the status and progress of the Proposed Action and the EA through the TYAD Public Affairs Office by calling Mr. Kevin Toolan at (570) 895-6552.

1.4 Regulatory Framework

A decision on whether to proceed with the Proposed Action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, TYAD is guided by relevant statutes (and their implementing regulations) and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning. These include the Clean Air Act (CAA), Clean Water Act (CWA), Noise Control Act, Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Archaeological Resources Protection Act (ARPA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and Toxic Substance Control Act (TSCA). EOs bearing on the Proposed Action include EO 11988 (*Floodplain Management*), EO 11990 (*Protection of Wetlands*), EO 12088 (*Federal Compliance with Pollution Control Standards*), EO 12580 (*Superfund Implementation*), EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), EO 13101 (*Greening the Government Through Waste Prevention, Recycling, and*

Federal Acquisition), EO 13123 (*Greening the Government Through Efficient Energy Management*), EO 13148 (*Greening the Government Through Leadership in Environmental Management*), EO 13175 (*Consultation and Coordination with Indian Tribal Governments*), and EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*). The full text of the laws, regulations, and EOs is available on the Defense Environmental Network & Information Exchange web site at <https://www.denix.osd.mil>.

2.0 PROPOSED ACTION

To support the BRAC 2005 recommendations, the Proposed Action includes the following components for relocation of certain radar test ranges from Barstow, California to TYAD:

- Construction of two radar test sites, one with a 68-foot diameter radome
- Erection of a 340-foot high target tower
- Construction of a road approximately 1,000 feet long
- Installation of utilities along the road to power the radar devices
- Renovation of a warehouse within TYADs industrial complex to a test lab space for maintenance and repair of the radar systems along with supporting office space functions

The Proposed Action would provide testing and maintenance areas for TYADs radar testing mission. The estimated date of the beginning of construction is September 2008, and the estimated completion date is November 2008. Proposed Action components are discussed in more detail below.

Two radar test sites would be constructed at TYAD. One of the radar test sites would contain a 68-foot diameter radome. The term “radome” implies a combination of a radar and a dome and is a structural, weatherproof enclosure used to protect an antenna. The material used in building radomes distinguishes a radome structure from other structures, in that it allows a relatively unattenuated electromagnetic signal between the antenna inside the radome and outside equipment. Radomes are used to protect the surfaces of the antenna from the effects of environmental exposure and/or conceal antenna electronic equipment from public view.

The test site containing the radome would be more complex and would require two test pads: (1) a domed pad to accommodate three 21-foot trailers in a “Y” configuration indoors, and (2) an outdoor pad, 45 feet in diameter, with the same geometry as the domed pad to accommodate outside operation of the radar. A 40-foot wide ring of reinforced concrete pavement would surround the concrete radar pad providing for truck access to the radome and circulation around the radome. The concrete pavement would be extended to surround the outdoor concrete pad. The radome would be heated with propane-fired heaters and would not be air conditioned. The radome would require a Federal Aviation Administration (FAA) beacon. The other radar test site would require only a concrete pad, 20 feet in diameter. Both radar test sites would be equipped with electrical power and communications.

A target tower would be required for radar tests using the radar test site with the radome. The target tower would be 340-feet high and cover about 900 square feet of ground surface. The

target tower would be constructed with steel material, equipped with electrical power, and would require an FAA beacon.

Access to the radar test sites would be provided by a 1,000-foot long, 12-foot wide access road. Supporting actions would include land clearing, paving, fencing, general site improvements, and extension of electrical power and communications to the sites.

Force protection (physical security) measures would be incorporated into the design including maximum standoff distance from roads, parking areas, and vehicle unloading areas. Berms, heavy landscaping, and bollards will be used to prevent access when standoff distances cannot be maintained. Less than 1 acre of facilities, parking, and roadways would be constructed within the 32-acre area. The Proposed Action also includes renovation of a warehouse within TYADs industrial complex to a test lab space for maintenance and repair of the radar systems along with supporting office space functions.

TYAD currently employs approximately 5,800 people. This figure includes civilian, military, non-appropriated fund employees, government tenants, and contractors. The Proposed Action would employ about 121 people during TYADs normal working hours. Most of these people would be located at the test lab space and would work during TYADs normal working hours. The operation at the radar test pads would be on a regular basis, by very few employees that would be coming from the test lab space. The operation at the target tower would be on a very limited basis and once again by very few employees that would be coming from the test lab space. The radar system and operations would be reviewed by the TYAD Safety Division to preclude any health hazards to depot employees. The Proposed Action would continue similar work and missions that currently exist at TYAD.

3.0 ALTERNATIVES

This section discusses all alternatives considered feasible, including all site locations, facilities, and the No Action Alternative. To support and sustain its current and future mission, TYAD has programmed the construction of new facilities, including structures, roads, and parking lots.

3.1 Proposed Alternatives Screened for Evaluation

Potential locations for the new radar test sites, tower, and test lab were screened for inclusion in this EA. Screening criteria consists of operational constraints, safety constraints, geographic constraints, and existing facility and mission constraints. Reuse of existing facilities was considered for the test lab space, but was not considered for the radar test sites and target tower, because there are no existing facilities available that could adequately house or support the Proposed Action. Leasing of off-site facilities was also not considered, because leasing did not fully meet the purpose and need for the Proposed Action. One location on TYAD was considered for the radar test sites; four locations were considered for the target tower; and one location was considered for the test lab space. The following describes the constraints considered in the evaluation process.

Safety Constraints – Safe access to the target tower during the winter; fall hazards

Geographic Constraints – Sufficient topographic relief for the radar test pad with the radome; proximity to existing utilities to avoid construction with heavy equipment through the numerous jurisdictional wetlands on TYAD

Existing Facility and Mission Constraints – Potential interference with over 20 other existing radar test ranges and numerous radar frequencies on TYAD

Operational Constraints – Specific radar system requirement of a far-field test that takes up almost the entire length of the depot; the radar test site with the radome requires clear target acquisition of the target tower (line-of-sight requirement)

Table 3-1 summarizes the selection criteria as applied to each location considered. Based on the selection criteria, two alternatives, the Preferred Alternative and the No Action Alternative, were developed for evaluation in the EA. Details of the two alternatives are described below. The Preferred Alternative is carried forward and evaluated in this EA, and the No Action Alternative is required to be carried forward by CEQ. Since the Proposed Action is being driven by Congress, the No Action Alternative is carried forward solely to serve as a benchmark against which to evaluate the Proposed Action.

Table 3-1 Selection Criteria for Each Site.

Facility	Location Description	Operational Constraints	Safety Constraints	Geographic Constraints	Existing Facility and Mission Constraints	Carried Forward to EA or Not Carried Forward
Radar Test Sites	Powder Smoke Ridge – adjacent to the 20-acre area previously cleared for MEC; about 1,000 feet from Building 54	None	Approximately 8 acres require MEC removal to 2 feet with the remaining 24 acres cleared of surface MEC/debris for vegetation removal.	None	None	Considered in EA
Target Tower	Landfill Site	Site restrictions for guy wire anchors	Fall hazard	Closed landfill present	None	Not carried forward
	North of Landfill Site	None	None	None	None	Considered in EA
	Munson Road Track	None	Difficult winter access; minor fall hazard	Would require use of heavy equipment in wetlands for construction/ installation of utilities and road construction	None	Not carried forward
	Perimeter Road Site (Northwest corner of TYAD)	None	Difficult winter access; located in an area with MEC, would require vegetation and MEC removal	Would require use of heavy equipment in wetlands for construction/ installation of utilities and road construction	Physical obstruction to other site testing	Not carried forward
Test Lab Space	Retrofit of Building 1B, Bay 4	None	None	None	None	Considered in EA

EA environmental assessment
 MEC Munitions and Explosives of Concern
 TYAD Tobyhanna Army Depot

3.2 Preferred Alternative

The site selection for the radar test sites and target tower was dictated by the nature of the radar systems, geographic relief, line-of-site requirements, and a location lacking other radar frequencies. The radar test sites and target tower are located near the center of the depot on the north side of Perimeter Road, near the current radar test facility, and encompass

approximately 32 acres. The Preferred Alternative is comprised of three selected locations. The highest point on Power Smoke Ridge was selected for the new radar test sites, approximately 1,000 feet northwest of the current Building 54. The location selected for the target tower, indicated as being north of the Landfill Site on Table 3-1, would be located about 0.75 mile southwest of the radar test sites. This location is north of a former landfill and retains many of the advantages of the Landfill Site on Table 3-1 without being located in or on the actual landfill. Building 1B, Bay 4 would be renovated for the test lab space. Figure 3-1 presents a general site layout. Building 1B is located within TYADs industrial complex, and is shown on Figure 4-3 for reference.

The selected location for the radar test sites occurs within an area that was used as an artillery range during World Wars I and II, and thus, there is a potential that Munitions and Explosives of Concern (MEC) are present at the site. It is currently anticipated that approximately 8 acres will require MEC removal to 2 feet with the remaining 24 acres cleared of surface MEC/debris for vegetation removal. TYAD has prepared a Conventional Explosives Safety Submission to accomplish this MEC removal.

The MEC removal would be conducted in accordance with the Record of Decision (TYAD 2000) executed by TYAD as part of a CERCLA remedial action for this site, as described more fully in Section 4.13.1.4 of this EA. In addition, an employee education program would be implemented to ensure that personnel on Powder Smoke Ridge would know to stay within the MEC-cleared area of the radar test sites.

Building 1B, Bay 4 was selected by TYAD to be used for conversion to the test lab space based on its utilities location, accessibility, and general layout. All renovation would occur in the interior of the building with the exception of a needed ramp to enable delivery of the weapons systems by trailers and other modes of transportation.

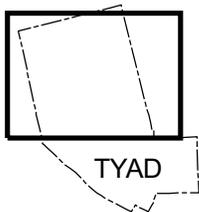
3.2 No Action Alternative

The No Action Alternative is included as required by the CEQ regulations to identify the existing baseline conditions against which potential impacts are evaluated. The No Action Alternative must be described because it is the baseline condition or the current status of the environment if the Proposed Action is not implemented. For realignment actions directed by the BRAC Commission, it is noted that the No Action Alternative is not feasible.

Under the No Action Alternative, the proposed facilities would not be constructed to accommodate the BRAC actions as described in Section 2.0. Under the No Action Alternative, the transfer of the specified workload from the Marine Corps Logistical Center in Barstow, California, to TYAD would not be implemented.



Locator Map



Prepared For:
 U.S. Army Corps of Engineers, Mobile District

Figure 3-1

Proposed Site Layout for the Radar Test Sites and Target Tower, Tobyhanna Army Depot



4.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 Introduction

This chapter describes the existing environmental and human resources that could potentially be affected by the Proposed Action and the No Action Alternative. The environment described in this chapter is the baseline for the consequences that are presented for each resource and each alternative. The region of influence (ROI), or study area for each resource category is TYAD and its surroundings, unless stated otherwise in the individual resource category discussion. Most of the baseline information was taken from existing TYAD documentation, including TYADs Master Plan EA (January 2006a).

This chapter also describes potential impacts for each environmental and human resource. An impact is defined as a consequence from modification to the existing environment brought about by the implementation of a proposed action or alternative. Impacts can be beneficial or adverse, can be a primary result of an action (direct) or a secondary result (indirect), and can be permanent or long lasting (long term) or temporary and of short duration (short term). Impacts can vary in degree from a slightly noticeable change to a total change in the environment.

For this EA, short-term impacts are defined as those impacts resulting from construction, renovation, or demolition activities (e.g., those that are of temporary duration), whereas long-term impacts are those resulting from the presence of new facilities and operation of the proposed new facilities once they are constructed and commissioned for operation.

Under NEPA, a review of significant irreversible and irretrievable effects that result from development of the Proposed Action is required (40 CFR 1502.16). Irreversible commitments of resources are those resulting from impacts to resources so they cannot be completely restored to their original condition. Irretrievable commitments of resources are those that occur when a resource is removed or consumed and will therefore never be available to future generations for their use. For resources or subjects where irreversible or irretrievable effects would result, such effects are discussed with short- and long-term impacts.

Significance criteria are developed for the affected resource categories, and for many resource categories, are necessarily qualitative in nature. Quantitative criteria can be established when there are specific numerical limits established by regulation or industry standard. These criteria are based on existing regulatory standards, scientific and environmental documentation, and/or professional judgment.

Impacts do not necessarily connote negative changes, and any detectable change is not, in and of itself, considered to be negative. In the following discussions, to highlight adverse impacts for the decision maker, the impacts are considered adverse unless identified as beneficial.

The affected environment and baseline conditions are described for each resource in general terms for the Proposed Action. The affected environment description for each resource is followed by the potential impacts to the resource from the Preferred Alternative and from the No Action Alternative.

4.2 Land Use

4.2.1 AFFECTED ENVIRONMENT

This section describes existing land use conditions on and surrounding TYAD. It considers natural land uses and land uses that reflect human modification. Natural land use classifications include wildlife areas, forests, and other open or undeveloped areas. Human land uses include residential, commercial, industrial, utilities, agricultural, recreational, and other developed uses. Management plans, policies, ordinances, and regulations determine the types of uses that are allowable, or protect specially designated or environmentally sensitive uses. The following sections discuss the regional geographic setting and location, installation land/airspace use, surrounding land/airspace use, and current and future development. The ROI for land use is the land within and adjacent to the Proposed Action project area.

4.2.1.1 Regional Geographic Setting and Location

TYAD is a 1,296-acre installation located in the Pocono Mountains approximately 25 miles southeast of Scranton, Pennsylvania, on the northwest edge of the Village of Tobyhanna, Pennsylvania, in Coolbaugh Township, Monroe County.

4.2.1.2 Installation Land/Airspace Use

More than one-half the total land area of TYAD is undeveloped, consisting of rolling, wooded terrain and wetlands. The remainder of the depot is devoted to uses such as housing, recreation areas, training facilities, community service facilities, storage areas, and the industrial complex. The installation has approximately 226 acres of impervious land (TYAD 2006a). The industrial complex is the primary focus of the depot as a result of the installation's mission, which is the repair and maintenance of communication-related equipment.

Control over and access to TYAD via the airspace is managed by TYADs Security Division in coordination with the local FAA. There are no aircraft runways on the depot. All military aircraft use local civilian airports under an agreement with the local municipalities. In addition to the local airports, there is a helipad on the installation for helicopter air traffic.

4.2.1.3 Surrounding Land/Airspace Use

The area immediately surrounding TYAD is undeveloped, sparsely populated, and heavily wooded. A combination of two state parks and one state game land tract surround the depot on the north, east, and west. The only development in the area is the Village of Tobyhanna, about 1.5 miles to the south of TYAD, and a housing development, about 1.75 miles northeast of the depot.

To support the mission, recurring tests of commercial airlines are used to test radar systems for air traffic up to 250 miles away and an historical average of 36 aircraft “flyovers” is performed annually, primarily to test radar systems.

Commercial air service to TYAD is provided via Wilkes-Barre/Scranton International Airport, Allentown-Bethlehem-Easton International Airport, and Philadelphia Airport at distances of 24 miles, 50 miles, and 103 miles, respectively. Small aircraft air service can be obtained 8 miles away at Pocono Mountain Municipal Airport. Military air service is provided via the Dover and McGuire Air Force Bases, 184 miles and 114 miles away, respectively. The helipad at TYAD can be used for faster service to any of the above air facilities.

4.2.1.4 Current and Future Development in the Region of Influence

The only current and future development in the ROI that was identified is expansion of TYADs industrial and administrative areas. TYAD completed an EA in January 2006 that examines the impacts of the expansion that will include construction of new facilities and improvement of existing facilities in 15 zones throughout the depot. Implementation is planned for the approximate 10 years between January 2006 and 2016. The total acreage for all new construction and improvements is about 100 acres, with a long-term impact on approximately 37 acres of undeveloped forested terrain that will be developed (TYAD 2006a).

4.2.2 CONSEQUENCES

Considerations for impacts to land use include the land on and adjacent to the Proposed Action project area, the physical features that influence current or proposed uses, pertinent land use plans and regulations, and land availability. Conformity with existing land use is of utmost importance.

Potential impacts to land use are considered significant if the Proposed Action would:

- Conflict with applicable ordinances and/or permit requirements;
- Cause nonconformance with the current general plans and land use plans, or preclude adjacent or nearby properties from being used for existing activities; or
- Conflict with established uses of an area requiring mitigation.

Potential impacts to airspace use are considered significant if the Proposed Action would:

- Cause changes in airspace management that elevate frequency of use of airspace not currently accommodated by existing published routes and air control systems;
- Modify local routes or air control protocols; or
- Require the creation of new published routes or air control protocols through FAA coordination.

4.2.2.1 Preferred Alternative

Potential impacts to land use from the Preferred Alternative would not be significant. The Preferred Alternative would be contained within the existing TYAD property, which sets its own land use and zoning designations as needed, and would not present conflicts or nonconformance with current local or state land use or zoning designations. The Preferred Alternative would continue similar work and missions that currently exist on the depot. Existing land uses external to the installation would not be affected by land-use decisions related to the Preferred Alternative; thus, there would be no discernible impact to these land uses.

Construction and operation of the new radar test sites on Powder Smoke Ridge would require 32 acres of MEC removal as described in Section 4.13.2.1. The MEC removal and requirements of the radar tests would also require tree clearing of this 32-acre area. Overall, the MEC removal would result in a positive land use impact by improving the environmental condition of this area and making it available for TYADs use. Impacts of tree clearing are addressed Sections 4.3 and 4.8, Aesthetics and Visual Resources and Biological Resources, respectively. Less than 1 acre of facilities, parking, and roadways would be constructed within the 32-acre area.

Renovation of Building 1B, Bay 4 entails retrofitting a warehouse structure into test lab space. The building is located within TYADs industrial complex; therefore, the renovation would not result in any land use changes.

Under the Preferred Alternative, there would be a relatively long-term commitment of the land resources required for construction and operation of new facilities; this commitment of land

resources is irreversible because the land likely cannot be completely restored to its original condition and other uses would be precluded during the time the land is being used for the proposed use, but it does not constitute an irretrievable commitment of resources because the use is not consumptive and the land would remain available to future generations.

TYAD would coordinate airspace management in relation to the potential interference caused by the target tower with the Army Air Space Manager responsible for this region as well as the FAA. An application for erection of the tower would be filed with both entities, and TYAD would comply with their respective requirements.

4.2.2.2 No Action Alternative

Under the No Action Alternative, there would be no changes in land use or MEC removal at TYAD.

4.3 Aesthetics and Visual Resources

4.3.1 AFFECTED ENVIRONMENT

This section describes the aesthetic and visual resource conditions at TYAD. Visual resources include natural and man-made physical features that provide the landscape its character and value as an environmental resource. Landscape features that form a viewer's overall impression about an area include landform, vegetation, water, color, adjacent scenery, scarcity, and constructed modifications to the natural setting. The ROI for aesthetics includes the areas visible from the Proposed Action construction locations and areas from which the Proposed Action construction locations are visible.

TYAD is located in the picturesque Pocono Mountains resort area in the midst of wooded hills and valleys. Most of the areas adjoining TYAD are zoned woodland conservation. The remainder is zoned residential. The installation itself is zoned industrial. The Nature Conservancy has identified the Pocono Mountain region as "one of the top 40 last great places on Earth".

The industrial zone allows heavy commercial and general industrial uses with restrictions on odors, toxic gases, glare and heat, liquid wastes or sewage, vibration, noise, smoke, soot or dust, and electric or electronic interference. Generally, none of the restricted items may cross the zoned lot line. While the depot is a high-tech industrial complex, it continually strives to maintain the region's visual and aesthetic values.

Several towers currently exist on TYAD. Two towers are located on Powder Smoke Ridge, both towers are approximately 60 to 100 feet high and both towers can be seen from the road on the south side of TYAD. Existing towers have beacon lights on top and TYAD is well-lit at night.

4.3.2 CONSEQUENCES

Potential impacts to aesthetic and visual resources are considered significant if the Proposed Action would substantially degrade the natural or constructed physical features at TYAD that provide the property its character and value as an environmental resource. The magnitude of any impact would be primarily determined by the number of viewers affected, viewer sensitivity to changes, distance of viewing, and compatibility with existing land use.

4.3.2.1 Preferred Alternative

Potential impacts to aesthetics and visual resources from the Preferred Alternative would not be significant. The Preferred Alternative would cause minor short-term visual impacts at TYAD resulting from ground disturbance and the presence of workers, vehicles, and equipment and the generation of dust and vehicle exhaust associated with construction of the proposed facilities. However, once construction is complete, the reclamation of disturbed areas would remove these visual impacts.

The Preferred Alternative would cause minor long-term visual impacts on TYAD due to the presence of the 68-foot-diameter radome and 340-foot-high target tower. The radome would be located on the highest point on Powder Smoke Ridge and the target tower would be about 0.75 mile southwest at a lower elevation. Vegetation would be removed from about 32 acres, and less than 1 acre of facilities, parking, and roadways would be constructed within the 32-acre project area. The heavily wooded forests surrounding the project area would limit the visibility of the area cleared of vegetation.

On-post viewers would be familiar with the purpose and process of activities related to the radome and target tower, and would be less sensitive to the additional visual impacts of the Preferred Alternative due to the large number of other construction projects occurring on the depot (see Section 4.14.1, Table 4-4, for a list of these other projects). The radome would be approximately 68 feet high and could be viewed from approximately a mile away by off-post viewers located south of TYAD. This distance would limit the visual impact of the radome off-post. The radome would not be visible to a viewer at the fence line on state game lands to the north due to topography. The FAA will require a beacon light on top of Powder Smoke Ridge which could be seen by off-post viewers. Because of existing nighttime light at TYAD, the beacon would cause only a minor visual impact on the night sky.

The proposed tower would be the tallest tower at TYAD. However, the terrain of the site would limit the visual impacts of the tower. Figure 4-1 shows the heights of various structures currently at TYAD relative to the height of the proposed tower. Figure 4-2 shows the profile of these structures at TYAD relative to the terrain. Although the new tower would be more than three times taller than existing towers, when taking in account the terrain, its profile would be similar to the existing towers. Off-post viewers would be able to see the tower from Interstate 380 (I-380), as they are also able to see a cell phone tower off-post which was installed several years ago. Because existing towers are visible off-post, viewers may be less sensitive to the visual impact of the new tower. According to the Federal Communications Commission's Antenna Structure Registration, there are currently 79 towers that are 300 feet above ground level (AGL) or higher within a 50-mile radius of TYAD and 377 towers between 60 feet and 300 feet AGL in that same area (FCC 2008). Exterior lighting at the target tower would be provided by two light poles. Because of the height of the tower, FAA will require a beacon light on top which could be seen by off-post viewers. Because of existing nighttime light at TYAD, the beacon would cause only a minor visual impact on the night sky.

No exterior aesthetic impacts would occur from the warehouse retrofit, however, the aesthetics of the interior of the warehouse would improve with the renovation of the space.

4.3.2.2 No Action Alternative

Under the No Action Alternative, there would be no effects on the viewshed or on the aesthetic values of the region.

Figure 4-1. Profile of the Highest Structures at Tobyhanna Army Depot.

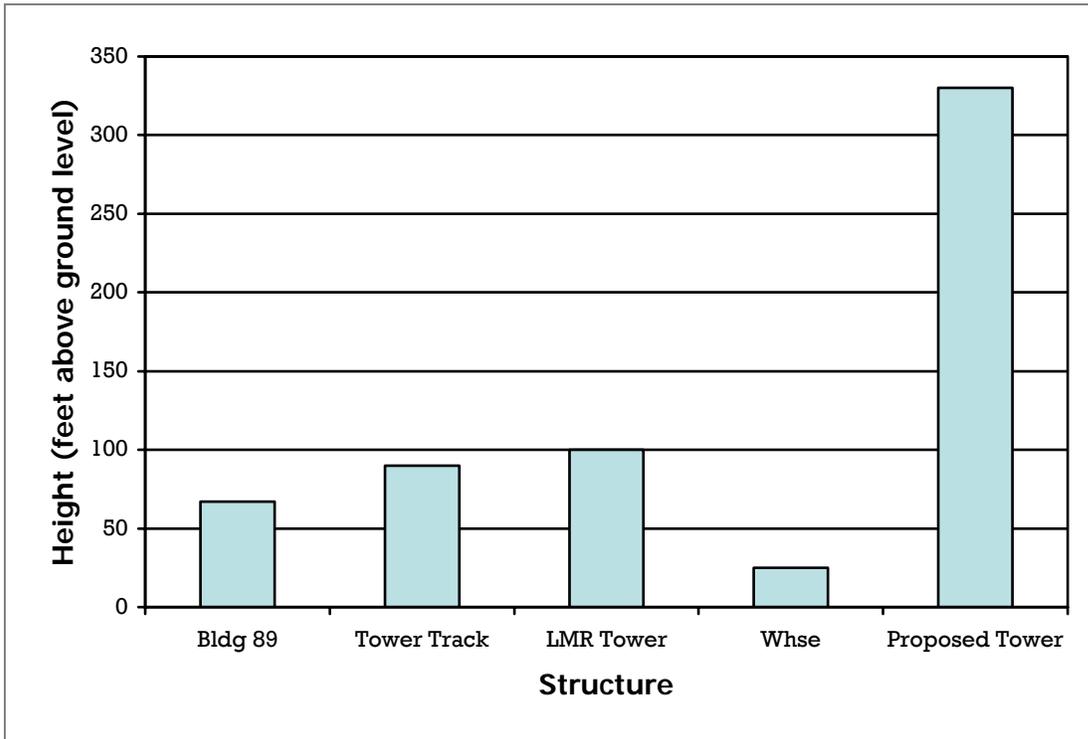
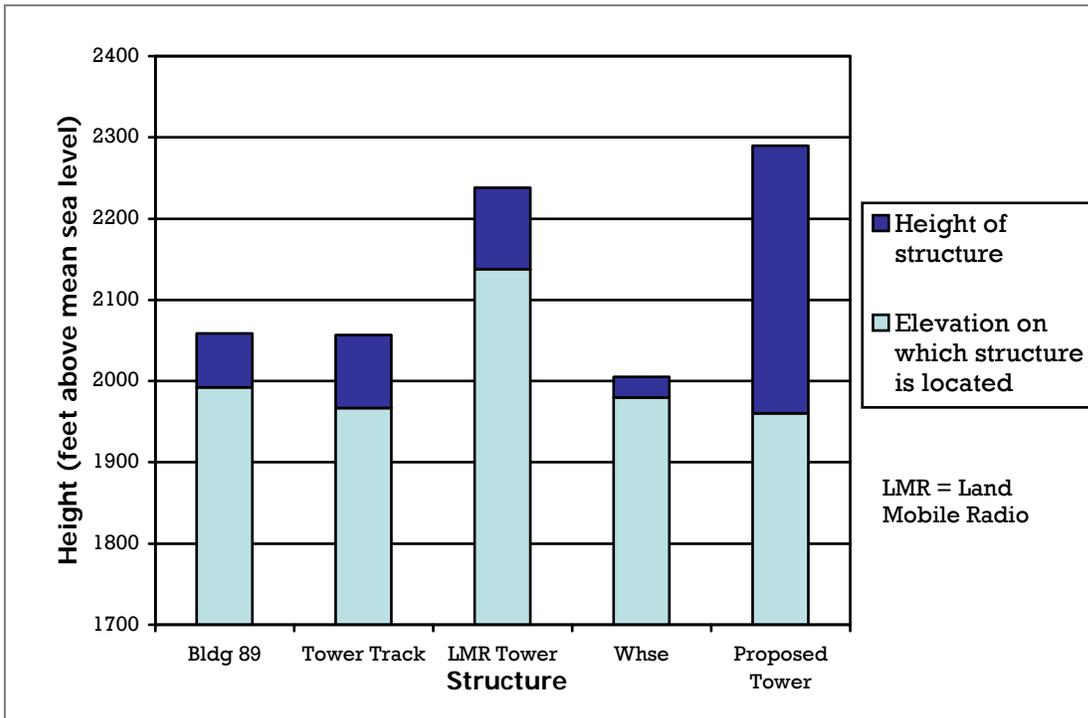


Figure 4-2. Profile of Highest Structures at Tobyhanna Army Depot, Relative to Terrain.



4.4 Air Quality

4.4.1 AFFECTED ENVIRONMENT

This section describes the existing air quality conditions at and surrounding TYAD. Ambient air quality conditions are discussed first, followed by air pollutant emissions at TYAD, and a regional air pollutant emissions summary. The ROI for air quality includes the Proposed Action construction locations and the adjacent areas.

4.4.1.1 Ambient Air Quality Conditions

National primary and secondary ambient air quality standards have been promulgated by the U.S. Environmental Protection Agency (EPA), pursuant to Sections 109 and 301(a) of the CAA (42 USC 7409, 7601(a), as amended). National primary ambient air quality standards define levels of air quality, which the EPA had determined as necessary, with an adequate margin of safety to protect the public health. National secondary ambient air quality standards define levels of air quality which are deemed necessary to protect the public from any known or anticipated adverse effects of a pollutant (40 CFR 50.2 (b)). These standards have been established for sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. Regions called Air Quality Control Regions aggregate measures of ambient air quality. A region that does not exceed the established standard for the ambient air quality pollutant is considered in “attainment.” Conversely, a region that does not achieve the standard is considered “non-attainment.”

TYAD is located in the Scranton/Wilkes Barre Air Quality Control Region. Monroe County, where TYAD is located, is designated in “attainment” for all National Ambient Air Quality Standard pollutants except ozone, which is a regional problem and not a site-specific problem for TYAD (TYAD 2006a). For one-hour ozone, Monroe County is considered to be a “previous nonattainment area” and is no longer subject to the one-hour standard as of June 15, 2005. The eight-hour ozone designation is that of a maintenance area (a previous nonattainment area). The previous nonattainment category for eight-hour ozone was basic, the least severe rating. The Pennsylvania State Implementation Plan (SIP) for ozone has been approved by the EPA. The SIP prescribes measures to reduce emissions from the sources and activities that contribute to the formation of ozone.

4.4.1.2 Air Pollutant Emissions at Installation

TYAD has one Title V operating permit that regulates the operation of the boiler plants, paint booths, sandblasting booths, and other emission sources. All permitted sources are in compliance with the appropriate regulations (TYAD 2006a).

TYAD maintains air pollution control equipment by adopting an aggressive preventive maintenance program. Environmental Management Division personnel perform monthly monitoring of all air pollution sources. To track reports and calculate emissions, TYAD utilizes computer programs, such as the Hazardous Material Management System and AIRMATE (Roy F. Weston, Inc.).

The major air quality concerns at TYAD are related to the emissions of volatile organic compounds (VOCs) from painting operations. Pennsylvania Department of Environmental Protection (PADEP) limits a facility's VOC emissions to 99.8 tons per year. TYAD meets this requirement by using compliant surface coatings (TYAD 2006a).

4.4.2 CONSEQUENCES

Potential impacts to air quality are considered major if the Proposed Action would:

- Increase ambient air pollution above any National Ambient Air Quality Standards (NAAQS);
- Contribute to an existing violation of any NAAQS; or
- Interfere with or delay timely attainment of NAAQS.

4.4.2.1 Preferred Alternative

Potential impacts to air quality from the Preferred Alternative would not be significant. Short-term air quality impacts from the Preferred Alternative would occur from tree clearing and construction activities associated with the movement and use of construction equipment. Construction activities would be temporary and would occur in a localized area. Contaminants generated from tree clearing and construction would include particulate matter, vehicle exhaust emissions, and increased wind-borne dust (i.e., fugitive dust). These impacts would be minor.

Long-term air quality impacts from the Preferred Alternative would occur from operating the radome and the renovated warehouse. The radome would be heated with propane-fired heaters and would not be air-conditioned. Emissions produced from heating of the radome would be minor. The warehouse would be retrofitted from an existing facility and increased air emissions would not be significant. No modifications to TYADs existing air quality permits would be required as a result of the Preferred Alternative. In addition, the PADEP Bureau of Air Quality has reviewed the description of the Preferred Alternative and agrees with the Army's air quality analysis.

4.4.2.2 No Action Alternative

Under the No Action Alternative, there would be no change in the current air quality conditions in the region.

4.5 Noise

4.5.1 AFFECTED ENVIRONMENT

This section describes the existing noise conditions at TYAD. Noise measurement is discussed first, followed by noise sources at TYAD. The ROI for noise is defined as TYAD and the immediate surrounding area.

4.5.1.1 Noise Measurement

Noise is generally defined as unwanted sound. Sound is all around us; it becomes noise when it interferes with normal activities such as speech, concentration, or sleep. Noise associated with military installations is a factor in land use planning both on- and off-post. Noise emanates from vehicular traffic associated with new facilities and from project sites during construction. Ambient noise (the existing background noise environment) can be generated by a number of noise sources, including mobile sources, such as automobiles and trucks, and stationary sources such as construction sites, machinery, or industrial operations. In addition, there is an existing and variable level of natural ambient noise from sources such as wind, streams and rivers, wildlife and other sources.

Sound is measured with instruments that record instantaneous sound levels in decibels (dB). A-weighted sound level measurements (dBA) are used to characterize sound levels that can be sensed by the human ear. The typical measurement for quieter sounds, such as rustling leaves or a quiet room, is from 20 to 30 dBA. Conversational speech is commonly 60 dBA, and a home lawn mower measures approximately 98 dBA.

4.5.1.2 Noise Sources at TYAD

There are no significant sources of noise at TYAD. Some machines and processes produce noise levels of approximately 85 dBA inside of buildings. There are no noise-sensitive receptors on post or adjacent to noise hazards at TYAD. These noise hazard areas, and the corrective actions taken to protect human health, are described in the Master Plan EA (TYAD 2006a) and TYADs Pollution Prevention Plan (TYAD 2002) and are also subject to all applicable U.S. Occupational Safety and Health Administration regulations. Corrective measures include visible signs, protective hearing devices, and annual hearing screenings for personnel in areas that exceed the allowable limit.

4.5.2 CONSEQUENCES

Potential noise impacts resulting from the Proposed Action are evaluated with respect to the potential for:

- Annoyance – noise can impact the performance of various every day activities such as communication and watching television in residential areas.
- Hearing loss – the EPA recommends limiting daily equivalent energy to 70 dBA, approximately 75 dBA day-night average sound level, to protect against hearing impairment over a period of 40 years (day-night average sound level is an average sound level generated by all operations during an average or busy 24-hour period, with sound levels of nighttime noise events emphasized by adding a 10-dB weighting). The Occupational Safety and Health standard for the maximum permissible continuous noise level for workers, without the use of controls, is 90 dBA for a duration of 8 hours per day [29 CFR 1910.95(b)(2)].
- Sleep interference, which is of great concern in residential areas.

The standard threshold for determining at what point noise impacts become a nuisance is 65 dBA day-night average sound level.

4.5.2.1 Preferred Alternative

Potential noise impacts from the Preferred Alternative would not be significant. The Preferred Alternative is similar in nature and productivity of existing installation missions. Therefore, no new noise hazards or long-term impacts would be introduced at TYAD after construction is complete.

Short-term impacts during construction would include noise from large machinery such as bulldozers, graders, cranes, and pavers. This type of construction equipment generates noise levels of about 85 dBA at 50 feet. Noise and sound levels would be typical of new construction activities and would be intermittent. These impacts would be mitigated by confining construction activities to normal working hours and employing noise-controlled construction equipment to the extent possible. Construction noise would subside after construction is complete. With the exception of the Village of Tobyhanna approximately 1.5 miles to the south and a housing development approximately 1.75 miles to the northeast, the area immediately surrounding TYAD is undeveloped and heavily wooded and therefore noise impacts to residential areas are not expected.

4.5.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to noise levels on or surrounding TYAD.

4.6 Geology and Soils

4.6.1 AFFECTED ENVIRONMENT

This section describes the geology and soil conditions at TYAD. Geologic and topographic conditions are discussed first, followed by soils. The ROI for geology and soils is the land within the Proposed Action project area.

4.6.1.1 Geologic and Topographic Conditions

TYAD is located in the Pocono Plateau section of the Appalachian Plateau Physiographic Province in the Pocono Mountains, west of the Appalachian Ridges. Elevation of the installation varies from 1,925 to 2,141 feet. The highest point is on Powder Smoke Ridge, and the lowest point is just south of Barney's Lake. The bedrock north of Powder Smoke Ridge is the Duncannon Member of the Upper Devonian Catskill Formation, underlying approximately 20 percent of the installation. The bedrock underlying the remaining 80 percent of TYAD is the Poplar Gap Member. The Poplar Gap Member is up to 1,050 feet thick, and is almost completely covered by surface deposits.

4.6.1.2 Soils

Large areas of soil at TYAD have been disturbed by facility construction activities, with the depot having about 226 acres of impervious land (TYAD 2006a). Soils at TYAD consist of 14 different types, and include the Oquaga, Lackawanna, and Wellsboro Series. These soils have been formed on glacial till and generally are very stony, moderately steep sloped, and strongly acidic. Most of the soils have a fragipan and many support wetland vegetation. Soils at TYAD are thoroughly described in the *Soil Survey of Monroe County, Pennsylvania* (USDA 1981). There are no mining activities in operation at the installation and the depot has no prime or unique farmland soils.

4.6.2 CONSEQUENCES

Potential impacts to geology or soils are considered significant if the Proposed Action would:

- Expose people or structures to major geologic hazards;
- Cause substantial erosion or siltation;
- Cause substantial land sliding; or
- Cause substantial damage to project structures/facilities.

4.6.2.1 Preferred Alternative

Potential impacts to geology and soils from the Preferred Alternative would not be significant. While the Preferred Alternative involves backfilling and grading for preparing the radar test

sites and target tower construction, these activities would not substantially change topographic patterns at the depot. Therefore, the impact on topography would not be significant.

Construction of the two concrete radar sites and associated access road and erection of the target tower would have direct, short-term and long-term impacts on soils at TYAD. Tree removal on Powder Smoke Ridge, with its topographic relief, would result in the potential for soil erosion during the site preparation and construction phases. Best management practices for erosion control, topsoil management, and revegetation would be required and stated in the construction contract. Erosion control would include leaving downed timber in place to help retain the native understory and the use of hay bales and silt fencing, as appropriate, to prevent the movement of soils into drainage ditches or low-lying areas. Use of best management practices would reduce the potential erosion effects to insignificant levels. Remodeling of the warehouse to test lab space would consist of interior work and would not impact soils.

The Preferred Alternative would result in less than 1 acre of impervious surfaces (including the access road), or a site-wide increase of less than 1 percent. This small increase in impervious surfaces would not reduce precipitation infiltration significantly.

Irreversible commitments of resources would include a minimal amount of soil loss through either wind or water erosion during construction activities. Once the facilities are operational and new vegetation is in place, additional erosion of topsoil would be minimal and would be limited or mitigated through adherence to a storm water management plan. The depot has no prime or unique farmland soils, and therefore there would be no impact to these soils.

4.6.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts to geologic or soil resources would occur.

4.7 Water Resources

4.7.1 AFFECTED ENVIRONMENT

This section describes water resources at TYAD, including surface and groundwater resources. Surface water includes lakes, rivers, and streams and is important for a variety of reasons, including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrogeologic resources of the property's physical environment. This section also discusses floodplains. Wetlands are discussed in Section 4.8.1.4. The ROI for water resources is the Powder Smoke Ridge area and areas downstream from the Proposed Action project area, including Oakes Swamp and areas adjacent to it.

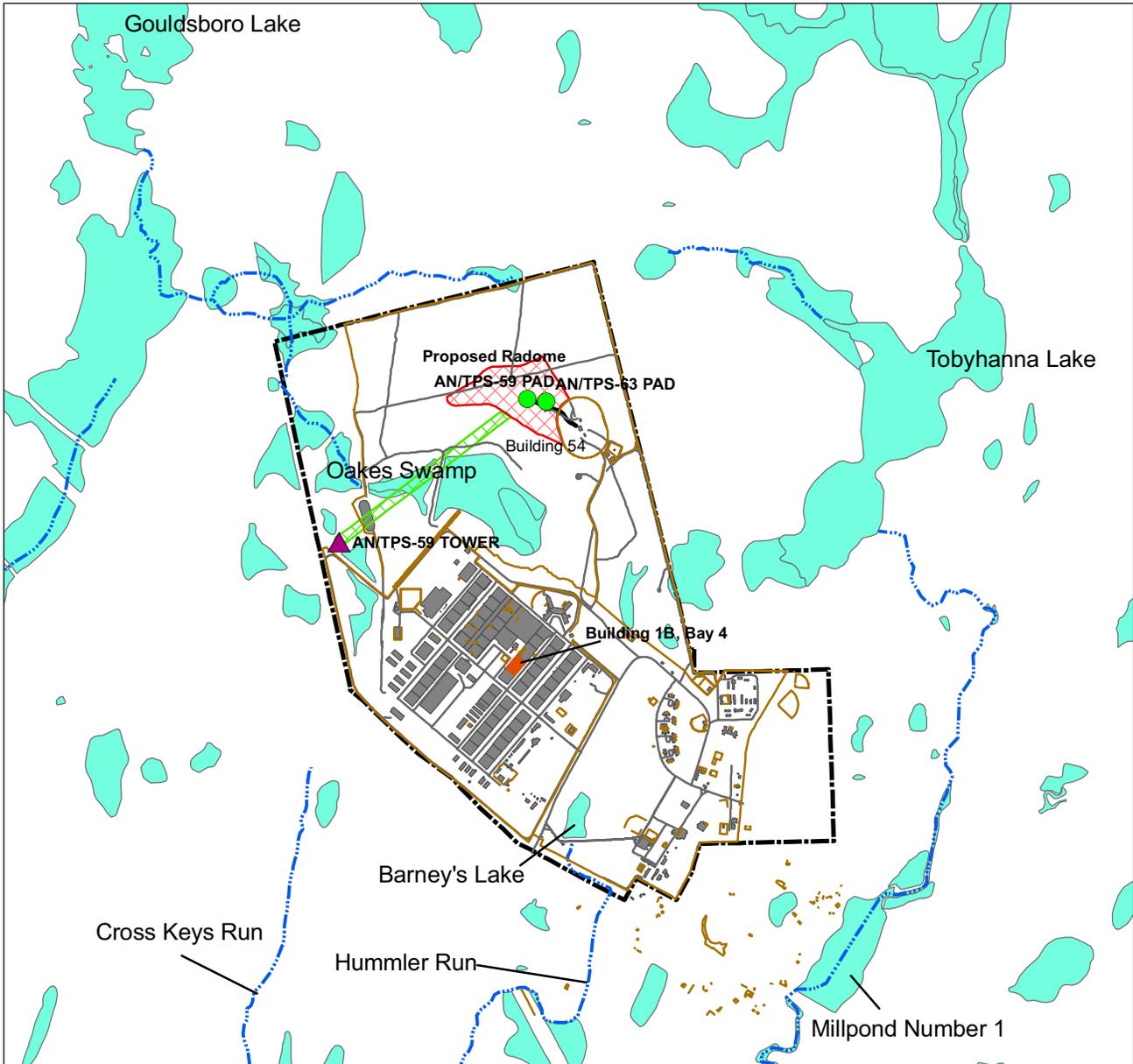
4.7.1.1 Surface Water

There are three streams located within TYAD, including Hummler Run, Cross Keys Run, and an unnamed tributary. Hummler Run drains Barney's Lake in the southeast portion of the depot and flows into Tobyhanna Creek. Cross Keys Run drains the southwest corner of the installation. Additionally, there are two sizable bodies of water located on the installation, Barney's Lake and Oakes Swamp, and three other large bodies of water within 1 mile of the installation, including Tobyhanna Lake, Gouldsboro Lake, and Millpond No. 1. The unnamed tributary drains Oakes Swamp and flows west from the north-central depot into Gouldsboro Lake. Hummler Run and the unnamed tributary are rated high quality waters and quality cold water fisheries, and Cross Keys Run is rated exceptional value water (Title 25, Pennsylvania Statutes, Chapter 93, *Water Quality Standards*). Surface water features are shown on Figure 4-3.

4.7.1.2 Hydrogeology/Groundwater

The Poplar Gap Member aquifer of the Catskill Formation is the major source of groundwater for domestic use in the region. Water quality is considered good. There are two minor local aquifers on the installation, one consists of the overlying glacial deposits and the other is the underlying bedrock fracture patterns. The Delaware River Basin Commission regulates use of the aquifers. A detailed description of the groundwater sources at TYAD is contained in the *Soil Survey of Monroe County, Pennsylvania* (USDA 1981).

In August 1990, TYAD was added to the CERCLA National Priorities List due to VOC contamination of soil and groundwater. The depot has two VOC-contaminated plumes, one of which flows off post, known as CERCLA Operable Unit #1 and another in the vicinity of the closed sanitary landfill, known as CERCLA Operable Unit #5. The Records of Decision for these operable units specify natural attenuation/long-term monitoring/institution controls as the selected alternatives to minimize the threat of migration of contaminants in the groundwater at TYAD and adjacent off-post areas. Implementation of these Records of Decision is ongoing, and both plumes' VOC content is decreasing. All affected wells off post are not used, and the occupants of TYAD utilize the depot's potable water line.



Legend

- Proposed Radar Test Pad Locations
- ▲ Proposed Target Tower Location
- Proposed Road
- Surface Water
- Construction and Tree Clearing Area
- Minimal Vegetation Trimming for Line-of-Sight Clearance Only
- · — · — · — · — Streams
- Existing Roads
- Existing Fences
- Building 1B, Bay 4
- Existing Buildings
- TYAD Boundary

TYAD Tobyhanna Army Depot



Prepared For:
U.S. Army Corps of Engineers, Mobile District

Figure 4-3
Regional Surface Water Hydrology
Near Tobyhanna Army Depot



4.7.1.3 Floodplains

EO 11988, *Flood Plain Management*, requires that development in floodplains be avoided if practicable. There are designated floodplains at TYAD shown as Zone A (approximate delineation of 100-year floodplain boundary) on the Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) for the Township of Coolbaugh, Pennsylvania (Community Map Panel No. 42188 0015A. November 4, 1988). The floodplains shown on the FIRM are in proximity to Oakes Swamp in the project area and adjacent to Barney's Lake and Hummler Run in the southern portion of TYAD (Figure 4-4). No floodplains encroach on the industrial complex areas of the depot.

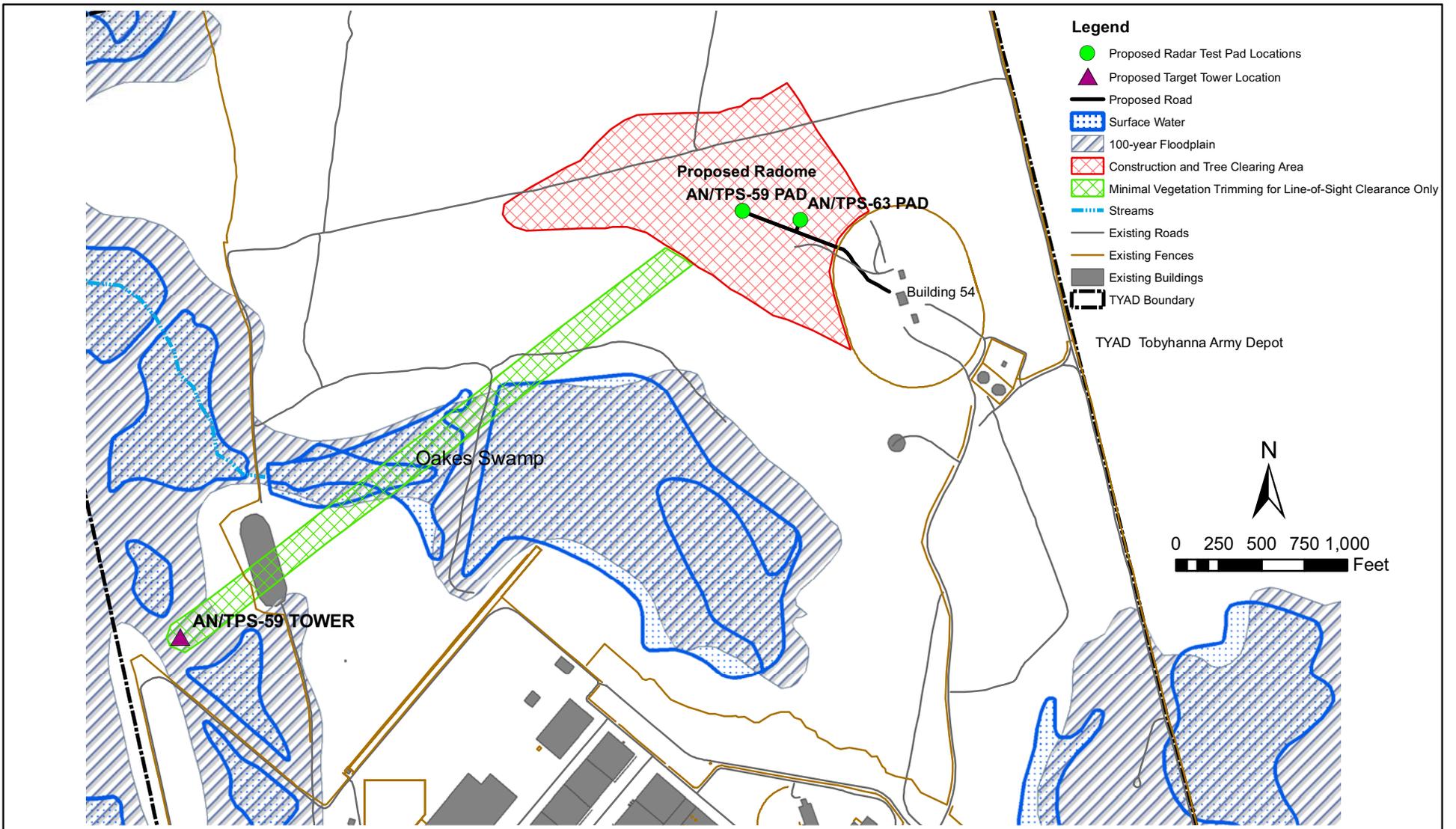
4.7.2 CONSEQUENCES

Potential impacts to water resources, including surface water and groundwater are considered significant if the Proposed Action would:

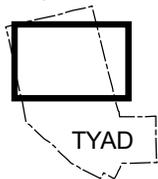
- Irreversibly diminish water resource availability, quality, and beneficial uses;
- Reduce water availability or interfere with a potable supply or water habitat;
- Create or contribute to overdraft of groundwater or exceed a safe annual yield of water supply sources;
- Result in an adverse effect on water quality or an endangerment to public health by creating or worsening adverse health hazard conditions;
- Result in a threat or damage to unique hydrological characteristics; or
- Violate an established law or regulation that has been adopted to protect or manage water resources of an area.

Potential impacts that would be considered significant related to floodplain management include:

- Potential damage to structures located in the floodplain; or
- Changes to the extent, elevation, or other features of the floodplain as a result of flood protection measures or other structures being silted in or removed from the floodplain.



Locator Map



Prepared For:

U.S. Army Corps of Engineers, Mobile District

Figure 4-4

Surface Water and Floodplains in the Proposed Action Area at Tobyhanna Army Depot



4.7.2.1 Preferred Alternative

Potential impacts to water resources from the Preferred Alternative would not be significant. There would be no measurable reduction in surface water quality or availability. Because the Preferred Alternative would result in a site-wide addition of less than 1 percent of impervious surfaces, it would not impact stormwater runoff or groundwater recharge locally by reducing the infiltration of precipitation.

Surface water quality impacts from erosion during construction and tree clearing would be mitigated by using standard construction erosion control methods and by leaving felled trees in place. The PADEP Bureau of Water Quality has reviewed the description of the Preferred Alternative and agrees with the Army's assessment, that through implementation of best management practices for erosion and sedimentation control, there would not be any adverse impact to surface water chemistry and stream ecology in the project area from implementation of the Preferred Alternative.

The Preferred Alternative would not involve activities that could impact the quality of groundwater in the aquifers beneath the installation or in the surrounding area. Therefore, there would be no impact to groundwater resources as a result of the implementation of the Preferred Alternative.

The Preferred Alternative would require tree felling and erection of the target tower within the 100-year floodplain. While EO 11988, *Flood Plain Management*, requires that development in floodplains be avoided if practicable, in this case, avoidance of the floodplain is not feasible, given the operational requirements of the radar system and limited siting options on TYAD for such a system. It should also be noted that a more or less simple structure, a radar target tower, is being erected in the floodplain rather than a structural complex with a great deal of associated infrastructure. Additionally, no personnel will be permanently stationed at the target tower. No significant impacts to the floodplain or the tower due to its location in a floodplain are expected. Some tree felling would be required in a portion of Oakes Swamp, designated as a jurisdictional wetland. Wetlands and impacts to wetlands are discussed in Section 4.8.1.4 and 4.8.2.1, respectively.

4.7.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to water resources.

4.8 Biological Resources

4.8.1 AFFECTED ENVIRONMENT

This section describes biological resources at TYAD. It focuses on plant and animal species or habitat types that are typical or are an important element of the ecosystem, are of special category importance (of special interest due to societal concerns), or are protected under state or federal law or statute regulatory requirement. Vegetation is discussed first, followed by wildlife, sensitive species, and wetlands. The ROI for biological resources is the land within the Proposed Action project area.

Per Army Regulation 200-1, Section 4-3, Paragraph d (1)(a), TYAD is exempt from the requirement to develop and implement an Integrated Natural Resources Management Plan. However, the depot works closely with various federal and state government agencies to manage and sustain its biological resources.

4.8.1.1 Vegetation

The natural vegetation at TYAD is found primarily in the non-industrial northern section of the depot and is representative of a second-growth northern hardwood forest. A total of 363 vascular plant species and sub-specific taxa were recorded on the depot. They include 16 ferns and fern relatives, 49 grasses, 40 sedges, ten rushes, 248 woody plants, and herbaceous plants and their families (TYAD 2006a). The principal tree and shrub species are gray birch (*Betula populifolia*), red maple (*Acer rubrum*), American beech (*Fagus grandifolia*), black chokeberry (*Aronia melanocarpa*), leather-leaf (*Chamaedaphne calyculata*), Labrador tea (*Ledum* spp.), and wild holly (*Ilex mucronata*). Other tree species common to the woodland areas are sugar maple (*Acer saccharum*), yellow birch (*Betula* spp.), eastern hemlock (*Tsuga canadensis*), white ash (*Fraxinus americana*), and eastern white pine (*Pinus strobus*). A complete description of the natural and managed (landscaped) vegetation at TYAD, including recommended silvicultural practices, is contained in planning level surveys for flora and vegetative communities.

Prior to its use as a firing range, the forested area of TYAD was extensively harvested. In recent years, the only recorded timber harvest was in the winter of 1970 and 1971, when 67 standard rough cords of pulpwood were harvested. As of the most recent timber inventory, the average tree diameter was 8 inches, and there were approximately 353,566 board feet (5,600 cords) of merchantable timber on TYAD.

4.8.1.2 Wildlife

There are many resident and transient populations of birds and mammals inhabiting the non-industrial area of TYAD. A 2001 planning level survey identified 16 different mammal

species and 90 bird species. Common mammals include white-tailed deer (*Odocoileus virginianus*), eastern cottontail (*Sylvilagus floridanus*), snowshoe hare (*Lepus americanus*), black bear (*Ursus americanus*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), short-tailed weasel (*Mustela erminea*), striped skunk (*Mephitis mephitis*), red fox (*Vulpes vulpes*), and eastern gray squirrel (*Sciurus carolinensis*). Common birds include crows (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), wild turkey (*Meleagris gallopavo*), several species of migratory waterfowl, and American woodcock (*Philohela minor*). Oakes Swamp contains enough water to support fish populations, including chain pickerel (*Esox niger*), and TYAD historically stocked the swamp with largemouth bass (*Micropterus salmoides*).

4.8.1.3 Sensitive Species

Under Section 7 of the ESA, the Army is mandated to use its authority to ensure actions are approved, funded, or carried out to protect both flora and fauna that are considered threatened and endangered species or proposed for listing as threatened or endangered species on TYAD. In compliance with the ESA, consultation and coordination has been initiated with the U.S. Fish and Wildlife Service, and a copy of this consultation letter may be found in Appendix A, along with copies of scoping letters sent to the Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Game Commission, and the Pennsylvania Fish and Boat Commission. The Pennsylvania Game Commission responded that although there are no federal listed species, the tree cutting will be accomplished so not to interfere with nearby osprey nesting activity.

Planning level surveys for flora and fauna were conducted in 2001, and in 1993 and 1994 the Nature Conservancy conducted an Inventory of Significant Plant and Animal Species and Natural Communities of TYAD. No federally listed species were found on TYAD during any of these surveys.

As shown in Table 4-1, four plant species have been listed as Plants of Special Concern in Pennsylvania by the Pennsylvania Department of Conservation and Natural Resources, and six bird species known to use habitat on TYAD have been granted special status by the Pennsylvania Game Commission. Most of these species are associated with the wetlands on TYAD.

Table 4-1. Pennsylvania Special-Status Species Found at TYAD.

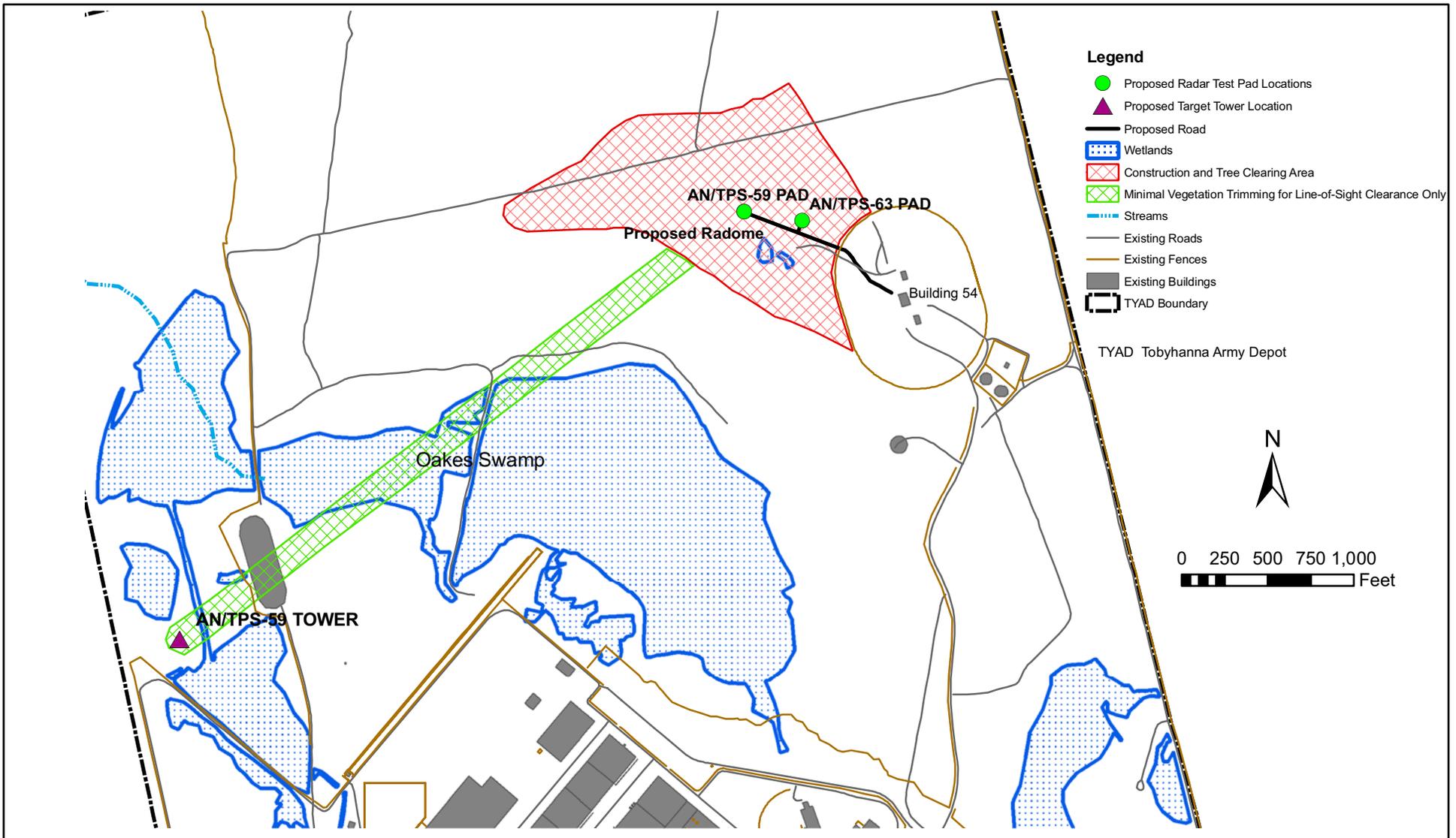
Scientific Name	Common Name	State Status
Plants		
<i>Carex disperma</i>	Soft-leaved sedge	Rare
<i>Carex paupercula</i>	Bog sedge	Threatened
<i>Elymus trachycaulus</i>	Slender wheatgrass	Under review for listing
<i>Ledum groenlandicum</i>	Bog Labrador tea	Rare
Birds		
<i>Anas rubripes</i>	American black duck	Watch List
<i>Circus cyaneus</i>	Northern harrier	Candidate at Risk
<i>Dendroica caerulescens</i>	Black-throated blue warbler	Watch List
<i>Hylocichla mustelina</i>	Wood thrush	Watch List
<i>Pandion haliaetus</i>	Osprey	Threatened
<i>Wilsonia canadensis</i>	Canada warbler	Watch List

4.8.1.4 Wetlands

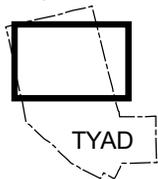
Wetlands are defined by the U.S. Army Corps of Engineers (USACE) and the EPA based on the presence of wetland vegetation, wetland hydrology, and hydric soils with certain land area considerations. Wetlands and other surface water features, which may include intermittent and perennial streams, are generally considered “waters of the United States” by the USACE, and under their definition of “jurisdictional waters/features,” are protected under Section 404 of the CWA. Activities in wetlands are also regulated under Title 25 of Pennsylvania Code, Chapter 105.

The USACE, Philadelphia District, Tobyhanna Office, performed a delineation of jurisdictional wetlands in March 1998. Wetlands identified during this delineation are shown on Figure 4-5. TYAD has 161 acres of wetlands, with Oakes Swamp being the most prominent of the depot’s wetlands. It receives drainage from approximately 580 acres, mostly from undeveloped areas on the depot. This wetland contains open water (with several snags) as well as marsh-type vegetation. Other wetland sites on the depot are of the forested and shrub/scrub types, such as isolated wetlands on Powder Smoke Ridge.

In addition to the wetlands found within the depot, large areas of wetlands can be found in the surrounding state game lands and parks.



Locator Map



Prepared For:
U.S. Army Corps of Engineers, Mobile District

Figure 4-5

Wetlands in the Proposed Action Area
at Tobyhanna Army Depot



4.8.2 CONSEQUENCES

Potential impacts to biological resources are considered significant if the Proposed Action would:

- Affect a threatened or endangered species;
- Substantially diminish habitat for a plant or animal species;
- Substantially diminish a regionally or locally important plant or animal species;
- Interfere substantially with wildlife movement or reproductive behavior;
- Result in a substantial infusion of exotic plant or animal species; or
- Destroy, lose, or degrade jurisdictional wetlands (as defined by Section 404 of the CWA).

EO 11990, *Protection of Wetlands*, requires federal agencies to avoid actions, to the extent practicable, which would result in the location of facilities in wetlands.

4.8.2.1 Preferred Alternative

Potential impacts to biological resources from the Preferred Alternative would not be significant. Renovation of the warehouse bay would have no impacts on biological resources because it involves an existing building in the developed industrial complex. The Preferred Alternative would entail clearing approximately 32 acres of forest for the radar test ranges, or about 5 percent of TYADs currently undeveloped land. Because of the large expanses of forest in the surrounding state parks and state game land tract, this would not have an impact on regional biodiversity or ecosystem function. However, clearing trees would have long-term impacts on local habitats and would result in a change in species composition in and near cleared areas, although unwanted vegetation regrowth would be controlled by aggressive vegetation management, including application of TYADs Integrated Pest Management Plan (TYAD 2006c) for the control of weed species. Felled trees would be left in the affected area to restore nutrients to the soil.

Construction of the proposed radar test ranges has the potential to displace a small number of terrestrial and avian wild animals because of noise or loss of woodland habitat due to clearing and grading of land. However, noise impact would be temporary, and habitat loss would be minimal compared to the surrounding area. The clearing of 32 acres of forest would have minimal long-term impacts to local habitat through the creation of more forest edge, which could benefit some species, especially game species. There would be minor impacts on other species as a result of changes in the interior forest microclimate (reaching distances well within the remaining stands), proliferation of disturbance-adapted vegetation, and increased predation by opportunistic predators including raccoons, skunks, crows, and jays. However,

the Preferred Alternative would have no overall effect on biodiversity or regional plant and animal populations, and therefore no significant long-term impacts to wildlife are anticipated from implementation of the Preferred Alternative.

The undeveloped land on TYAD provides nesting habitat for migratory bird species. Although minimal impacts to migratory birds are possible as a result of the Preferred Alternative, no long-term impacts are expected to occur from the result of this clearing. However, TYAD will coordinate with the U.S. Fish and Wildlife Service and Pennsylvania Game Commission in accordance with EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, if any migratory birds, or their nests containing eggs or still in use by juveniles, would be disturbed.

The Preferred Alternative would not cause adverse impacts to any federally-listed threatened or endangered species, for no such species are known to occur on TYAD. Construction would have minimal adverse impacts on osprey nests near Oakes Swamp because of the lack of well-established osprey populations in the proposed cleared area. There is one nesting pair of ospreys that uses an artificial nesting platform located approximately 150 feet northwest of the proposed target tower. There are no known osprey nests in the natural vegetation around the swamp. As described above for migratory birds in general, TYAD will coordinate with the U.S. Fish and Wildlife Service and Pennsylvania Game Commission if any osprey, or their nests containing eggs or still in use by juveniles, would be disturbed. The Preferred Alternative would result in minimal short-term impacts to ospreys during timber felling through removal or disturbance of hunting perches. The creation of more forest edge could also result in long-term impacts to the black-throated blue warbler and the Canada warbler, which are both forest interior species that are sensitive to edge effects. None of these impacts would be significant, however, because the Preferred Alternative would not substantially diminish habitat for these species and would not substantially diminish regional or local populations.

Clearing the trees between the proposed target tower and the test pads would result in minimal short and long-term impacts to wetlands on TYAD, notably Oakes Swamp. Minimal short-term impacts would result from disturbance during tree felling, as impacts would be minimized by banning vehicle operation in wetlands and by removing hardwood vegetation in wetlands by hand. Minimal long-term impacts would result from changes in water and soil temperature due to increased exposure to sunlight. There would be no construction, fill, or dredging in wetlands, and because Oakes Swamp is substantially below the line of sight required between the radar test pads on Powder Smoke Ridge and the target tower, little or no vegetation would need to be removed from the Oakes Swamp area and no snags would be

removed. A need to obtain CWA Section 404 permits is not anticipated. The nearest construction activity to wetlands on Powder Smoke Ridge would be the proposed 1,000-foot road, which would be at least 50 feet from the nearest wetland on Powder Smoke Ridge and would therefore not impact this wetland; pylons to stabilize the target tower would not be constructed in wetlands.

Operation of the proposed radar test ranges and renovated warehouse would have little additional impact after construction, except when wetlands would be accessed to maintain vegetation clearances. Because only 12 of the incoming personnel would be stationed on Powder Smoke Ridge, there would be little additional vehicular traffic to and from the radar test ranges on the ridge, so there would be little additional noise and only a slight risk of increase in roadkilled animals.

4.8.2.2 No Action Alternative

Under the No Action Alternative, no changes or impacts would occur to biological resources.

4.9 Cultural Resources

4.9.1 AFFECTED ENVIRONMENT

This section describes the cultural resource conditions on TYAD. The prehistoric and historic background of the area is summarized first, followed by the status of cultural resource inventories and Section 106 consultations, and Native American resources.

4.9.1.1 Prehistoric and Historic Background

Although human occupation of the region is well documented for the past 10,000 to 12,000 years, there is relatively little likelihood that archaeological resources associated with Native American or early historic use of the area will be found at TYAD. Given the site's developmental history and modern cultural landscape, it is expected that the limited historic archaeological resources within TYAD would be most reflective of the site's industrial use, which began in the mid-19th century. Because of the limited potential for prehistoric archaeological resources at TYAD, the reader is referred to TYADs Integrated Cultural Resource Management Plan (TYAD 2001) for prehistoric background.

TYADs early military history, between 1913 and 1949, was comprised of various periods of activity and closure, depending on the Federal Government's needs. Details can be found in TYADs Integrated Cultural Resource Management Plan (TYAD 2001).

In 1951, the Army purchased the tract of land which TYAD now encompasses in order to build a storage depot for the U.S. Army Signal Corps. Its main purpose was to replace the Signal Corps' leased facility located in Baltimore, Maryland. The original facilities were

constructed between 1951 and 1954. Since then, numerous changes in both TYADs mission and its facilities have taken place. TYADs original mission as that of a storage depot has all but disappeared in place of its current mission as an industrial communication and electronics equipment maintenance and fabrication facility. This change in mission requirements brought with it the inevitable changes in the original facilities, which have included interior and exterior facility renovations, the construction of new facilities, the demolition of obsolete facilities, and the installation of new industrial manufacturing processes and equipment. In 1995, BRAC initiatives brought additional workload and new mission requirements to TYAD, including the fabrication of missile components and new radar systems. Today, TYAD is the largest full-service communications-electronics maintenance facility in the DoD.

4.9.1.2 Status of Cultural Resource Inventories and Section 106 Consultations

During 1995, the USACE, Baltimore District, performed a Phase I Cultural Resources Investigation of TYAD (USACE 1995). The investigation was performed per the archaeological overview and management plan recommendations. The unexploded ordnance site on TYAD was not visited due to potential risks to the archaeologist performing the investigation. The Phase I investigation found no significant sites or artifacts. However, the investigation report recommended further review of the former Sherman Farm House complex. The Phase II investigation performed in 1997 found a moderate density of artifacts with a low density of artifact classes (USACE 1998). It was recommended that the site not be eligible for inclusion on the National Register of Historic Places (NRHP) and no further archaeological work was recommended.

TYADs Integrated Cultural Resource Management Plan (TYAD 2001) outlines Army policies, procedures, and responsibilities for meeting cultural resources compliance and management requirements at TYAD and has been designed as a component of the installation's Master Plan and as the Installation Commander's decision document for conducting cultural resources management actions.

TYAD has conducted Section 106 consultation and coordination with the State Historic Preservation Officer (SHPO) via the Pennsylvania Historical and Museum Commission regarding the Proposed Action. The SHPO has indicated concurrence with TYAD that there are no NRHP-eligible or listed historic archaeological properties in the proposed project area. Consultation letters are included in Appendix A.

4.9.1.3 Native American Resources

No Native American concerns regarding the Proposed Action have been identified. Notification letters, contained in Appendix A, regarding the Proposed Action have been sent to the Onondaga Nation, the St. Regis Mohawk Tribe, and to Emporia State University on behalf of the Delaware Tribe of Indians.

4.9.2 CONSEQUENCES

Potential impacts to historic properties and/or archaeological resources are considered significant if the Proposed Action would:

- Physically destroy, damage, or alter all or part of the property;
- Physically destroy, damage, alter or remove items from archaeological contexts without a proper mitigation plan;
- Isolate the property from or alter the character of the property's setting when that character contributes to the property's qualification for the NRHP;
- Introduce visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect a property resulting in its deterioration or destruction; or
- Transfer, lease, or sell the property (36 CFR 800.9[b]) without a proper preservation plan.

4.9.2.1 Preferred Alternative

The Preferred Alternative would not have an adverse impact on any archaeological or architectural resource at TYAD. As discussed in Section 4.9.1.2, previous cultural resource investigations of TYAD have determined that the depot has little or no potential for containing intact, significant archaeological sites. Additionally, there are no known NRHP-eligible or listed architectural resources in the area of the Proposed Action. .

4.9.2.2 No Action Alternative

Under the No Action Alternative, no impacts to archaeological, architectural, or Native American resources at TYAD would occur.

4.10 Socioeconomics

4.10.1 AFFECTED ENVIRONMENT

This section describes existing socioeconomic conditions at TYAD, including economic development, demographics, housing, quality of life, environmental justice, and protection of children. The ROI for socioeconomic impacts consists of Carbon, Lackawanna, Luzerne, Monroe, and Wayne counties, Pennsylvania. This five-county area comprises the region in

which the predominant socioeconomic effects of the Proposed Action would take place. The geographical extent of the ROI is based on the residential distribution of the installation's military, civilian, and contracting personnel, and the location of businesses that provide goods and services to the installation and its employees.

4.10.1.1 Economic Development

TYAD is the largest industrial employer in northeastern Pennsylvania. The total workforce at TYAD is approximately 5,800 people.

The region's economic development organization, the Northeastern Pennsylvania Alliance, estimates the depot's economic impact in the region exceeds \$1 billion annually and creates and sustains approximately 8,000 jobs in the area, based on TYAD Fiscal Year 2004 salaries and expenditures (TYAD 2006a). The unemployment rates for Monroe, Carbon, Lackawanna, Luzerne, and Wayne counties in 2000 and 2006 are shown in Table 4-2.

The five-county area (Carbon, Lackawanna, Luzerne, Monroe, and Wayne counties), in which over 92 percent of the TYAD workforce resides (TYAD 2006a), is the region expected to be the most affected by economic activities at TYAD.

Table 4-2. Unemployment Rates for Monroe, Carbon, Lackawanna, Luzerne, and Wayne Counties in 2000 and 2006.

County	Unemployment Rate (percent)	
	2000	2006
Carbon	5.2	5.9
Lackawanna	4.5	5.0
Luzerne	5.2	5.5
Monroe	4.2	5.2
Wayne	4.6	4.2

Source: U.S. Bureau of Labor Statistics 2008

4.10.1.2 Demographics

TYAD is located in Monroe County, Pennsylvania. The demographic profile for the five-county ROI is shown in Table 4-3. In 2000, the proportion of the ROI population that had graduated from high school ranged from 79 percent in Carbon County to 84 percent in Monroe County, and the proportion that had a college degree ranged from 11 percent in Carbon County to 20 percent in Monroe County (U.S. Census Bureau 2008a).

Table 4-3. Demographic Profile for the Five-County Socioeconomic ROI.

County	Area (square miles)	Population			% Minority (2000)	% Below Poverty Level (2000)
		2000	2006 (estimated)	% Change		
Carbon	381	59,058	58,802	-0.4	3.1	6.8
Lackawanna	459	218,960	213,295	-2.6	4.1	7.0
Luzerne	891	331,307	319,250	-3.6	4.0	8.1
Monroe	608	109,350	136,687	+25.0	15.2	6.2
Wayne	729	43,092	47,722	+10.7	4.3	8.4
ROI Totals	3,068	777,756	801,929	+3.1	9.0	7.3

Source: U.S. Census Bureau 2008a

4.10.1.3 Housing

In 2000 there were 368,714 housing units in the five-county ROI. Median house prices in 2000 ranged from \$82,100 in Carbon County to \$125,200 in Monroe County (U.S. Census Bureau 2008a).

4.10.1.4 Quality of Life

Quality of life is discussed in terms of public safety and medical services, schools, and recreation.

Public safety and medical services. An on-post fire station serves TYAD, and most buildings on the depot are protected from fires by wet or dry automatic sprinkler systems. Coolbaugh Township Volunteer Fire Company provides fire protection for the entire township. Depot security guards, Coolbaugh Township Police, and the Pennsylvania State Police provide police protection.

The fundamental mission of the U.S. Army Health Clinic at TYAD is to treat and prevent work-related injuries and illnesses to the TYAD civilian workforce and to active duty personnel attached to the depot. Child health care is addressed through the local doctors and hospital system, as there are no full service healthcare facilities located at TYAD. Mountain Family Care, a family healthcare clinic, is approximately 2 miles southeast of TYAD, and the Moses Taylor Hospital, with 223 beds, is located in Scranton.

Schools. In the Village of Tobyhanna, approximately 1.5 miles away, there are three elementary schools and one middle school (grades 6-8). In the Village of Swiftwater, approximately 10.5 miles away, there is a secondary school (grades 7-12). There is also a

private (Catholic) school (grades 1-8) near the Village of Cresco, approximately 10 miles from the depot.

Higher education in the ROI is as follows: Luzerne County - College Misericordia, Kings College, Wilkes University and Luzerne County Community College; Lackawanna County - University of Scranton, Marywood College, Penn State Worthington, and Keystone College; Monroe County - East Stroudsburg University and Northampton County Community College. All of these higher education facilities are within 40 miles of TYAD.

Recreation. The Pocono Mountain region provides a multitude of recreational facilities and activities for all seasons. Northeastern Pennsylvania has over 475 square miles of state parks, forests, and game lands. Recreational activities in the region include skiing, snowmobiling, ice-skating, sailing, golf, tennis, boating, hiking, camping, white-water rafting, swimming, fishing, hunting, horseback riding, and other activities at both private and public facilities (TYAD 2006a).

Within the depot, outdoor recreational opportunities include picnicking and fishing at Barney's Lake; a limited number of tennis, handball, volleyball, and basketball courts; ball fields; nature trails; swimming pool; and general-purpose play areas. Indoor recreational opportunities are available at the gymnasium.

4.10.1.5 Environmental Justice

Environmental justice is the fair treatment for people of all races, cultures, and incomes, regarding the development and implementation (or lack thereof) of environmental laws, regulations, and policies. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs federal agencies to address environmental and human health conditions in minority and low-income communities. A memorandum from former President Clinton concerning EO 12898 stated that federal agencies would collect and analyze information concerning a project's effects on minorities or low-income groups when required by NEPA. If such investigations find that minority or low-income groups experience a disproportionate adverse effect, then avoidance or mitigation measures are necessary.

The percent of the population composed of minorities and the percent below the poverty level in 2000 in each of the five counties in the ROI is shown in Table 4-3. The average poverty threshold for a family of four in 2000 was \$17,603 in annual income, and for a family of three it was \$13,738. The national rate for people living in poverty was 9.2 percent in 2000 (U.S. Census Bureau 2008b).

There are no minority or low-income communities adjacent to TYAD (TYAD 2006a).

4.10.1.6 Protection of Children

EO 13045, *Protection of Children from Environmental Health and Safety Risks*, requires federal agencies, to the extent permitted by law and mission, to identify and assess environmental health and safety risks that might disproportionately affect children.

Children occupying TYAD are residents or visitors (for example, in the family housing area or recreational facilities). Special precautions are taken at TYAD for their safety including the use of fencing, limitations on access to certain areas, and provision of adult supervision.

4.10.2 CONSEQUENCES

Potential socioeconomic impacts are considered significant if the Proposed Action would cause:

- Substantial gains or losses in population and/or employment;
- Disequilibrium in the housing market, such as severe housing shortages or surpluses, resulting in substantial property value changes; or
- Disequilibrium in the quality of life, such as severe shortages of hospitals, emergency response services, and schools.

Potential environmental justice impacts are considered significant if the Proposed Action would cause disproportionate effects on low-income and/or minority populations. Potential impacts to children are considered significant if the Proposed Action would cause environmental health and safety risks that might disproportionately affect children.

4.10.2.1 Preferred Alternative

Potential socioeconomic impacts from the Preferred Alternative would be beneficial but would not be significant. The Preferred Alternative would result in short-term economic impacts due to the increase in the population of TYAD from construction workers, but this increase would only last for the duration of the two to three month construction timeframe. Recruitment for construction workers is projected to be done by the contractor and would most likely consist of workers from the ROI.

The economic effects of the construction and operations phases of the Proposed Action were estimated using the Economic Impact Forecast System (EIFS) model, a computer-based economic tool that calculates multipliers to estimate the direct and indirect effects resulting from a given action. Changes in spending and employment associated with the Proposed Action represent the direct effects of the action. Aside from the incoming numbers of civilian

and military personnel and the percent of those expected to relocate to the ROI, EIFS model inputs include the \$4.2 million construction budget (including \$1 million for MEC removal and vegetation clearing) and the average income of the incoming personnel, which is estimated to be \$50,000 per year. Based on the input data and calculated multipliers, the model estimates changes in sales volume, income, employment, and population in the ROI, accounting for the direct and indirect effects of the action. For purposes of this analysis, a change is considered significant if it falls outside the historical range of ROI economic variation. To determine the historical range of economic variation, the EIFS model calculates a rational threshold value (RTV) profile for the ROI. This analytical process uses historical data for the ROI and calculates fluctuations in sales volume, income, employment, and population patterns. The historical extremes for the ROI become the thresholds of significance (i.e., the RTVs) for social and economic change. If the estimated effect of an action falls above the positive RTV or below the negative RTV, the effect is considered to be significant. For this analysis, the ROI is the five-county area described in Section 4.10.1 and the change in local expenditures refers to the estimated construction, payroll, and personal spending associated with the Proposed Action.

Based on the EIFS model, the Proposed Action would generate about 169 direct and 128 indirect jobs in the economic ROI during construction and operations activities. This increase in employment would represent a 0.08 percent increase in the region's employment levels and would fall short of the positive RTV of 2.67 percent to make any significant positive difference. The Proposed Action would also generate positive changes in the other economic indicators estimated by the EIFS model, including a 0.13 percent increase in total sales volume, and a 0.07 percent increase in total regional personal income. However, these increases are very minor and do not exceed the positive RTVs for their respective categories, and are therefore not significant. The EIFS model input and output for the proposed BRAC actions at TYAD may be found in Appendix B.

Once the proposed test ranges and renovated warehouse are operational, 121 new personnel would be expected to relocate to the ROI. This represents an approximate 0.015 percent increase in the population of the ROI, and would therefore have a negligible impact on the demographics of the region. Taking into account the estimated number of family members that would accompany the new personnel to the region, the population in the ROI would be expected to grow by about 0.04 percent. The magnitude of this minor increase falls short of the upper and lower RTV thresholds and is therefore not a significant impact.

Housing for the planned realignment would be accommodated by off-post housing. Because the new personnel would be expected to settle throughout the ROI, impacts to the regional

housing market would be negligible and not significant. For the same reason, the Preferred Alternative would not be expected to have any significant impacts on the quality of life in the ROI. Due to the isolated nature of the radar system, radiofrequency fields would not impact the safety of the surrounding population. Additionally, the radar system and operations would be reviewed by the TYAD Safety Division to preclude any health hazards to depot employees.

There would be no environmental justice impacts at TYAD or in the surrounding area, because impacts from the Preferred Alternative would not be localized or placed primarily on minority and/or low-income populations. There would be no environmental health and safety risks that might disproportionately affect children, because children are restricted from the areas proposed for construction and operation of the test ranges and renovation of the warehouse.

4.10.2.2 No Action Alternative

Under the No Action Alternative, there would be no changes to existing socioeconomic conditions within the ROI.

4.11 Transportation

4.11.1 AFFECTED ENVIRONMENT

This section describes the general transportation conditions within TYAD and its surroundings. The ROI for transportation includes TYAD and roads within the immediate vicinity of the depot.

4.11.1.1 Roadways and Traffic

Approximately 14 miles of paved roads and 2 miles of untreated roads are within TYAD.

Four interstate highways and the Pennsylvania Turnpike are within the immediate vicinity of TYAD. I-380 runs parallel to the southwestern boundary of the depot with a full traffic interchange 0.5 mile from the main entrance. This highway connects with I-80, 8 miles southeast; I-84, 16 miles east; I-91, 19 miles northwest; and the Pennsylvania Turnpike, 18 miles southwest of the depot main access road where it connects with I-380.

Two state routes and one state road (Gouldsboro Road – SR 4013) provide access to and from the depot. State Route 423 services the eastern gate. State Route 611 and Gouldsboro Road service the southern gate (main gate) via the access road from the I-380 interchange at Exit 8 (TYAD 2006a).

Estimated average daily traffic volume in 1996 for main roadways that service TYAD is as follows: 7,634 vehicles eastbound on I-380; 7,688 vehicles westbound on I-380; 2,426

vehicles both ways on State Route 423; and 3,527 vehicles both ways on State Route 611 (TYAD 1996).

4.11.1.2 Installation Transportation

TYAD instituted a ride-sharing program in September 1982 as a means to conserve fuel, improve air quality, and reduce traffic congestion. Since its inception, the program has provided a popular form of transportation for many depot employees, and is considered very successful.

4.11.1.3 Public Transportation

Public transportation at TYAD is not available. Public bus routes do not stop at TYAD.

4.11.2 CONSEQUENCES

Potential impacts to transportation are considered significant if the Proposed Action would:

- Disrupt or improve current transportation patterns and systems;
- Deteriorate or improve existing levels of service;
- Change existing levels of safety; or
- Disrupt and deteriorate current installation activities.

4.11.2.1 Preferred Alternative

Potential impacts to transportation from the Preferred Alternative would not be significant. TYAD currently employs approximately 5,800 people and approximately 12 people would be stationed at the proposed radome and approximately 50 at the renovated warehouse. No traffic or parking problems are anticipated. The remainder of the 121 additional people defined in the Proposed Action would be spread out in different locations within TYAD. Impacts on transportation would be minor.

4.11.2.2 No Action Alternative

Under the No Action Alternative, there would be no changes to the existing transportation infrastructure at the site or in surrounding areas.

4.12 Utilities

4.12.1 AFFECTED ENVIRONMENT

This section describes the existing conditions of utilities at TYAD. The ROI for utilities is TYAD and the sources that provide its utilities.

4.12.1.1 Potable Water Supply

Potable water is obtained from six wells on the installation. From these six wells, two pumping stations feed four water tanks comprising a total of 1,400,000 gallons of storage capacity. The depot is permitted to withdraw up to 20,000,000 gallons of water per 30-day period. Presently, the depot withdraws approximately 11,751,752 gallons per 30-day period. Additional information on TYADs potable water supply may be found in the Master Plan EA (TYAD 2006a).

4.12.1.2 Wastewater System

TYAD has both industrial and sanitary sources of wastewater. The industrial sources consist primarily of metal finishing waste. The installation has an industrial wastewater pretreatment plant and a sewage treatment plant. Wastewater from the industrial source is pretreated before entering the sewage treatment plant to avoid disrupting its operation. This improves the quality of the wastewater flowing to the sewage treatment plant. The sewage treatment plant is capable of treating 802,000 gallons per day (gpd). Currently, the plant treats 241,885 gpd. The industrial wastewater pretreatment plant currently treats an average of 17,500 gpd, which is 30 percent of its overall capacity (approximately 57,600 gpd), as discussed in the Storm Water Pollution Prevention Plan for Tobyhanna Army Depot (TYAD 2004a).

Both the sewage treatment plant and the industrial wastewater pretreatment plant are regulated under an NPDES permit (PA-0010987) issued by PADEP in 2003.

4.12.1.3 Storm Water System

Six storm water discharge pipes at TYAD are regulated under an NPDES permit (PA-0010987) issued by PADEP in 2003.

4.12.1.4 Energy Sources

PPL Electric Utilities provides electricity to TYAD via a 69-kilovolt (kV) feeder line running from Mount Pocono to the TYAD substation. Distribution voltage is 12.47 kV. Peak power demand in 2004 was 10,796 kilowatts, while the 2004 annual electricity consumption was 58,763,000-kilowatt hours. TYAD uses natural gas to fuel the decentralized heating system comprised of steam boilers and air rotation units (i.e., warm air heat). Approximately 313,370 million British thermal units of natural gas were burned in 2004. TYAD also uses propane and fuel oil number two primarily for heating. Approximately 242,970 gallons of fuel oil number two and 63,000 gallons of propane were used in 2004 (TYAD 2006a).

4.12.1.5 Communications

The TYAD telephone system is a Nortel SL100 Super Node system installed to provide efficient telecommunication transactions. Although the system is equipped with 4,689 main lines; only 3,371 are currently in use. The system has an expansion capability to 120,000 main lines. The SL100 also features Call Pilot mail, can accommodate 4,000 subscribers, and can be upgraded to 7,500 subscribers. At present, there are 1,157 users on the Call Pilot mail. Fifty Integrated Services Digital Network (ISDN) lines are programmed in the switch with seven spare on hand but not installed on the switch. TYAD utilizes 35 of the 50 ISDN lines for Video Conferencing with speeds up to 384 kilobytes per second. The SL100 is capable of Voice over Internet Protocol but is not currently configured for this asset (TYAD 2006a).

4.12.1.6 Solid Waste

Disposal of all solid waste is by contract to off-post facilities. During 2007, the refuse contractor removed 4,374,620 pounds of solid waste from the depot. During that same period, the depot recycled 3,814,999 pounds, or about 46 percent of its solid waste. Solid waste items are disposed of at Keystone Landfill in Dunmore, Pennsylvania and the Grand Central Sanitary Landfill in Pen Argyl, Pennsylvania which is considered the secondary landfill for solid waste disposal. Keystone Landfill and Grand Central Sanitary Landfill have 10-year and 16-year life expectancies, respectively, from the end of fiscal year 2007. The depot contributes less than 1 percent of each landfill's daily allowable volume (TYAD 2006a).

4.12.2 CONSEQUENCES

Effects on utilities are considered in terms of increases in demands on systems and the ability of existing systems to meet those demands. Potential effects to the environment could occur if the existing systems are insufficient to handle the increased demands requiring construction and operation of a new system that may affect the environment. Utility demands include both construction and operations usage.

4.12.2.1 Preferred Alternative

Potential impacts to utilities from the Preferred Alternative would not be significant. Use of these systems by the additional 121 personnel expected as part of the Proposed Action would not be significant compared to the current use of about 5,800 people. The Preferred Alternative for the radar test sites and target tower would not require a potable water supply, wastewater system, or solid waste disposal. The 12 people that would be stationed at this area on Powder Smoke Ridge would use the potable water supply, wastewater system, and dispose of solid waste at the current radar facility, Building 54. Additional use of utilities at Building

54 would not be significant. The Preferred Alternative would require four underground conduits in the shoulder of the roadway to extend power and communications to the radar sites. One conduit would be for power, one for fiber optic, one for a 52-pair copper communication line, and one as a spare. The target tower would also require four underground conduits to extend power and communications to the site (EwingCole 2007). Both the access road to the radar test sites and the target tower would require riprap and an 18-inch drainage pipe for storm water drainage controls. The Preferred Alternative for the warehouse retrofit would use an existing building and additional utility requirements would not be significant.

4.12.2.2 No Action Alternative

Under the No Action Alternative, there would be no changes to utilities at TYAD.

4.13 Hazardous and Toxic Substances

4.13.1 AFFECTED ENVIRONMENT

This section describes the existing conditions of hazardous and toxic substances at TYAD. The ROI for hazardous and toxic substances is the Proposed Action project area.

4.13.1.1 Use of Hazardous Materials

Hazardous materials currently used for the communications-electronics mission at TYAD include acids, alkali cleaners, solvents, paint products, paint strippers, and heavy metals.

4.13.1.2 Hazardous Waste Storage and Handling Areas

Hazardous waste generated at TYAD varies and includes acids, spent solvents, paint wastes, alkaline cleaners, paint strippers, spent grit blast, electroplating tank sludge, and sulfide sludge from the industrial wastewater pretreatment plant. In January 1993, the depot was issued a Part B Permit under the RCRA. The permit was renewed in 2003 and allows storage of hazardous waste for one year at Building 56. Maximum storage inventory for the facility is 672 drums (TYAD 2006a).

4.13.1.3 Hazardous Waste Disposal

Hazardous waste management and disposal are performed in accordance with TYADs Installation Hazardous Waste Management Plan (TYAD 2004b) and Pollution Prevention Plan (TYAD 2002). All hazardous waste (liquid and solid) generated on site is drummed and stored as noted above until removed by a contractor for off-site disposal at an approved hazardous waste disposal facility (TYAD 2006a).

4.13.1.4 Site Contamination and Cleanup

In August 1990, TYAD was added to the CERCLA National Priorities List. The selected location for the new radar test sites occurs within an area that was used as an artillery range during World Wars I and II, and thus, there is a potential that MEC are present at the site. The location occurs within a CERCLA Operable Unit known as Operable Unit #4, or Area of Concern #55. Under a Federal Facility Agreement between the EPA Region III and the Department of the Army, TYAD has conducted a CERCLA removal action at the site.

From October to December 1998, the Army conducted removal activities to clear approximately 20 acres of land within Operable Unit #4 for construction of the current radar testing facility, Building 54. The footprint of the radar testing facility, its surrounding fence line, and an area 100 feet around the facility footprint were cleared to a depth of 4 feet. All other areas within the construction site were cleared to a depth of 1 foot. This 20-acre cleared area is adjacent to the area proposed for the new radar test sites and is delineated on Figure 3-1 by the brown oval containing Building 54.

In August 2000, TYAD completed a CERCLA removal action at Operable Unit #4 that involved the installation of a barbed wire fence and warning signs around the perimeter of the entire MEC area. The purpose of this removal was to prevent trespassers and others from inadvertently coming into contact with any ordnance.

On September 2000, the Record of Decision for Operable Unit #4 was signed. The selected remedy in the Record of Decision (TYAD 2000) was institutional controls with the following components:

- Physical Controls
- Security Patrols/Monitoring
- MEC Support
- Public/Employee Education
- Proprietary Controls
- Periodic Reviews

4.13.1.5 Special Hazards

As described in Section 4.13.1.4, there is a moderate to high probability of encountering MEC at the proposed locations for the radar test sites (USACE 2008).

4.13.2 CONSEQUENCES

Potential impacts to hazardous and toxic substances are considered significant if the Proposed Action would:

- Result in noncompliance with applicable federal and state regulations;
- Increase the amounts of generated or procured hazardous materials beyond current permitted capacities or management capabilities; or
- Result in the spread or migration of existing environmental contamination.

4.13.2.1 Preferred Alternative

Potential impacts from hazardous and toxic substances from the Preferred Alternative would not be significant. While the radar is being tested, no hazardous or toxic substances would be associated with the radar test sites or target tower site and no hazardous waste would be generated. The potential impacts of any HAZMAT remediation work (small quantities of asbestos pipe insulation) done during the warehouse retrofit would be minor.

As provided by the Record of Decision for Operable Unit #4 (TYAD 2000), MEC support would be obtained from Explosive Ordnance Disposal-trained personnel to conduct a MEC removal action at the proposed radome and test pads construction site. The Army has prepared an Explosive Safety Submission Report to plan for this removal. It is currently anticipated that approximately 8 acres will require MEC removal to 2 feet with the remaining 24 acres cleared of surface MEC/debris for vegetation removal (USACE 2008). MEC removal would result in a beneficial impact by improving the environmental condition of this area and making it available for TYADs use.

Tree removal on Powder Smoke Ridge could result in a temporary increase in the migration of explosive residue in the soil via surface water runoff. However, as discussed in Section 4.7.2.1, surface water quality impacts from erosion during construction and tree clearing would be mitigated by using standard construction erosion control methods and by leaving felled trees in place.

In accordance with the provisions of the Record of Decision for Operable Unit #4, an employee education program would be implemented to ensure that personnel on Powder Smoke Ridge would know to stay within the MEC-cleared area of the radar test sites.

4.13.2.2 No Action Alternative

Under the No Action Alternative, there would be no changes to hazardous and toxic substances at TYAD.

4.14 Cumulative Effects Summary

Cumulative effects are those environmental impacts that result from the incremental effects of the Proposed Action when compounded by other past, present, or reasonably foreseeable future actions (40 CFR 1508.7).

CEQ regulations stipulate that the cumulative effects analysis within an EA consider the potential environmental impacts resulting from the “incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions” (40 CFR 1508.7). The scope must consider geographic and temporal overlaps among the Proposed Action and other actions. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals.

The scope of the cumulative effect analysis involves evaluating impacts to environmental resources by geographic extent of the effects and the time frame in which the effects would be expected to occur. Past, present, and reasonably foreseeable actions are identified first, followed by the cumulative effects that could result from these actions when combined with the Preferred Alternative.

4.14.1 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

Reasonably foreseeable actions at TYAD are described in the TYAD Master Plan EA developed for infrastructure improvements planned at TYAD for the timeframe of about January 2006 through January 2016. Fifteen zones of activities are planned as listed in Table 4-4 and shown in Figure 4-6.

Table 4-4. Construction Zones as Planned in the TYAD Master Plan EA.

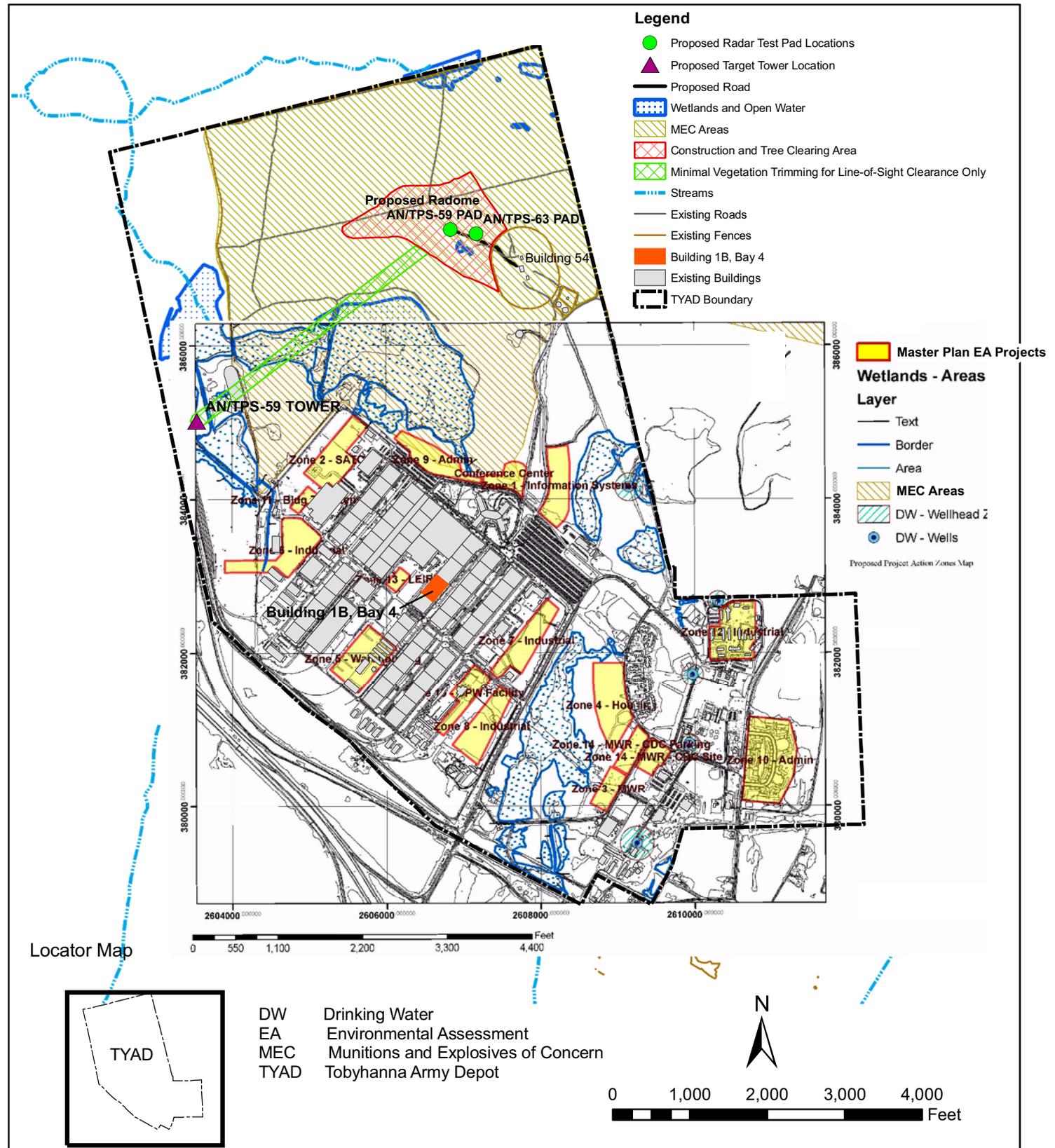
Construction Zone	Facility	Type of Construction	Facility Area (square feet)	Acreage
1	Information Systems Facility	New	31,000	6.5
2	Satellite Communications System	New	125,000	7.8
3	Morale, Welfare, and Recreation Activities	New	10,000	3
4	Family Housing Area	New	2,100-4,100 per townhome	9.4
5	Warehousing/South of Squire Street	New; requires demolition	40,000 per bay; 4 to 6 bays	8.4
6	Radar systems	New	125,000	7.4
7	Industrial facility	New	150,000	6.9
8	Industrial facility	New	150,000	7.0
9	Administrative facility	New	35,000	6.0
10	Administrative facility	New	35,000	15.1

Construction Zone	Facility	Type of Construction	Facility Area (square feet)	Acreage
11	Communication Security, Bldg 73	Addition to Bldg 73	60,000	1.3
12	Radar systems	New	125,000	9.0
13	Large end item repair facility	New	48,000	1.1
14	Morale, Welfare, and Recreation facilities (2)	New	10,000 each	5.4
15	Directorate of Public Works	Conversion of Bldg 22	16,000	4.8
Total				99.1

The Master Plan EA (TYAD 2006a) found that no significant impacts would occur from implementing the planned projects. Use of best management practices would ensure that only minimal impacts on topography, groundwater resources, vegetation, air quality, wetlands, and drainage would occur, and all permits and amendments will be applied for and adhered to in all zones. Taking into consideration all Master Plan projects, TYAD would be under the limits for the Title V and NPDES permits, and TYADs capacity for drinking water and electric services would not be exceeded; both services were under 50 percent capacity at the time of the EA.

In addition, TYAD will be receiving depot maintenance workload from Naval Weapons Station Seal Beach, California also under BRAC 2005 recommendations. The infrastructure improvements include erecting one radar tower to perform operational testing of radar systems; improvements and upgrades to Building 3, Bay 4; and construction of a small shed and a small building near the towers. Only minor tree clearance (less than 5 acres at two locations) and MEC removal would be required. No wetlands would be impacted.

No development or projects immediately off the depot were identified.



Prepared For:
U.S. Army Corps of Engineers, Mobile District

Figure 4-6
Master Planned Projects at Tobyhanna Army Depot



4.14.2 CUMULATIVE EFFECTS

Cumulative impact analysis typically considers the sum of the incremental effects of all past, present, and reasonably foreseeable actions on the environment, regardless of who undertakes the action. Cumulative effects can include impacts from the Proposed Action, impacts from other known local actions, on or off-site impacts, incremental effects over time from several related actions on a specific resource, and additive effects on multiple projects occurring simultaneously.

Environmental effects for all resources potentially affected by the Proposed Action considered in this EA, when combined with the effects of identified reasonably foreseeable projects, are discussed below. No past or present projects were identified for the cumulative impacts analysis.

4.14.2.1 Land Use

The Proposed Action would cause a small incremental impact to land use when combined with the future projects planned for TYAD discussed in Section 4.14.1. The cumulative impact for new construction and improvements, when considering all future projects planned for TYAD, would be about 137 acres, of which the Proposed Action of this EA would comprise about 23 percent of the total acreage for all planned projects. Of these 137 acres, approximately 40 acres of undeveloped forested terrain would be developed. The Proposed Action of this EA would contribute about 3 percent of the long-term impact of the approximate total of 40 acres that would be developed. The 40 acres of undeveloped forested terrain that would be developed comprises about 3 percent of the total acreage on TYAD. Because TYAD and the surrounding vicinity are comprised of thousands of acres of forested terrain, this long-term land-use change would not be significant.

4.14.2.2 Aesthetics and Visual Resources

Construction of the radar test sites and target tower would cause incremental impacts to aesthetics and visual resources when combined with the future projects planned for TYAD discussed in Section 4.14.1. Short-term impacts due to construction activities for each of these projects would not necessarily be cumulative because the projects would be taking place in various locations across the depot. Long-term cumulative impacts would include the removal of vegetation and creation of buildings, pavement, and appurtenant structures on approximately 137 acres on TYAD. However, the visual and aesthetic values would be comparable to existing values at TYAD and cumulative impacts to visual resources would not be significant.

4.14.2.3 Air Quality

If the construction periods overlapped, the Proposed Action would cause short-term incremental impacts to air quality when combined with the construction, demolition, or renovation aspects of the future projects listed in Section 4.14.1. Construction, renovation, or demolition may cause increased short-term external vehicle emissions from heavy equipment usage and particulate matter (dust) emissions from earthmoving activities and building demolition. These impacts would be temporary and would not be significant. The Proposed Action would not impact TYADs Title V permit.

4.14.2.4 Noise

The Proposed Action would cause short-term incremental impacts to noise when combined with the construction, demolition, or renovation aspects of the future projects listed in Section 4.14.1. Construction, renovation, or demolition may cause increased short-term noise; however, these impacts would be temporary, and cumulative effects to noise would not be significant.

4.14.2.5 Geology and Soils

The Proposed Action would cause short-term incremental impacts to soils when combined with the future projects listed in Section 4.14.1 through soil loss and erosion. However, with the use of best management practices, the cumulative effects would not be significant. The Proposed Action would also cause long-term incremental impacts when combined with future projects listed in Section 4.14.1 through the addition of less than 1 acre of impervious surfaces to TYAD. Because this addition is small, the cumulative effect of reducing precipitation infiltration would not be significant.

4.14.2.6 Water Resources

The Proposed Action would not cause long-term incremental impacts to water resources when combined with the future projects listed in Section 4.14.1. The Proposed Action would not impact groundwater quality and incremental impacts that would result in the reduction of groundwater recharge via soil infiltration would not be significant.

4.14.2.7 Biological Resources

The Proposed Action would cause short-term incremental impacts to biological resources when combined with the future projects listed in Section 4.14.1 as a result of construction-related soil erosion that could contribute excess sediment to waterways over a short term; the depot will continue to consult with the Monroe County Conservation District to determine methods to reduce such erosion. The Proposed Action could also cause long-term incremental

impacts when combined with the future projects by removing vegetation and causing the direct loss of plant and wildlife habitats at TYAD. However, these projects together would not substantially diminish the quality or quantity of regional habitat for plants or animals, nor would they substantially diminish regional or local populations of plant or animal species. Although the future projects listed in Section 4.14.1 for construction zones 1, 3, 4, 6 through 9, 11, and 14, will entail some vegetation removal, the trees that will be removed are of poor quality and age and consist mainly of developed vegetation that has been sown previously by the installation, so there should be no additive effects with the Proposed Action resulting in additional loss of quality habitat. Future construction zone 6 could result in impacts to a nearby wetland that would not be affected by the Proposed Action. Cumulative effects to biological resources would therefore not be significant.

4.14.2.8 Cultural Resources

Due to the low potential for discovery of cultural resources at TYAD, cumulative effects to cultural resources as a result of the Proposed Action would not be significant.

4.14.2.9 Socioeconomics

If the Proposed Action is implemented, there would be short-term incremental impacts when combined with the future projects listed in Section 4.14.1 due to the increase in the daytime population of TYAD from construction workers, but this incremental increase would only last for the duration of construction of this Proposed Action. There would also be a slight incremental long-term increase in the number of people working on the installation, although no significant long-term incremental impact to regional demographics would occur.

The Proposed Action could result in incremental beneficial impacts to the local economy for the duration of construction due to the expected increase in construction job opportunities and the associated temporary increase in secondary and tertiary services during construction, depending on the overlap in construction schedules for the Proposed Action and the future projects listed in Section 4.14.1. However, the Proposed Action would not result in significant incremental long-term changes in the number of employees at TYAD or in the ROI when combined with impacts from the future projects, nor would it significantly change the county tax base.

4.14.2.10 Transportation

The Proposed Action may cause short-term incremental impacts to transportation when combined with the future projects listed in Section 4.14.1. Incremental impacts would result from construction, renovation, and demolition activities from short-term increases in vehicular traffic. The increase in vehicular traffic would be caused by an increase in workers coming

onto the installation in the morning and leaving in the evening. Construction traffic would be routed through existing gates during normal business hours. Cumulative impacts to transportation would not be significant.

4.14.2.11 Utilities

The Proposed Action may cause short-term incremental impacts to utilities when combined with the future projects listed in Section 4.14.1. Incremental impacts would result from construction, renovation, and demolition solid waste. Solid waste produced by these projects would be shipped to a municipal landfill and would not be expected to cause adverse impacts to the landfill. Long-term incremental impacts from the Proposed Action, such as affecting TYADs NPDES permits or capacity for drinking water and electric services, are not expected. Cumulative impacts to utilities are not considered significant.

4.14.2.12 Hazardous and Toxic Substances

The Proposed Action may cause short-term incremental impacts from the use of hazardous and toxic substances during construction and renovation when combined with the future projects listed in Section 4.14.1. However, cumulative impacts from hazardous and toxic substances would not be significant.

4.15 Mitigation Summary

Mitigation measures are measures that are integral to an alternative to reduce impacts. No mitigation measures are required for the Preferred Alternative discussed in this EA because resulting impacts are not significant.

5.0 FINDINGS AND CONCLUSIONS

Direct, indirect, and cumulative impacts of the Preferred Alternative and the No Action Alternative have been considered. The Preferred Alternative allows the Army to make the best use of available land on TYAD to accommodate the very specific requirements of the workload being transferred from Barstow, California and would continue similar work and missions that currently exist on the depot. No significant adverse impacts were identified.

Therefore, the issuance of a FNSI is warranted, and preparation of an environmental impact statement is not required. Implementation of the No Action Alternative is not feasible because the BRAC actions are required by law to be implemented.

6.0 LIST OF PREPARERS

AGEISS Environmental, Inc.

Melissa Russ, Project Manager

Rich Huenefeld, Wildlife Biologist

Leroy Shaser, Environmental Scientist

Tonya Bartels, Technical Editor

7.0 DISTRIBUTION LIST

The following agencies will receive the EA, FNSI, and a letter requesting comments for possible impacts, if any, that would be associated with the project sites and surrounding areas during the public review phase.

FEDERAL AGENCIES

Mr. Dave Densmore, Supervisor
Pennsylvania Field Office
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, PA 16801

Ms. Lorie Baker, Remedial Project Manager
U.S. Environmental Protection Agency
Region III
ATTN: 3HS34
1650 Arch Street
Philadelphia, PA 19103-3029

STATE AGENCIES

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Northeast Region
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Sweet Valley, PA 18656

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Pennsylvania Game Commission
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Pennsylvania Department of Environmental Protection
Environmental Cleanup Program
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Ms. Jean Cutler, Director
State Historic Preservation Officer
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Keystone Commonwealth Building, 2nd Floor
400 North Street
Harrisburg, PA 17110

8.0 REFERENCES

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- Department of the Army. 2006, April. Base Realignment and Closure Guidelines for Compliance with the National Environmental Policy Act.
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USDA (U.S. Department of Agriculture). 1981. Soil Survey of Monroe County, Pennsylvania, Soil Conservation Service, in cooperation with the Pennsylvania State University, College of Agriculture, and the Pennsylvania Department of Environmental Resources, State Conservation Commission.

9.0 PERSONS CONSULTED

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Region III
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Environmental Cleanup Program
Northeast Regional Office
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Wilkes-Barre, PA 18711-0790

Ms. Jean Cutler, Director
State Historic Preservation Officer
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
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Mr. Douglas C. McLearen, Chief
Division of Archaeology and Protection
Pennsylvania Historical and Museum Commission
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Tony Gonyea, Faith Keeper
Onondaga nation of New York
Box 258C
Nedrow, NY 13120

Sheree Bonaparte, Tribal Historic Preservation Officer
St. Regis Mohawk Tribe
412 State Route 37
Akwesasne, NY 13655

*Environmental Assessment for the Construction of the
Radar Test Ranges and Target Tower and
Implementation of BRAC05 Recommendations at
Tobyhanna Army Depot, Pennsylvania*

APPENDIX A

CONSULTATION AND COORDINATION

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APPENDIX A. CONSULTATION AND COORDINATION

This appendix contains the following consultation and coordination letters:

- Letter sent to the State Historic Preservation Office dated November 8, 2007
- Letter sent to Emporia State University dated November 8, 2007 for coordination with the Delaware Tribe of Indians
- Letter sent to the Onondaga Nation dated November 8, 2007
- Letter sent to the St. Regis Mohawk Tribe dated November 8, 2007
- Letter sent to the Pennsylvania Department of Conservation and Natural Resources dated March 17, 2008
- Letter sent to the U.S. Fish and Wildlife Service dated March 17, 2008
- Letter sent to the Pennsylvania Game Commission dated March 17, 2008
- Letter sent to the Pennsylvania Fish & Boat Commission dated March 17, 2008
- Letter received from the Onondaga Nation dated November 19, 2007
- Letter received from the State Historic Preservation Office dated January 14, 2008
- Letter received from the Pennsylvania Department of Conservation and Natural Resources dated May 1, 2008
- Letter received from the U.S. Fish and Wildlife Service dated May 8, 2008
- Letter sent in reply to the Pennsylvania Department of Conservation and Natural Resources dated May 12, 2008



DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5086

November 8, 2007

Environmental Management Division

Mr. Douglas C. McLearen
Chief, Division of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093

Dear Mr. McLearen:

Tobyhanna Army Depot is proposing to build a radar tower and construct a test pad with a road on Powder Smoke Ridge. This project is in addition to a prior submission (ER 90-0625-089-TT). This construction is a result of the Base Realignment and Closure Act of 2005 and the Department of Defense transfer of functions to TYAD, Tobyhanna, Pennsylvania. As you are aware, we are required by the National Historic Preservation Act to obtain an evaluation from your office regarding the historical significance of installation facilities prior to beginning any major construction work. Enclosed you will find the completed required state documents for your review and determination. We believe that this site should not be considered historically significant, and that the construction of this tower be allowed to proceed. Enclosed are Forms 89A, 89B, and 89C (enclosure 1) and site plan (enclosure 2) for your review.

During our evaluation of this facility, we considered its historical significance at the state and local levels using the same four criteria listed in the attached documents. However, there is no information to indicate this site served as a focal point for any state or local historic event, or was associated with any individual or group that would be considered historically significant to the state or local area. As a result, we have concluded that this site does not qualify as being historically significant under any of the criteria offered by the National Register.

If you have any questions or comments, points of contact at this installation are Mr. Randy Didier, Chief, Environmental Management Division, (570) 895-7090 or e-mail: randall.didier@us.army.mil, and Mr. Matthew J. Argust, Environmental Protection Specialist, (570) 895-6594, or e-mail: matthew.j.argust@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosures





DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5086

November 8, 2007

Environmental Management Division

Department of Sociology and Anthropology
c/o Dr. Brice Obermeyer
Emporia State University
Roosevelt Hall, Rm 121
Emporia, KS 66801

Dear Dr. Obermeyer:

Tobyhanna Army Depot (TYAD) has completed a cultural resource investigation regarding construction of a radar tower and to construct a test pad with a road on Powder Smoke Ridge. This construction is a result of the Base Realignment and Closure Act of 2005 and the Department of Defense transfer of functions to TYAD, Tobyhanna, Pennsylvania.

The cultural resource investigation determined that the project area has little or no potential for containing intact, significant archaeological sites. Once funding is available, and with your review, we would like to proceed. If anything is discovered, notification will be sent to both your office that represents the Delaware Tribe of Indians, Oklahoma and the Pennsylvania State Historic Preservation Office.

For your review, a site plan is attached depicting the layout of the tower, test pad, road, and area to be cleared.

If you have any further questions or comments, points of contact at this installation are Mr. Randy Didier, Chief, Environmental Management Division, (570) 895-7090, or e-mail: randall.didier@us.army.mil, and Mr. Matthew J. Argust, Environmental Protection Specialist, (570) 895-6594, or e-mail: matthew.j.argust@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosure



DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18486-5086

November 8, 2007

Environmental Management Division

Onondaga Nation of New York
c/o Tony Gonyea, Faith Keeper
Box 258C
Nedrow, New York 13120

Dear Mr. Gonyea:

Tobyhanna Army Depot (TYAD) has completed a cultural resource investigation regarding construction of a radar tower and to construct a test pad with a road on Powder Smoke Ridge. This construction is a result of the Base Realignment and Closure Act of 2005 and the Department of Defense transfer of functions to TYAD, Tobyhanna, Pennsylvania.

The cultural resource investigation determined that the project area has little or no potential for containing intact, significant archaeological sites. Once funding is available, and with your review, we would like to proceed. If anything is discovered, notification will be sent to both the Onondaga Nation of New York and the Pennsylvania State Historic Preservation Office.

For your review, a site plan is attached depicting the layout of the tower, test pad, road, and area to be cleared.

If you have any further questions or comments, points of contact at this installation are Mr. Randy Didier, Chief, Environmental Management Division, (570) 895-7090 or e-mail: randall.didier@us.army.mil, and Mr. Matthew J. Argust, Environmental Protection Specialist, (570) 895-6594, or e-mail: matthew.j.argust@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosure



DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5086

November 8, 2007

Environmental Management Division

St. Regis Mohawk Tribe
c/o Sheree Bonaparte, Tribal Historic Preservation Officer
412 State Route 37
Akwesasne, New York 13655

Dear Ms. Bonaparte:

Tobyhanna Army Depot (TYAD) has completed a cultural resource investigation regarding construction of a radar tower and to construct a test pad with a road on Powder Smoke Ridge. This construction is a result of the Base Realignment and Closure Act of 2005 and the Department of Defense transfer of functions to TYAD, Tobyhanna, Pennsylvania.

The cultural resource investigation determined that the project area has little or no potential for containing intact, significant archaeological sites. Once funding is available, and with your review, we would like to proceed. If anything is discovered, notification will be sent to both the St. Regis Mohawk Tribe and the Pennsylvania State Historic Preservation Office.

For your review, a site plan is attached depicting the layout of the tower, test pad, road, and area to be cleared.

If you have any further questions or comments, points of contact at this installation are Mr. Randy Didier, Chief, Environmental Management Division, (570) 895-7090 or e-mail: randall.didier@us.army.mil, and Mr. Matthew J. Argust, Environmental Protection Specialist, (570) 895-6594, or e-mail: matthew.j.argust@us.army.mil.

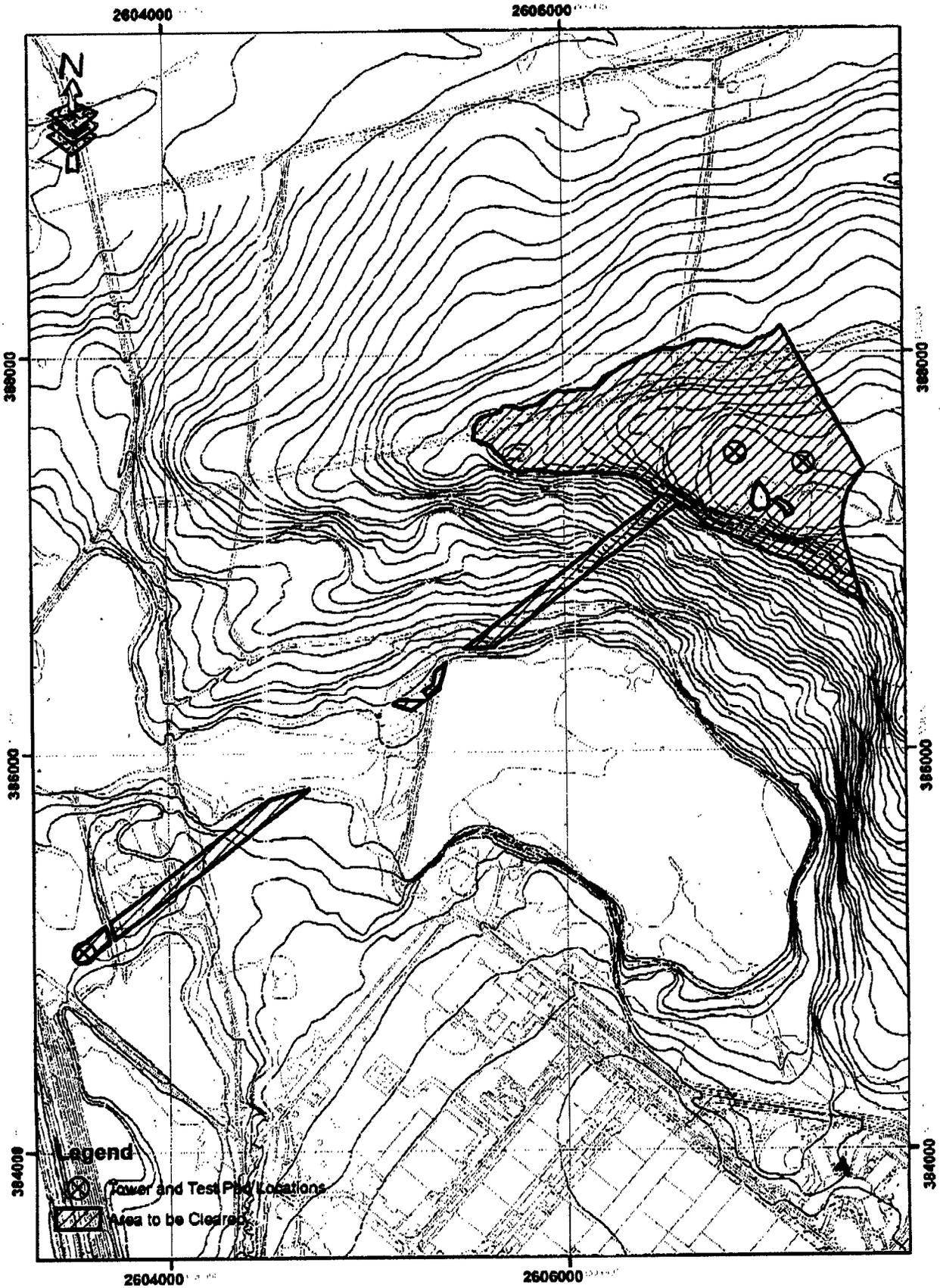
Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosure



BRAC - AN/TPS-59/63 - Site Development



Map created on 7 Nov 07



DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5086

AMSEL-TY-RK-E

Mr. Justin Newell, Environmental Review Specialist
Pennsylvania Department of Conservation and Natural Resources
Pennsylvania Natural Diversity Inventory
P.O. Box 8552
Harrisburg, PA 17105-8552

Dear Mr. Newell:

Tobyhanna Army Depot (TYAD) in Monroe County, Pennsylvania, in conjunction with the Mobile Army Corps of Engineers, is preparing an Environmental Assessment (EA) for the Base Realignment and Closure transfer of workload from Barstow, CA. The attached site plan is for the proposed construction of a far field radar test facility at TYAD. The EA will assess the existing environmental, cultural, and socio-economic conditions of TYAD and will address any potential environmental impacts of the Proposed Action.

TYAD believes that the impacts will be minimal, if any, to rare, threatened, or endangered species or habitats of concern.

To assist us in evaluating the EA please provide written comments regarding the site plan to this office within 21 days of the receipt of this letter. Specific issues of interest to TYAD include the presence of rare, threatened, or endangered species or critical habitats of concern.

If you have any questions or comments, points of contact are the undersigned at (570) 895-7090, or e-mail: randall.didier@us.army.mil, and Mr. Dana A. Latino, Environmental Engineer, (570) 895-8452, or e-mail: dana.latino@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosures





DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5088

MAR 17 2008

AMSEL-TY-RK-E

Mr. Dave Densmore, Supervisor
Pennsylvania Field Office
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, PA 16801

Dear Mr. Densmore:

Tobyhanna Army Depot (TYAD) in Monroe County, Pennsylvania, in conjunction with the Mobile Army Corps of Engineers, is preparing an Environmental Assessment (EA) for the Base Realignment and Closure transfer of workload from Barstow, CA. The attached site plan is for the proposed construction of a far field radar test facility at TYAD. The EA will assess the existing environmental, cultural, and socio-economic conditions of TYAD and will address any potential environmental impacts of the Proposed Action.

TYAD believes that the impacts will be minimal, if any, to rare, threatened, or endangered species or habitats of concern.

To assist us in evaluating the EA please provide written comments regarding the site plan to this office within 21 days of the receipt of this letter. Specific issues of interest to TYAD include the presence of rare, threatened, or endangered species or critical habitats of concern.

If you have any questions or comments, points of contact are the undersigned at (570) 895-7090, or e-mail: randall.didier@us.army.mil, and Mr. Dana A. Latino, Environmental Engineer, (570) 895-8452, or e-mail: dana.latino@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosure





DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5086

MAR 17 2008

AMSEL-TY-RK-E

Mr. William Capouillez
Chief, Environmental Planning and Land Management
Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, PA 17110-9797

Dear Mr. Capouillez:

Tobyhanna Army Depot (TYAD) in Monroe County, Pennsylvania, in conjunction with the Mobile Army Corps of Engineers, is preparing an Environmental Assessment (EA) for the Base Realignment and Closure transfer of workload from Barstow, CA. The attached site plan is for the proposed construction of a far field radar test facility at TYAD. The EA will assess the existing environmental, cultural, and socio-economic conditions of TYAD and will address any potential environmental impacts of the Proposed Action.

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If you have any questions or comments, points of contact are the undersigned at (570) 895-7090, or e-mail: randall.didier@us.army.mil, and Mr. Dana A. Latino, Environmental Engineer, (570) 895-8452, or e-mail: dana.latino@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosure





DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-3088

MAR 17 2008

AMSEL-TY-RK-E

Mr. Scott J. Christman
Conservation Officer
Pennsylvania Fish & Boat Commission
Northeast Region
P.O. Box 88
Sweet Valley, Pennsylvania 18656

Dear Mr. Christman:

Tobyhanna Army Depot (TYAD) in Monroe County, Pennsylvania, in conjunction with the Mobile Army Corps of Engineers, is preparing an Environmental Assessment (EA) for the Base Realignment and Closure transfer of workload from Barstow, CA. The attached site plan is for the proposed construction of a far field radar test facility at TYAD. The EA will assess the existing environmental, cultural, and socio-economic conditions of TYAD and will address any potential environmental impacts of the Proposed Action.

TYAD believes that the impacts will be minimal, if any, to rare, threatened, or endangered species or habitats of concern.

To assist TYAD in evaluating the EA please provide written comments regarding the site plan to this office within 21 days of the receipt of this letter. Specific issues of interest to TYAD include the presence of rare, threatened, or endangered species or critical habitats of concern.

If you have any questions or comments, points of contact are the undersigned at (570) 895-7090, or e-mail: randall.didier@us.army.mil, and Mr. Dana A. Latino, Environmental Engineer, (570) 895-8452, or e-mail: dana.latino@us.army.mil.

Sincerely,

Randy Didier
Chief, Environmental Management Division

Enclosure



Tony Gonyea
Onondaga Nation
RR #1, Route 11A
Box 319B
via Nedrow, NY 13120

November 19, 2007

Randy Didier
Department of the Army
Tobyhanna Army Depot
11 HAP Arnold Boulevard
Tobyhanna, PA 18466-5086

**REGARDING: TYAD Constructon of Radar Tower and Test Pad with road on Powder
Smoke Ridge.**

Dear Ms./Mr. Didier:

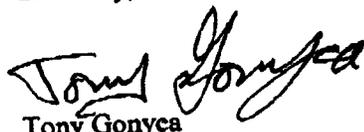
On behalf of the Onondaga Nation I have reviewed the information you have provided about the above project in your letter dated November 8, 2007. I thank you for this information.

Please be aware that the Onondaga Nation is a sovereign nation, and should listed as the Onondaga Nation in your records/correspondence, *NOT as the Onondaga Nation of New York.*

In the event that during project construction, any archeological resources or remains, including, without limitation, human remains, funerary objects, sacred objects, or objects of cultural patrimony are uncovered, please immediately stop construction and contact me at (315)952-3109, the Onondaga Nation's General Counsel Mr. Joseph Heath at (315)475-2559, and the New York State Historic Preservation Office at (518)237-8643.

If you have any comments or questions about this matter, please do not hesitate to let me know. Thank you for your help.

Sincerely,



Tony Gonyea
A Faithkeeper for the Onondaga Nation



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

January 14, 2008

Randy Didier
Department of the Army
Tobyhanna Army Depot
11 Hap Arnold Boulevard
Tobyhanna, PA 18466-5086

TO EXPEDITE REVIEW USE
ERP REFERENCE NUMBER

Re: File No. ER 90-0625-089-UU
DOD: Tobyhanna Army Depot
Proposed Radar Tower Building
Project & Test Pad Construction with
Road on Powder Smoke Ridge
Tobyhanna, Coolbaugh Twp.
Monroe Co.

Dear Mr. Didier:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

Based on our survey files, which include both archaeological sites and standing structures, there are no National Register eligible or listed historic or archaeological properties in the area of this proposed project. Therefore, your responsibility for consultation with the State Historic Preservation Office for this project is complete. Should you become aware, from any source, that historic or archaeological properties are located at or near the project site, please notify the Bureau for Historic Preservation at (717) 783-8946.

Sincerely,

Douglas C. McLearn, Chief
Division of Archaeology &
Protection

DCM/tmw



Pennsylvania Department of Conservation and Natural Resources

May 1, 2008

Bureau of Forestry

Randy Dider
 Tobyhanna Army Depot
 Environmental Management Division
 11 Hap Arnold Boulevard
 Tobyhanna, PA 18466

Pennsylvania Natural Diversity Inventory Review, PNDI Number	019593
Field Radar Test Facility at TYAD Tobyhanna Army Depot: Monroe County	

Dear Mr. Dider,

This responds to your request about a Pennsylvania Natural Diversity Inventory (PNDI) ER Tool "Potential Impact" or species of special concern impact review. We screened this project for potential impacts to species and resources of special concern under Department of Conservation and Natural Resources' responsibility, which includes plants, natural communities, terrestrial invertebrates and geologic features only.

NO PROJECT IMPACT ANTICIPATED

PNDI records indicate special concern species or resources are located in the vicinity of the project. However, based on the information submitted to us concerning the nature of the project, the immediate location, and our detailed resource information, we determined that no impact is likely. No further coordination with DCNR is needed for this project.

POTENTIAL PROJECT IMPACT

Based on our PNDI map review we determined potential impacts to species and/or resources of special concern. Therefore, further coordination with this office is necessary to avoid potential impacts to the above listed resources.

Please provide the following information so that a more accurate determination can be made:

A survey for the following should be conducted at the appropriate time of year by a qualified botanist:

Please see the attached chart for Species of Special Concern known near the project site. A survey for these species should be conducted when the plant is at its optimum phenology.

If the land type(s) does not exist on site, a survey will not be necessary. Please contact our office to inform us if the habitat is not present. If the habitat is present, please have the botanist fill out the field survey form located at <http://www.naturalheritage.state.pa.us/InternetFieldSurveyForm.pdf>. The botanist may contact us prior to the survey for additional information. All PA listed species should be searched for during the site visit and occurrences reported to our office. Survey results should be submitted to our office for review and comment. Mitigation measures and monitoring may be requested if species or communities of special concern are found on or adjacent to site. If you need a list of qualified surveyors, contact our office.

COMMENTS:

This response represents the most up-to-date summary of the PNDI data files and is good for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

To complete your review of state and federally-listed species of special concern (those NOT under DCNR's responsibility), please be sure the U.S. Fish and Wildlife Service, the PA Game Commission and the Fish and Boat Commission have been contacted regarding this project either directly or by performing a search with the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Emilee C. Boyer, Environmental Review Specialist FOR Chris Firestone, Plant Program Mgr
 DCNR/BOF/PNDI, PO Box 8552, Harrisburg, PA 17105 ~ Ph: 717-787-7067 ~ F: 717-772-0271 ~ cbover@state.pa.us

Stewardship

Partnership

Service

DCNR PNDI # 019596 for Tobyhanna Army Depot Field Radar Test Facility
 May 1, 2008

Genus & species	Common Name	Current Status	Proposed Status	Wetland Indicator Status	Habitat	Optimum phenology
<i>Carex disperma</i>	Soft-leaved sedge	PR	PR	FACW+	bogs and wet acidic woods	
<i>Carex paupercula</i>	Bog Sedge	PT	PR	OBL	sphagnum bogs and boggy woods	
<i>Elymus trachycaulis</i> (syn: <i>Andropogon trachycaulis</i>)	Slender Wheatgrass	N	TU	FACU	open woods, barrens, and banks	June - July
<i>Juncus dichotomus</i>	Forked rush	PE	PE	FACW-	moist, sandy old fields, open woods and gravel pits	8/ft. Summer
<i>Juncus filiformis</i>	Thread Rush	PR	PR	FACW	bogs and sandy shores	8/ft. Summer
<i>Leadum groenlandicum</i>	Common-labrador-tea	PR	PR		bogs and peaty wetlands	flowers June
<i>Myriophyllum farwellii</i>	Farwell's Water-milfoil	PE	PE	OBL	lakes & ponds	
<i>Symphoricarpon praecatum</i> (syn. <i>Aster praecatus</i>)	Veiny-lined Aster	N	TU	FACW	woods, fields, thickets, and roadsides	
<i>Utricularia inflata</i>	Inflated bladderwort	N	TU	OBL	native to Atlantic Coastal Plain, recently arrived in PA	
Acidic shrub swamp	Acidic Shrub Swamp					



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
315 South Allen Street, Suite 322
State College, Pennsylvania 16801-4850

May 8, 2008

Randy Didier
Tobyhanna Army Depot
Environmental Management Division
11 Hap Arnold Boulevard
Tobyhanna, PA 18466-5086

RE: USFWS Project #2008-1005

Dear Mr. Didier:

This responds to your letter of April 11, 2008, requesting information about federally listed and proposed endangered and threatened species within the area affected by the proposed Tobyhanna Army Depot radar test facility located in Monroe County, Pennsylvania. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to occur within the project impact area. Therefore, based on currently available information, no biological assessment or further consultation under the Endangered Species Act is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

Please note that a field survey may reveal previously undocumented populations of one or more species of concern within a project area. Refer to the enclosed list of *Federally Listed, Proposed, and Candidate Species in Pennsylvania* to determine which species may be found in your project area if suitable habitat is present. If surveys or further information reveals that a federally listed, proposed, or candidate species exists in your project area, contact the Fish and Wildlife Service immediately to discuss measures to avoid or minimize potential impacts to the species prior to initiating your project.

This determination is valid for one year from the date of this letter. If the proposed project has not been fully implemented prior to this, please access the PNDI Project Planning Environmental Review tool on the Pennsylvania Natural Heritage Program's website (www.naturalheritage.state.pa.us) to screen this project for potential impacts to species of special concern, including federally listed and proposed species. If this project is considered a "large project" as defined on the subject website, submit the project directly to our office for review, rather than using the online screening tool.

This response relates only to endangered or threatened species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

Please contact Pam Shellenberger of my staff at 814-234-4090 if you have any questions or require further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "David Densmore", followed by a long horizontal line extending to the right.

David Densmore
Supervisor

Enclosure

Federally Listed, Proposed, and Candidate Species in Pennsylvania

(revised April 28, 2008)

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status¹</u>	<u>Distribution (Counties and/or Watersheds)</u>
MAMMALS			
Indiana bat	<i>Myotis sodalis</i>	E	<u>Hibernacula</u> : Armstrong, Beaver, Blair, Centre, Fayette, Huntingdon, Lawrence, Luzerne, Mifflin and Somerset Co. <u>Maternity sites</u> : Adams, Bedford, Berks, Blair, Greene, and York Counties. Potential winter habitat state-wide in caves or abandoned mines. Potential summer habitat state-wide in forests or wooded areas.
BIRDS			
Piping plover	<i>Charadrius melodus</i>	E	Designated critical habitat on Presque Isle (Erie Co.). Migratory. No nesting in PA since 1950s, but recent colonization attempts at Presque Isle
REPTILES			
Bog turtle	<i>Clemmys (Glyptemys) muhlenbergii</i>	T	Adams, Berks, Bucks, Chester, Cumberland, Delaware, Franklin, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York Co. <i>Historically found in Crawford, Mercer and Philadelphia Co.</i>
Eastern massasauga rattlesnake	<i>Sistrurus catenatus catenatus</i>	C	Butler, Crawford, Mercer and Venango Co. <i>Historically found in Allegheny and Lawrence Co.</i>
MUSSELS			
Clubshell	<i>Pleuroberma clava</i>	E	French Creek and Allegheny River (and some tributaries) in Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co.; Shenango River (Mercer and Crawford Co.) <i>Has not been found recently in 13 streams of historical occurrence in Butler, Beaver, Fayette, Greene, Indiana, Lawrence, and Westmoreland Co.</i>
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	E	Delaware River (Pike and Wayne Co.) <i>Has not been found recently in streams of historical occurrence in the Delaware River watershed (Bucks, Carbon, Chester, Philadelphia Co.) or Susquehanna River watershed (Lancaster Co.)</i>
Northern riffleshell	<i>Epioblasma torulosa rangiana</i>	E	French Creek and Allegheny River (and some tributaries) in Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Co. <i>Has not been found recently in streams of historical occurrence, including: Shenango River (Lawrence Co.), Conewango Creek (Warren Co.)</i>

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u> ¹	<u>Distribution (Counties and/or Watersheds)</u>
MUSSELS (continued)			
Rayed bean	<i>Villosa fabalis</i>	C	French Creek and Allegheny River (Armstrong, Clarion, Crawford, Erie, Forest, Mercer, Venango, Warren Co.); Cussewago Creek (Crawford Co.) <i>Has not been found recently in 5 streams of historical occurrence in Armstrong, Lawrence, Mercer and Warren Co.</i>
Sheepnose	<i>Plethobasus cyphus</i>	C	Allegheny River (Forest and Venango Co.) <i>Has not been found recently in streams of historical occurrence, including: Allegheny River (Armstrong Co.), Beaver River (Lawrence Co.), Ohio River (Allegheny and Beaver Co.), and Monongahela River (Washington Co.)</i>
FISH			
Shortnose sturgeon ²	<i>Acipenser brevirostrum</i>	E	Delaware River and other Atlantic coastal waters
PLANTS			
Northeastern bulrush	<i>Scirpus ancistrochaetus</i>	E	Adams, Bedford, Blair, Cambria, Carbon, Centre, Clinton, Columbia, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Lackawanna, Lehigh, Lycoming, Mifflin, Monroe, Perry, Snyder, Tioga, and Union Co. <i>Historically found in Northampton Co.</i>
Small-whorled pogonia	<i>Isotria medeoloides</i>	T	Centre, Chester and Venango Co. <i>Historically found in Berks, Greene, Monroe, Montgomery and Philadelphia Co.</i>

¹ E = Endangered; T = Threatened; P = Proposed for listing; C = Candidate

² Shortnose sturgeon is under the jurisdiction of the National Marine Fisheries Service



DEPARTMENT OF THE ARMY
TOBYHANNA ARMY DEPOT
11 HAP ARNOLD BOULEVARD
TOBYHANNA PA 18466-5086

MAY 12 2008

Ms. Emilee C. Boyer, Environmental Review Specialist
Pennsylvania Department of Conservation and Natural Resources
Pennsylvania Natural Diversity Inventory
P.O. Box 8552
Harrisburg, Pennsylvania 17105-8552

Dear Ms. Boyer:

In response to our phone conversation of May 8, 2008 regarding clearing of approximately 32 acres at Tobyhanna Army Depot (PNDI #019593), enclosed are the following two surveys and an aerial site plan:

Inventory of Significant Plant and Animal Species and Natural Communities of the Tobyhanna Army Depot dated February 1994;

Planning Level Surveys for Flora, Fauna, and Vegetative Communities at Tobyhanna Army Depot dated May 2001;

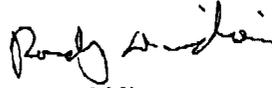
Aerial site plan showing the area that will be cleared in relation to the Special Species of Concern and wetlands.

The tree clearing will be accomplished in two stages. The first area that will be cleared is located on top of Powder Smoke Ridge. This area is scheduled for mid-June 2008 and will take approximately four weeks. The second area that will be cleared is the require line-of-site path that is going from Powder Smoke Ridge to a repeater tower. This clearing is scheduled for the beginning of August 2008 and will take approximately one week. The reason for two stages of clearing is to avoid any impacts to osprey during their nesting season. There is a nesting site near the line-of-site path.

The installation is minimizing impacts to the wetland areas by banning vehicle operation and by removing hardwood vegetation by hand. The majority of wetlands is open water and will not be touched. Once both areas are cleared, the maintenance will be accomplished by mechanical treatment in wetlands and chemical treatment in woodlands.

If you have any questions or comments, points of contact are the undersigned at (570) 895-7090, or e-mail: randall.didier@us.army.mil, and Mr. Dana A. Latino, Environmental Engineer, (570) 895-8452, or e-mail: dana.latino@us.army.mil.

Sincerely,



Randy Didier
Chief, Environmental Management Division

Enclosures

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*Environmental Assessment for the Construction of the
Radar Test Ranges and Target Tower and
Implementation of BRAC05 Recommendations at
Tobyhanna Army Depot, Pennsylvania*

APPENDIX B

ECONOMIC IMPACT FORECAST SYSTEM REPORT

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APPENDIX B. ECONOMIC IMPACT FORECAST SYSTEM REPORT

This appendix provides the Economic Impact Forecast System Report for the Tobyhanna Army Depot Proposed Action.

EIFS REPORT

PROJECT NAME

TYAD

STUDY AREA

42025 Carbon, PA
42069 Lackawanna, PA
42079 Luzerne, PA
42089 Monroe, PA
42127 Wayne, PA

FORECAST INPUT

Change In Local Expenditures	\$4,200,000
Change In Civilian Employment	121
Average Income of Affected Civilian	\$50,000
Percent Expected to Relocate	100
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Military Living On-post	0

FORECAST OUTPUT

Employment Multiplier	3.66	
Income Multiplier	3.66	
Sales Volume - Direct	\$9,064,200	
Sales Volume - Induced	\$24,110,770	
Sales Volume - Total	\$33,174,970	0.13%
Income - Direct	\$6,860,093	
Income - Induced)	\$4,650,468	
Income - Total(place of work)	\$11,510,560	0.07%
Employment - Direct	169	
Employment - Induced	128	
Employment - Total	297	0.08%
Local Population	301	
Local Off-base Population	301	0.04%

RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	12.23 %	9.76 %	2.67 %	0.79 %
Negative RTV	-7.68 %	-5 %	-2.77 %	-0.4 %

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