



Demolition of Building 11A at the Henry A. Wallace Beltsville Agricultural Research Center Beltsville, Maryland

March 2021

**ENVIRONMENTAL ASSESSMENT
AND DRAFT FINDING OF NO SIGNIFICANT IMPACT**

**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICES
DEMOLITION OF BUILDING 11A AT THE HENRY A. WALLACE
BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND**

I. Name of the Action

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) is proposing the demolition of Building 11A at the Beltsville Agricultural Research Center (BARC). The purpose of the Proposed Action is to reduce long-term operational and maintenance costs and reduce BARC's impact on the Chesapeake Bay Watershed. The 2015 *Reduce the Footprint Policy* (Executive Office of the President, Office of Management and Budget, 2015) mandates the aggressive disposal of surplus properties held by the Federal Government, make more efficient use of its real property assets, and reduce the total square footage of domestic office and warehouse inventory. This policy also requires each agency to develop a Real Property Efficiency Plan describing each agency's strategic and tactical approach to managing its real property. The USDA-ARS's *Real Property Efficiency Plan for Fiscal Year 2019-2023* (USDA-ARS, 2018b) provides for the annual reduction of office and warehouse/storage square footage by one percent per fiscal year. USDA-ARS would also reduce its operational costs through compliance with BARC's municipal separate storm sewer system (MS4) permit goal of achieving a 20-percent reduction of impervious surface area by 2025. Achieving this goal would support the potential redevelopment of certain BARC areas making the facility more sustainable and supportive of new and ongoing research opportunities.

II. Description of the Action

A. Proposed Action

The Proposed Action would demolish Building 11A in its entirety, including the building envelope, building footings and foundation, support systems (e.g., mechanical, electrical), site utilities servicing the building, concrete pads, and associated exterior concrete walkways and paved areas. All materials, equipment, and demolition debris would be removed from the site and properly disposed of according to material type and applicable State and Federal regulations. Building 11A is vacant and in various states of disrepair. In compliance with the U.S. Environmental Protection Agency (EPA) *Technical Guidance on Implementing Stormwater Runoff Requirements for Federal Projects* under Section 438 of the Energy Independence and Security Act (EISA), the building site would be returned to pre-development conditions, where feasible, resembling natural topography to promote natural surface drainage patterns. Due to the age of the overall BARC campus and Building 11A, defining pre-development conditions and achieving a return to them following demolition may be difficult. Recontouring of the site once the building is removed to achieve positive drainage is dependent upon the proximity of the site to occupied and active buildings and the maintenance of live utility connections, as well as access routes to those occupied buildings. The site would be stabilized with mulch and either seed mixes or plantings consistent with Maryland Department of the Environment and Maryland's Department of Natural Resources standard specifications to minimize surface erosion while USDA-ARS determines if the site would be redeveloped or allowed to return to native vegetative cover.

B. Alternatives

Alternatives considered included No Action, Repair or Rehabilitation of Building 11A for Continued or Other Use, and Transfer of the Building for Use as Facilities to Assist the Homeless were eliminated because they do not satisfy the identified need and purpose. Findings and conclusions of the No Action Alternative and the alternatives eliminated are provided in the Environmental Assessment (EA).

Although the No Action Alternative would avoid potential Proposed Action-related environmental effects, it has the potential to adversely impact the Chesapeake Bay Watershed through long-term impacts on localized surface and groundwater quality as contaminants from the building may be carried to receiving waters by rain and snow. It would also not satisfy the need to reduce the facility footprint and associated operational and maintenance costs, reduce the impervious area of the facility, reduce human health and safety and facility security risks, nor support the potential redevelopment of certain BARC areas making the facility more sustainable and supportive of new and ongoing research opportunities.

III. Anticipated Environmental Effects

Potential environmental effects of the demolition of Building 11A, including demolition-related activities such as mobilization, waste removal and disposal, and recontouring of the building site along with the avoidance, minimization, and mitigation measures proposed are described below.

Using the No Action Alternative as the baseline for assessing potential effects from the Proposed Action, the following potential issues and concerns have been identified:

- Temporary and localized, but not significant, adverse effects on soils are expected due to the amount of land disturbance required to remove the building. These effects will be further minimized through the implementation of appropriate best management practices (BMPs) to prevent and manage soil erosion and stormwater flows from demolition and land contouring activities.
- Temporary and localized, but not significant, effects to a wetland feature mapped by the National Wetland Inventory associated with Little Paint Branch. The appropriate BMPs would be implemented to prevent and manage any potential fill activities.
- Temporary and localized, but not significant, effects on air quality are expected from heavy equipment emissions and increases in fugitive dust and airborne particulates from construction and demolition-related activities.
- Adverse, but not significant, impacts to biological resources (vegetation) are expected as a result of the Proposed Action where shrub or tree clearing is required and will be minimized to facilitate building demolition and site contouring. However, any adverse effect would be mitigated through site restoration.
- Adverse, but not significant, effects to the National Register of Historic Places (NRHP)-eligible resource (Building 11A, MIHP #PG: 61-87); and to the NRHP-eligible BARC Historic District (PG:62-14) to which it contributes. As per the National Historic Preservation Act (NHPA), USDA-ARS is required to continue consultation to resolve adverse effects to Building 11A and the associated district. USDA-ARS will continue consultation with Maryland Historical Trust (MHT), identify and involve other potential consulting parties, and notify the Advisory Council on Historic Preservation (ACHP) to determine if they would like to participate in the consultation process for development of a Section 106 Programmatic Agreement (PA) for related actions at BARC.

- Temporary and localized, but not significant, increases in ambient noise are expected during demolition-related activities.
- Utilities services would not be interrupted to active buildings during demolition.
- Temporary and localized, but not significant, increases in solid wastes would be generated during demolition.
- Local roadways and parking are adequate to support movement and staging of construction equipment and materials to the project site and only minor and temporary impact to traffic accessing BARC would occur during demolition and waste removal.
- Adverse, but not significant, effects on hazardous materials would occur due to their presence within the building and the need to categorize, remove, and dispose of each type of material in accordance with applicable Federal, State, and local regulations.

Using the No Action Alternative as the baseline for assessing potential effects, the following findings have been identified and are not expected to be affected by the Proposed Action:

- Little Paint Branch and its floodplain are not expected to be affected by the Proposed Action because they are located relatively distant from the project site and the implementation of appropriate BMPs would protect against sedimentation, leaks, and spills. The restoration of the site to preexisting conditions would improve water quality and reduce surface water runoff.
- The threatened northern long-eared bat is not expected to be affected by the Proposed Action. Suitable habitat may be present in the wooded areas adjacent to the project site; however, the site will be surveyed for potential northern long-eared bat habitat prior to demolition and seasonal clearing restrictions would be adhered to if required through coordination with the US Fish and Wildlife Service.
- Land use impacts would be expected to be consistent with existing and future land use planning and increase meadow or forest and reduce mowed grass, where possible. Site restoration will be determined on an as-needed basis; however, restoration to meadow or forest is preferred where feasible and would receive the maximum stormwater credit because this habitat is the most beneficial to the Chesapeake Bay Watershed.
- Socioeconomics within the vicinity of the BARC campus are not expected to be affected by the Proposed Action. Overall impacts to socioeconomics and environmental justice would be negligible and further analysis has been dismissed.
- The Proposed Action is not expected to result in significant cumulative effects when considered along with other, known projects anticipated at the BARC Facility.

Although no significant impacts to the environment are anticipated, the USDA-ARS would ensure the following mitigation measures are implemented to minimize potential effects. These measures would be implemented through provisions stipulated in demolition/construction contracts. The potentially adverse environmental impacts related to the construction, operation, and dismantling of the Proposed Action could be minimized, mitigated, and controlled to acceptable levels by implementation of the following measures:

- USDA-ARS will require the contractor to use dust-abatement measures, such as wetting, mulching, or seeding exposed areas, where appropriate, to address any air quality concerns.
- USDA-ARS will require the contractor to mitigate vehicle emissions impacts as much as possible by prohibiting truck idling.
- USDA-ARS will require the contractor to provide lay down (i.e., temporary material storage) areas for demolition equipment and materials within existing cleared and paved areas to minimize disturbance to existing land and vegetation.
- USDA-ARS will require contractor compliance with erosion and sediment control measures related to stabilization of disturbed areas.
- USDA-ARS will require the contractor to provide and maintain silt fencing, or other suitable BMPs, to be placed around demolition areas to mitigate erosion and sediment runoff.
- USDA-ARS will require the contractor to implement BMPs for erosion/sediment control and stormwater management to minimize impacts to the existing stormwater collection system, wetlands, and other environmental resources.
- USDA-ARS will require all necessary measures be taken by the contractor to prevent, control, and mitigate the release of oils, trash, debris, and other pollutants to air, water, and land.
- USDA-ARS will require contractors to safely handle and dispose of solid and hazardous waste in accordance with applicable local, Federal and State regulations. All hazardous materials would be removed and disposed of offsite at an approved Treatment, Storage, and Disposal Facility (TSDF).
- USDA-ARS will require contractors to provide appropriate health and safety training, precautions, and other protection for their workers.
- USDA-ARS will require contractors to recycle or reuse materials to the greatest extent possible, and to dispose of construction debris in accordance with local, State, and Federal waste disposal regulations.
- USDA-ARS-ARS will require the contractor to stop work and allow USDA-ARS to consult with MHT if unexpected cultural resources are found during construction activities.
- USDA-ARS will require that the transportation of demolition equipment and materials over local roads be scheduled to occur after peak traffic periods, whenever possible.
- USDA-ARS will require contractors to minimize demolition-related noise impacts by limiting demolition-related activities to the hours between 7:00 a.m. and 5:00 p.m. on weekdays.
- USDA-ARS will require that, upon commencement, demolition be executed expeditiously to minimize the period of disturbance to the affected environment.

Consideration of the activities involved in the demolition and recontouring of the building site at BARC would have no significant impacts on the quality of the human environment or on local natural resources. As a result of this Draft EA, it is determined that an EIS is not required for the Proposed Action. In conclusion, a Finding of No Significant Impact (FONSI) is appropriate for the Proposed Action.

IV. Public Involvement

The EA and Draft Finding of No Significant Impact (FONSI) were made available for a 30-day public review timeframe from April 1, 2021 through April 30, 2021. The notices were published in the *Prince George's Post* and *Greenbelt News Review*. The EA and Draft FONSI were made available for public review at the following locations: BARC, 10300 Baltimore Avenue, Building 003, Room 009, Beltsville, MD 20705; College Park Community Library, 9704 Rhode Island Avenue, College Park, MD 20740; and Beltsville Branch Library, 4319 Sellman Road, Beltsville, MD 20705. These documents are also available on the following ARS websites: <https://www.nal.usda.gov/> and <https://www.ars.usda.gov/northeast-area/> to notify interested persons and organizations of the availability of the EA and FONSI for public review and comment.

Affidavits of publication and comments received on the EA/Draft FONSI will be provided in the Final EA. **The deadline for public comment on this Proposed Action is April 30, 2021.**

V. Facts and Conclusions

Implementation of the mitigation measures discussed above and in the respective sections of the Draft EA would reduce the potential effects of the Proposed Action, resulting in no significant adverse impacts to the environment. An Environmental Impact Statement is, therefore, not required.

Dr. Charles Onwulata
Northeast Area Director, ARS
U.S. Department of Agriculture

Date:

EXECUTIVE SUMMARY

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) is proposing to remove Building 11A, a surplus building at the Henry A. Wallace Beltsville Agricultural Research Center (BARC) in Beltsville, Prince George's County, Maryland. The purpose of the Proposed Action is to reduce long-term operational and maintenance costs and reduce BARC's impact on the Chesapeake Bay Watershed. The 2015 *Reduce the Footprint Policy* (Executive Office of the President, Office of Management and Budget, 2015) mandates 1) the aggressive disposal of surplus properties held by the Federal Government, 2) more efficient use of its real property assets, and 3) a reduction in the total square footage of domestic office and warehouse inventory. This policy also requires each agency to develop a Real Property Efficiency Plan describing each agency's strategic and tactical approach to managing its real property. The USDA's *Real Property Efficiency Plan for Fiscal Year 2019-2023* (USDA, 2018b) provides for the annual reduction of office and warehouse/storage square footage by 1 percent per fiscal year. The USDA-ARS will also reduce its operational costs through compliance with BARC's municipal separate storm sewer system (MS4) permit goal of achieving a 20-percent reduction of impervious surface area by 2025. Achieving this goal would support the potential redevelopment of certain BARC areas making the facility more sustainable and supportive of new and ongoing research opportunities.

This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) as amended (42 United States Code [U.S.C.] § 4321, et seq.); Executive Orders 11514, 12144, and 13807; 34 FR 4247, as amended by Executive Order 119911; 42 FR 26927; 44 FR 11957; 5 U.S.C. 301; and 40 Code of Federal Regulations (CFR) 1500-1508 (51 FR 34191, 1986). The purpose of a NEPA EA is to assess whether the Proposed Action would pose a potential significant impact on the environment and to determine whether an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) is required for the Proposed Action. The specific needs and purpose of the Proposed Action evaluated in this EA are described in Sections 1.2–1.5.

The purpose of this EA is to inform decision makers and the public of the likely environmental consequences of the action proposed at BARC. This EA identifies, documents, and evaluates the potential effects of the demolition of Building 11A which would be removed in its entirety, including the building envelope, building footings and foundations, support systems (e.g., mechanical, electrical), site utilities servicing the building, concrete pads, and associated exterior concrete walkways. The concrete parking area and access drive would remain intact. The USDA-ARS considers this building as not mission critical and has no further need for it. After Building 11A is removed, the majority of the site would be returned to as close to pre-development conditions as feasible. However, the site may be reused for future USDA research or redeveloped by other Federal entities. Because the scope, extent, and timing of potential future redevelopment of this area is not defined, the effects of any site redevelopment is not assessed in this EA.

The Proposed Action and No Action alternatives are evaluated to determine the direct, indirect, and cumulative effects or changes that may occur on both people and the environment because of the proposed improvements. Other alternatives involving the Repair or Rehabilitation of the Building for Continued or Other Use, and Transfer of the Building for Use as Facilities to Assist the Homeless were reviewed and eliminated because they do not satisfy the identified needs and purpose.

The direct and indirect effects of the Proposed Action would be temporary and short-term and associated with demolition-related activities including restorative actions at the building site to provide positive drainage. Building 11A has been identified as a contributing feature of the BARC Historic District, recorded in the Maryland Inventory of Historic Places as PG:62-14 and eligible for listing in the National Register of Historic Places (NRHP). The Maryland Historical Trust (MHT) concurred with this

recommendation and awaits further consultation with USDA and other consulting parties to complete a Section 106 Programmatic Agreement for the BARC demolition initiative, as planning proceeds.

The Proposed Action would also not result in significant cumulative effects when considered with the effects of past, present, and reasonably foreseeable actions at BARC and in the vicinity of BARC.

Careful design, the use of good engineering and best management practices, and the implementation of certain operational procedures would avoid, minimize, or mitigate these minor and moderate potential adverse effects presented in the EA to a less than significant level. Implementation of the mitigation measures described in the EA would reduce the potential effects of the Proposed Action, resulting in no significant adverse impacts to the environment. Therefore, preparation of an Environmental Impact Statement is not required.

TABLE OF CONTENTS

		<u>Page No.</u>
EXECUTIVE SUMMARY	.....	I
1.0 PURPOSE AND NEED FOR ACTION	.....	1-1
1.1 THE ENVIRONMENTAL ASSESSMENT		1-1
1.2 BELTSVILLE AGRICULTURAL RESEARCH CENTER FACILITY DESCRIPTION AND VICINITY		1-2
1.3 PURPOSE		1-4
1.4 BARC NEEDS		1-4
1.5 DECISIONS REQUIRED		1-5
2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES	.....	2-1
2.1 PROPOSED ACTION ALTERNATIVE		2-1
2.2 NO ACTION ALTERNATIVE		2-1
2.3 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION		2-1
2.3.1 Repair or Rehabilitation of the Building for Continued or Other Use	.....	2-1
2.3.2 Transfer of Buildings for Use as Facilities to Assist the Homeless	.....	2-2
3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	.....	3-3
3.1 GEOLOGY, TOPOGRAPHY, AND SOILS		3-3
3.1.1 Affected Environment – Geology, Topography, and Soils	.....	3-3
3.1.2 Environmental Consequences – Geology, Topography, and Soils	.....	3-7
3.2 WATER RESOURCES		3-7
3.2.1 Affected Environment – Water Resources	.....	3-7
3.2.2 Environmental Consequences – Water Resources	.....	3-10
3.3 BIOLOGICAL RESOURCES		3-11
3.3.1 Affected Environment – Biological Resources	.....	3-11
3.3.2 Environmental Consequences – Biological Resources	.....	3-13
3.4 AIR QUALITY		3-14
3.4.1 Affected Environment – Air Quality	.....	3-14
3.4.2 Environmental Consequences - Air Quality	.....	3-16
3.5 NOISE		3-17
3.5.1 Affected Environment – Noise	.....	3-17
3.5.2 Environmental Consequences – Noise	.....	3-18
3.6 UTILITIES AND INFRASTRUCTURE		3-18
3.6.1 Affected Environment – Utilities and Infrastructure	.....	3-18
3.6.2 Environmental Consequences – Utilities and Infrastructure	.....	3-21
3.7 TRANSPORTATION		3-22
3.7.1 Affected Environment – Transportation	.....	3-22
3.7.2 Environmental Consequences – Transportation	.....	3-24
3.8 CULTURAL RESOURCES		3-24
3.8.1 Affected Environment – Cultural Resources	.....	3-25
3.8.2 Environmental Consequences – Cultural Resources	.....	3-27
3.9 LAND USE		3-28

3.9.1	Public and Federal Lands	3-30
3.9.2	Affected Environment – Land Use.....	3-32
3.9.3	Environmental Consequences – Land Use.....	3-32
3.10	SOCIOECONOMIC RESOURCES	3-32
3.10.1	Affected Environment – Socioeconomic Resources.....	3-32
3.10.2	Environmental Consequences – Socioeconomic Resources.....	3-33
3.11	HUMAN HEALTH AND SAFETY	3-33
3.11.1	Affected Environment – Human Health and Safety	3-33
3.11.2	Environmental Consequences – Human Health and Safety	3-34
4.0	CUMULATIVE IMPACTS, AGENCY COORDINATION, AND SUMMARY OF IMPACTS	4-1
4.1	CUMULATIVE IMPACTS	4-1
4.1.1	Proposed Action Alternative	4-2
4.1.2	No Action Alternative	4-4
4.2	AGENCY COORDINATION	4-4
5.0	RECOMMENDATIONS AND MITIGATION	5-5
5.1	RECOMMENDATIONS	5-5
5.2	MITIGATION	5-6
6.0	REFERENCES	6-1
7.0	LIST OF REVIEWERS AND PREPARERS	7-1
8.0	ACRONYMS AND ABBREVIATIONS	8-1
APPENDIX A –	BUILDING 11A PHOTOGRAPHS	
APPENDIX B –	AGENCY COORDINATION-SECTION 106	
APPENDIX C –	PROTECTED SPECIES LISTS	
APPENDIX D –	AGENCY COORDINATION-GENERAL	

LIST OF TABLES

	<u>Page No.</u>
Table 3-1: Mapped Soil Units, Runoff, Water Storage, Farmland Classification, and Erodibility Underlying Building 11A.....	3-4
Table 3-2: Summary of NWI Wetlands by Type on the North Farm.....	3-10
Table 3-3: Federally Listed Species for Prince George’s County, Maryland.....	3-12
Table 3-4: General Conformity <i>De Minimis</i> Thresholds ^(a)	3-15
Table 3-5: Prince George’s County Noise Standards.....	3-17
Table 3-6: BARC Facility Land Cover.....	3-28

LIST OF FIGURES

	<u>Page No.</u>
Figure 1-1: Location of Building 11A, Beltsville Agricultural Resource Center.....	1-3
Figure 3-1: Building 11A NRCS Prime Farmland and Farmland of Statewide Importance.....	3-5
Figure 3-2: Building 11A NRCS Soil Erosion Hazard.....	3-6
Figure 3-3: Building 11A Surface Water Resources: Streams, Wetlands, and 100-Year Floodplains.....	3-9
Figure 3-4: Transportation Infrastructure Servicing the North Farm and Building 11.....	3-23
Figure 3-5: BARC Historic District.....	3-26
Figure 3-6: Building 11A Land Cover.....	3-29
Figure 3-7: Federal Lands and Recreational Facilities.....	3-31

1.0 PURPOSE AND NEED FOR ACTION

1.1 The Environmental Assessment

This Environmental Assessment (EA) was prepared for the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) by Louviere, Stratton & Yokel, LLC (LSY) and Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell), under Contract No. AG-32SC-D-17-0296. This EA was prepared in accordance with the National Environmental Policy Act (NEPA), as amended (42 United States Code [U.S.C.] § 4321, et seq.); Executive Orders 11514, 12144, and 13807; 34 Federal Register (FR) 4247, as amended by Executive Order 119911; 42 FR 26927; 44 FR 11957; 5 U.S.C. 301; and 40 Code of Federal Regulations (CFR) 1500-1508 (51 FR 34191, 1986). The purpose of a NEPA EA is to assess whether the Proposed Action would pose a potential significant impact on the environment and to determine whether an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) is required for the Proposed Action. The specific needs and purpose of the Proposed Action evaluated in this EA are described in Sections 1.3–1.5.

The purpose of this EA is to inform decision makers and the public of the likely environmental consequences of the action proposed at the Henry A. Wallace Beltsville Agricultural Research Center (BARC). This EA identifies, documents, and evaluates the potential effects of the demolition of Building 11A which would be removed in its entirety, including the building envelope, building footings and foundations, support systems (e.g., mechanical, electrical), site utilities servicing the building, concrete pads, and associated exterior concrete walkways and paved areas. The USDA-ARS considers this building as not mission critical and has no further need for it. After Building 11A is removed, the majority of the site would be returned to as close to pre-development conditions as feasible. However, the site may be reused for future USDA research or redeveloped by other Federal entities. Because the scope, extent, and timing of potential future redevelopment of this area is not defined, the effects of any site redevelopment is not assessed in this EA.

The Proposed Action and No Action alternatives are evaluated to determine the direct, indirect, and cumulative effects or changes that may occur to both people and the environment because of the proposed improvements. Effects can be ecological, aesthetic, historical, cultural, economic, social, or health related. The following are the areas of interest evaluated in this EA:

- Geology, Topography, and Soils
- Water Resources and Wetlands
- Biological Resources
- Air Quality
- Noise
- Land Use
- Cultural Resources
- Visual Resources
- Utilities and Infrastructure
- Transportation
- Waste Management
- Human Health and Safety
- Socioeconomics
- Environmental Justice and Protection of Children

An interdisciplinary team has identified the features and environment present on the BARC campus and associated with the proposed project site and has assessed the potential effects of the Proposed Action and No Action alternatives. The proposed project site includes the building proposed for demolition and a reasonable area around it that would be cleared and regraded. Both beneficial and adverse effects may be associated with the Proposed Action and No Action alternatives as described in Chapters 3.0 and 4.0 of this EA. The effect can be direct (those caused by the action that occur at the same time and place), indirect (those caused by the action that take place later in time or farther removed in distance), or cumulative (the incremental impacts of the project when combined with past, present, and reasonably foreseeable future activities).

The study area described in this EA is associated with Building 11A and shown on Figure 1-1. The area of direct effects includes the area around the building previously disturbed by its construction and a buffer area anticipated to allow for recontouring of the building site to achieve positive drainage and, as feasible, return the site to as close to pre-development conditions as feasible.

Building 11A has been identified as a contributing feature of the BARC Historic District, recorded in the Maryland Inventory of Historic Places as PG:62-14 and the MHT has concurred that Building 11A is eligible for listing in the NRHP (see Section 3.8).

In developing the Proposed Action, USDA-ARS considered the following factors:

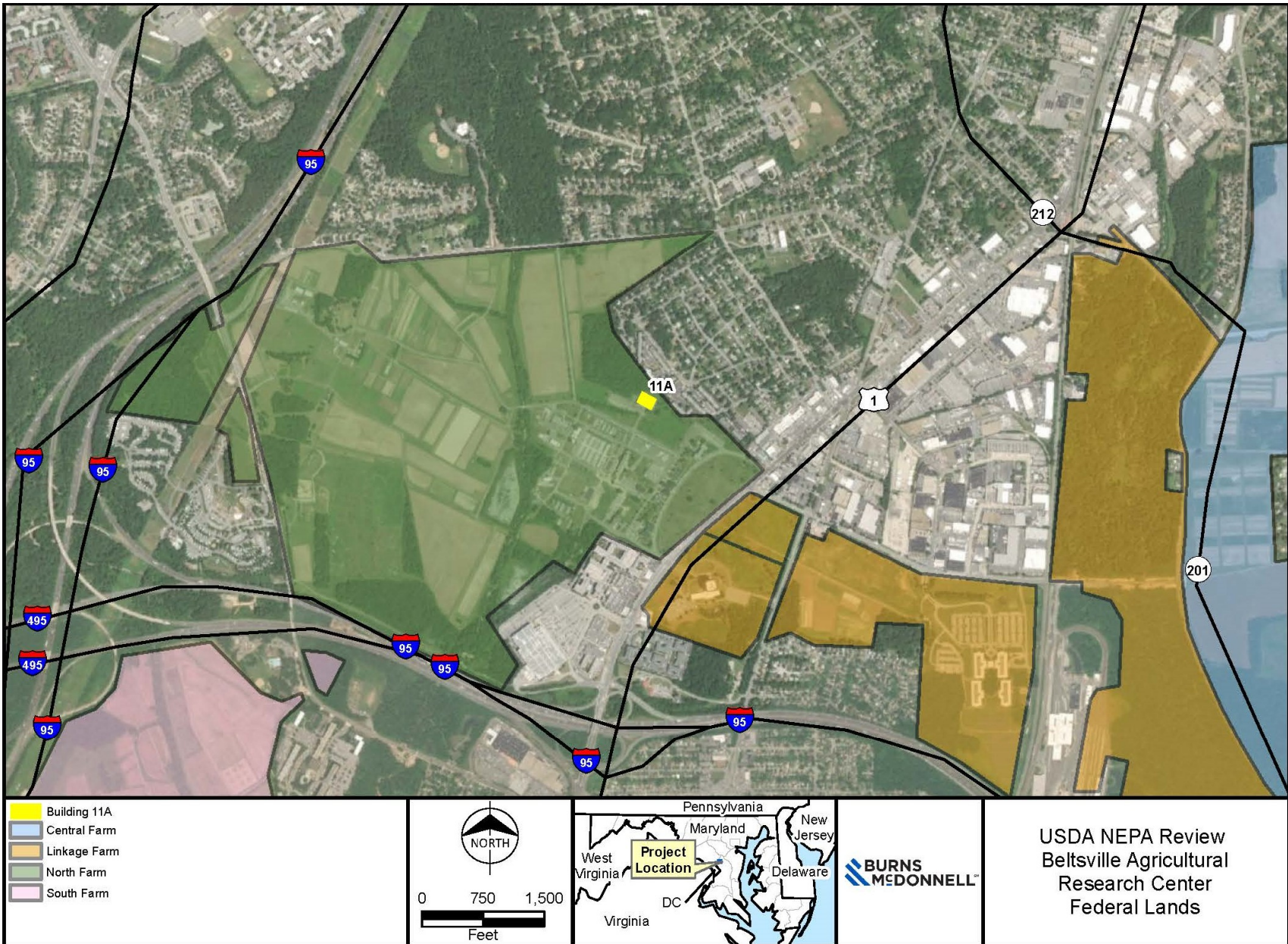
- maximizing use of existing facility resources
- use and potential re-use of the existing building and supporting infrastructure
- removal of physical, human health/safety, and security hazards
- resource limitations (limited capital and operating funds)
- sustainability

The opportunity for public input is an important aspect of NEPA. Public and agency scoping for a larger facility-wide demolition program at BARC (which would include the proposed demolition of Building 11A) was conducted in September-October 2019. Letters describing the Proposed Action and requesting input were sent to numerous Federal, State, and local agencies and elected officials, and public notices were published in local newspapers. No specific issues, concerns, or mitigation requirements regarding the proposed demolition activities were received from agencies or the public during scoping. This Draft EA will be posted for public review once approved by USDA-ARS and any comments received will be considered by USDA-ARS in making final project decisions.

1.2 Beltsville Agricultural Research Center Facility Description and Vicinity

In 1910, the USDA purchased a farm in Beltsville, Prince George's County, Maryland, soon referred to as the Experiment Farm of the Dairy and Animal Husbandry Divisions. Major expansion of facilities and services occurred during the 1930s, through the completion of several improvement projects by the Civilian Conservation Corps (CCC). By 1942, all USDA research facilities in Bethesda, Maryland; Arlington, Virginia; and Washington, DC were transferred to Beltsville, forming one consolidated research center known as the Beltsville Agricultural Research Center. During subsequent years, land was transferred to various Federal agencies, slowly reducing BARC's size. In June 2000, Henry A. Wallace's name was added to the facility in honor of his service as the 11th U.S. Secretary of Agriculture from 1933–1940. The current BARC campus is administered by the USDA-ARS and contains the greatest concentration of diverse agricultural research programs within the ARS nationwide (USDA, 1996).

Figure 1-1: Location of Building 11A, Beltsville Agricultural Resource Center



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/29/2020

The BARC is a campus of agriculture fields and supporting infrastructure, laboratories, and offices. It is accessible from U.S. Route 1, and the Baltimore-Washington Parkway, which provide connectivity to both Interstate 95 (I-95) and the Capital Beltway Inner Loop (I-495). BARC consists of approximately 6,615 acres organized as “farms,” which support clusters of permanent laboratories and administrative buildings, numerous temporary agricultural storage structures, and open agricultural fields (depicted on Figure 1-1). The BARC is bordered by the suburban community of Beltsville, the cities of Greenbelt and College Park, and by several properties managed by other Federal agencies.

1.3 Purpose

The purpose of the Proposed Action is to continue to reduce long-term operational and maintenance costs and reduce BARC’s impact on the Chesapeake Bay Watershed. The 2015 *Reduce the Footprint Policy* (Executive Office of the President, Office of Management and Budget, 2015) mandates the aggressive disposal of surplus properties held by the Federal Government, makes more efficient use of its real property assets, and reduces the total square footage of domestic office and warehouse inventory. This policy also requires each agency to develop a Real Property Efficiency Plan describing each agency’s strategic and tactical approach to managing its real property. The USDA’s *Real Property Efficiency Plan for Fiscal Year 2019-2023* (USDA, 2018b) provides for the annual reduction of office and warehouse/storage square footage by one percent per fiscal year. The USDA-ARS would also reduce its operational costs through compliance with BARC’s municipal separate storm sewer system (MS4) permit goal of achieving a 20-percent reduction of impervious surface area by 2025. Achieving this goal would support the potential redevelopment of certain BARC areas making the facility more sustainable and supportive of new and ongoing research opportunities.

1.4 BARC Needs

Research conducted at BARC focuses on agricultural production, protection, processing, consumption, and natural resources. The primary need for the BARC campus is to continue to support USDA-ARS’s diverse and important mission. The USDA-ARS mission that BARC supports is to develop the knowledge and technology needed to solve agricultural problems of broad scope and high national priority. Achievement of this mission will ensure adequate production of high-quality food, fiber, and other agricultural products to meet the nutritional needs of the American consumer, to sustain a viable food and agricultural economy, and to maintain a quality environment and natural resource base. Through the Proposed Action, the USDA-ARS will continue to further its mission by reducing long-term operational and maintenance costs through the removal of Building 11A as it no longer supports BARC’s desired research goals.

The primary need is to meet the facility-wide 20-percent reduction of building retired stock no longer necessary to meet mission goals, as mandated by the 2015 *Reduce the Footprint Policy*. Removal of Building 11A will support BARC’s goal of achieving the 20-percent impervious surface area reduction facility-wide required to support the health of Chesapeake Bay. Building 11A is unused and has been determined to no longer meet mission critical requirements and therefore should be removed. Building 11A, like many of the buildings at BARC, does not meet current code requirements for electrical, ventilation, fire suppression, and chemical and biological pathogens control. The cost to retrofit Building 11A to meet current requirements and house new instrumentation and genetic research, even if there were personnel planned to occupy it, would be cost prohibitive. Additionally, the way the building was envisioned to be used for laboratory and field research use has changed over the past 50 years. The size of the building and its floorplan, once considered cutting edge, is now dated and antiquated and cannot support the different space allocations and flow to meet current industry standards. The area surrounding Building 11A requires ongoing maintenance and the building poses a safety and health risk to workers due to its degraded interior condition and the presence and exposure of potentially hazardous materials.

The secondary need is to maintain compliance with the facility's MS4 goal of achieving a 20-percent reduction in impervious area across the facility. To do so, USDA-ARS must demonstrate compliance with U.S. Environmental Protection Agency's (EPA) *Technical Guidance on Implementing Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (EISA) (EPA, 2009). This requires that the site of Building 11A and other removed buildings be returned to pre-development conditions, if feasible, including natural topography, to promote natural water drainage patterns across BARC.

The tertiary need is to address human safety and security risks in support of the facility's mission. Building 11A has been unoccupied since 2014. The condition and remoteness of Building 11A makes maintaining security of the facility difficult. Ongoing deterioration of the structure has exposed building materials presumed to contain asbestos, lead paint, mercury, polychlorinated biphenyls (PCBs), and various petroleum-based products to potential occupants and eventually may expose these contaminants to the surrounding environment. As the building deteriorates, these compounds may be released into the air, soil, and groundwater and pose a possible health risk to maintenance workers and researchers working in neighboring buildings.

1.5 Decisions Required

This EA analyzes the effects of the Proposed Action, the demolition of Building 11A on the BARC campus, and returning the site to as close to pre-development conditions as feasible. Based on the needs and purpose identified, the scope of the decisions required is limited to which actions, if any, will be approved and if any additional mitigation measures and monitoring requirements may be warranted to protect the resources present.

The deciding official is Dr. Charles Onwulata, Northeast Area Director, Agricultural Research Service, USDA.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

USDA-ARS proposes to demolish Building 11A to reduce operational and maintenance costs, reduce the impervious footprint within BARC in compliance with Federal mandates and the facility's MS4 permit goals, and address potential human health and safety and facility security risks.

2.1 Proposed Action Alternative

Under the Proposed Action Alternative Building 11A would be demolished in its entirety, including all associated systems and utility infrastructure above and below ground. Building 11A served as a bioscience research center during its tenure of operation on the North Farm of BARC. Building 11A occupies a 5,100 square foot footprint is composed of three stories above ground plus a basement. All materials, equipment, and demolition debris would be removed from the site and properly disposed of according to material type and applicable Federal and State regulations. All hazardous materials would be removed and disposed of offsite at an approved Treatment, Storage, and Disposal Facility (TSDF), and all demolition debris would be removed and disposed of offsite at an approved construction debris landfill. In compliance with EPA Section 438 of the EISA, the majority of the building site would be returned to pre-development conditions, where feasible, resembling natural topography to promote natural surface drainage patterns. The site would be stabilized with a seed mix or plantings consistent with Maryland Department of Natural Resources (MDNR) or Maryland Department of the Environment (MDE) standard specifications to minimize surface erosion and colonization by invasive species. Seeding to create a pollinator-friendly meadow or, where possible, reforest it using native tree species similar to those of the adjacent drainage corridor would be preferred. Once the building is removed, recontouring of the site to achieve positive drainage is dependent upon the proximity of the site to occupied and active buildings and the maintenance of live utility connections and access routes to those occupied buildings. Requirements of Section 438 of the EISA are further described in Section 3.2.2.

Appendix A provides photographs of Building 11A as documented on September 1, 2020.

The Proposed Action does not include redevelopment of the site nor removal of the existing parking lot or driveway. USDA-ARS would evaluate the potential for redevelopment of the site to support its mission at BARC and would conduct the appropriate level of environmental review under NEPA prior to execution of such development.

2.2 No Action Alternative

Under the No Action Alternative, USDA-ARS would not demolish Building 11A. The building would remain as it is today and continue to pose a safety, security, and maintenance risk to ongoing services at BARC. The building could fall into a state of disrepair, possibly collapsing and requiring removal. The No Action Alternative has the potential to adversely impact the Chesapeake Bay Watershed through long-term impacts on localized surface and groundwater quality as contaminants from a deteriorated or collapsed Building 11A could be washed into receiving waters by rain and snow. Keeping Building 11A would not satisfy the needs to reduce the facility footprint and associated operational and maintenance costs, reduce the impervious area of the facility, nor reduce human health and safety and facility security risks.

Although the No Action Alternative does not satisfy the stated needs, the No Action Alternative is carried forward for comparison to the Proposed Action Alternative in compliance with NEPA.

2.3 Alternatives Eliminated from Further Consideration

2.3.1 Repair or Rehabilitation of the Building for Continued or Other Use

This Draft EA does not consider the scenario of USDA-ARS repairing, rehabilitating, or reconstructing Building 11A for continued or other use. Due to shifts in research focus and technological advances, and

changes in research methodologies, Building 11A no longer supports USDA-ARS research and long-term mission goals and, as a result, has remained unoccupied for more than seven years. Repair, rehabilitation, or repurposing of the building would not satisfy current research requirements and would negatively affect already scarce resources used to maintain current building stock engaged in research and facility support. Furthermore, repair, rehabilitation, or repurposing of the building would not reduce the impervious footprint of the facility as required under the Federal *Reduce the Footprint Policy* or EISA nor would it satisfy the requirements of the MS4 permit issued by the MDE. For these reasons, this alternative was eliminated from further consideration.

2.3.2 Transfer of Buildings for Use as Facilities to Assist the Homeless

HUD periodically reviews Federal property identified as unutilized, underutilized, excess, or surplus for suitability to assist the homeless. During April and August 2014, several BARC buildings were identified as excess and determined to be suitable and available for use to assist the homeless. Building 11A has not been specifically advertised for such purpose at this time. Building 11A would require costly repair or rehabilitation to be suitable for housing the homeless. Building 11A is also located in a somewhat isolated area on the edge of other BARC building complexes and also near a residential area making it less desirable for this purpose. For these reasons, the transfer of Building 11A for the purpose of housing the homeless has been eliminated from further consideration.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment described in this EA focuses on resources present on the BARC Campus and in the vicinity of Building 11A that could be affected by the Proposed Action. Data were obtained from readily available sources including online digital information; documents from USDA and other Federal entities, the State of Maryland, Prince George's County, and the city of Beltsville; communications and interviews with BARC campus staff and personnel; and investigations of the interior of Building 11A and the surrounding area conducted on September 1, 2020. For each resource category, the anticipated effects of the Proposed Action and No Action alternatives are described following the description of the affected environment.

Located on the eastern boundary of BARC's North Farm, Building 11A is a three-story masonry building with a basement. The building is of reinforced concrete frame construction and clad in brick veneer in a running bond pattern over concrete masonry unit walls. The building forms a square when viewed from above with an open central courtyard on the first level. See Appendix A, Building Photographs, for pictures of the building.

3.1 Geology, Topography, and Soils

3.1.1 Affected Environment – Geology, Topography, and Soils

3.1.1.1 Geology

BARC is in the Atlantic Coastal Plain physiographic province and underlain by the Chesapeake Rolling Coastal Plain level IV ecoregion. It is characterized by distinctive sedimentary rocks that distinguish it from the Piedmont ecoregion, which consists of metamorphic rock. The Chesapeake Rolling Coastal Plain consists of hilly uplands with well-drained loamy soils and incised streams (Woods et al., 1999). A layer of unconsolidated sediments, including gravel, sand, silt, and clay, underlie the Atlantic Coastal Plain, which overlaps the rocks of the eastern Piedmont. The sediments of this area dip eastward at a low angle, generally less than one degree, and range in age from Triassic to Quaternary. The younger formations crop out successively to the southeast across southern Maryland and the Eastern Shore. A thin layer of Quaternary gravel and sand covers the older formations throughout much of the area (MGS 2020a).

3.1.1.2 Topography

According to the United States Geological Survey (USGS) 7.5-minute topographic maps of the *Laurel Quadrangle, Maryland* elevations across the North Farm range from approximately 110 to 260 feet above mean sea level (msl). The highest point on the North Farm is near the western end of Sellman Road. From this point, elevations decrease in all directions to the boundaries of the North Farm. Little Paint Branch bisects the North Farm from north to south. Surface water in the western part of the North Farm flows to the west and southwest towards Paint Branch beyond the BARC property boundary. Surface water flows towards Little Paint Branch within the eastern part of the North Farm. Shallow groundwater is expected to flow in a similar direction to the surface topographic grades described (USGS, 2016a). Building 11A sits at an elevation of approximately 150 feet above msl. Surface water drains west from the building site towards Little Paint Branch.

3.1.1.3 Soils

According to USDA Natural Resources Conservation Service (NRCS) mapping, BARC contains 56 distinct mapped soil units, including 10 soil unit types identified as prime farmland. Forty of these mapped soil units occur within the North and Central Farms. Approximately 2,850 acres, or 44 percent, of BARC's

approximate 6,500 total acres is identified as prime farmland. An additional 1,265 acres of BARC is designated as farmland of Statewide importance.

The loamy soils of this ecoregion are naturally low in nutrients, compared to the more nutrient-rich Piedmont soils. Though the region does include prime farmland, most soils require liming and fertilizing to be productive for agricultural crops. The well-drained, rolling open hills, and comparatively less forested character of the region, has made it an attractive location for general farming and livestock production (Woods et al., 1999; NRCS, 2020).

The North Farm encompasses approximately 540 acres. Soils on this farm are primarily loams, sandy loams, and silt loams. Approximately 28 percent of North Farm is designated as prime farmland and an additional 16 percent is designated as farmland of Statewide importance. Approximately 50 percent of the soils on the North Farm have a severe to moderate erosion hazard.

Table 3-1 shows mapped soil units, runoff class, water storage, hydric status, farmland classification, erodibility, and acres of soil type at the Building 11A site. Building 11A overlies two soil types, the Russett-Christiana complex, 2 to 5 percent slopes and Sassafras and Croom soils, 10 to 15 percent slopes (NRCS, 2020). Neither soil type is considered prime farmland or of statewide importance. Figure 3-1 and Figure 3-2, respectively, illustrate the soils adjacent to Building 11A that are considered as prime farmland and of statewide importance and those that are highly erodible.

For demolition and clearing activities, runoff factors are an important consideration. Sites with low and very low runoff factors are prone to absorbing rainfall and could potentially become waterlogged or flooded if low water storage occurs in the soil profile. The soil erosion hazard indicator denotes how susceptible a given soil type is to loss from erosion after disturbance activities that expose the soil surface. The soil erosion hazard is based on the soil's erosion factor K and the slope indicating the level of potential soil loss that may be caused by sheet or rill erosion in areas where 50 to 75 percent of the soil surface has been exposed. Soil erosion hazard is categorized as follows:

- Slight (erosion is unlikely under ordinary climatic conditions)
- Moderate (some erosion is likely and erosion control measures may be needed)
- Severe (erosion is very likely and erosion control measures are advised, including revegetation of bare areas)
- Very severe (significant erosion is expected, loss of soil productivity and offsite damage are likely, and erosion control measures would be costly and generally impractical)

Table 3-1: Mapped Soil Units, Runoff, Water Storage, Farmland Classification, and Erodibility Underlying Building 11A

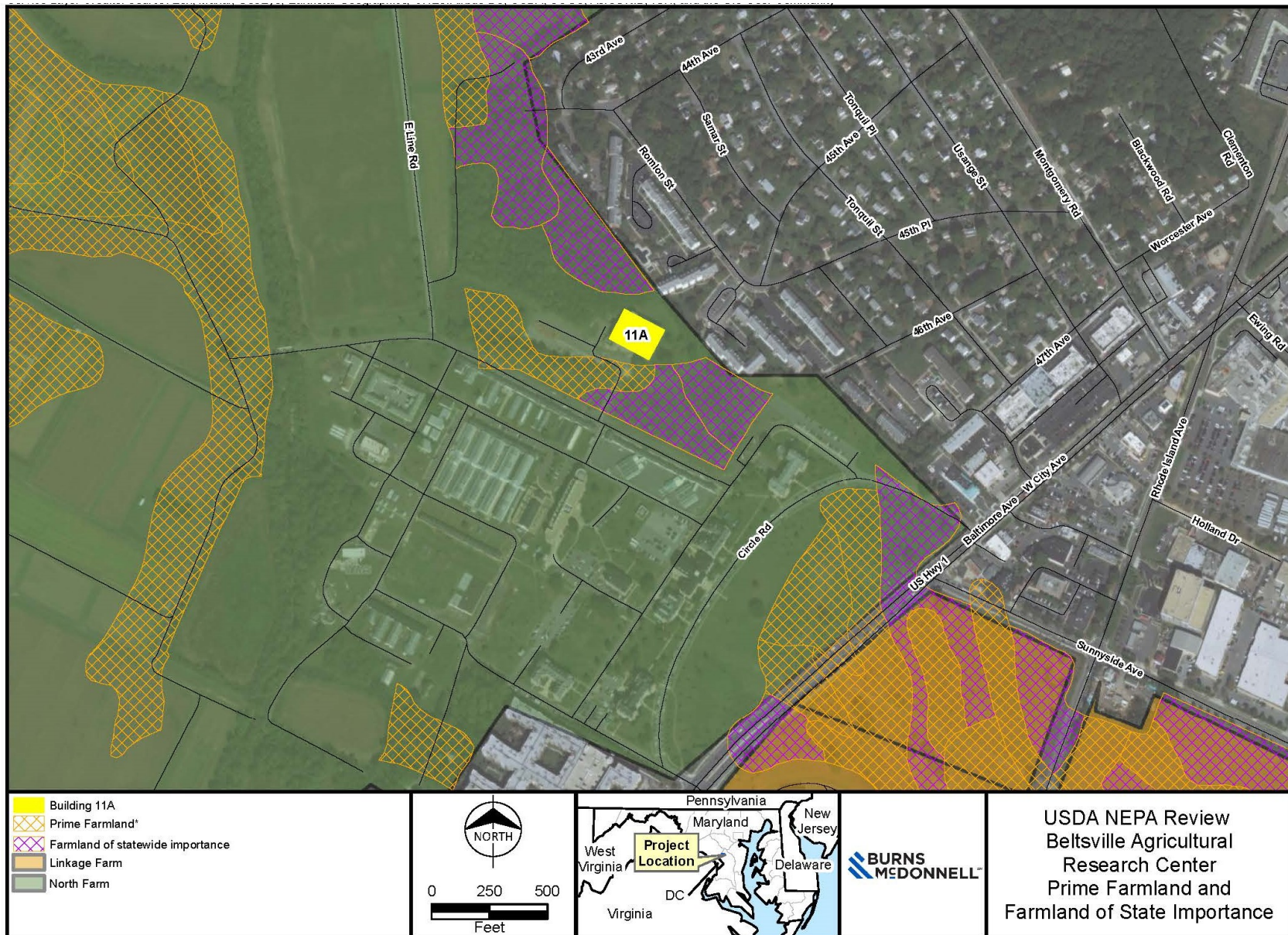
Mapped Soil Type	Runoff Class (a)	Water Storage (a)	Hydric (b)	Farmland Classification (c)	Erodibility (c)	Acres
RuB Russett-Christiana -Urban land complex, 0-5 percent slopes	Low	High	Not Hydric	Not Prime or of Statewide Importance	Moderate	0.5
SOD Sassafras and Croom soils, 10 to 15 percent slopes	Low	High	Not Hydric	Not Prime or of Statewide Importance	Moderate	0.1

(a) USDA-ARS (2018) EA

(b) University of Maryland Extension, List of Hydric Soils for Prince George's County; accessed November 16, 2019.

(c) NRCS (2020)

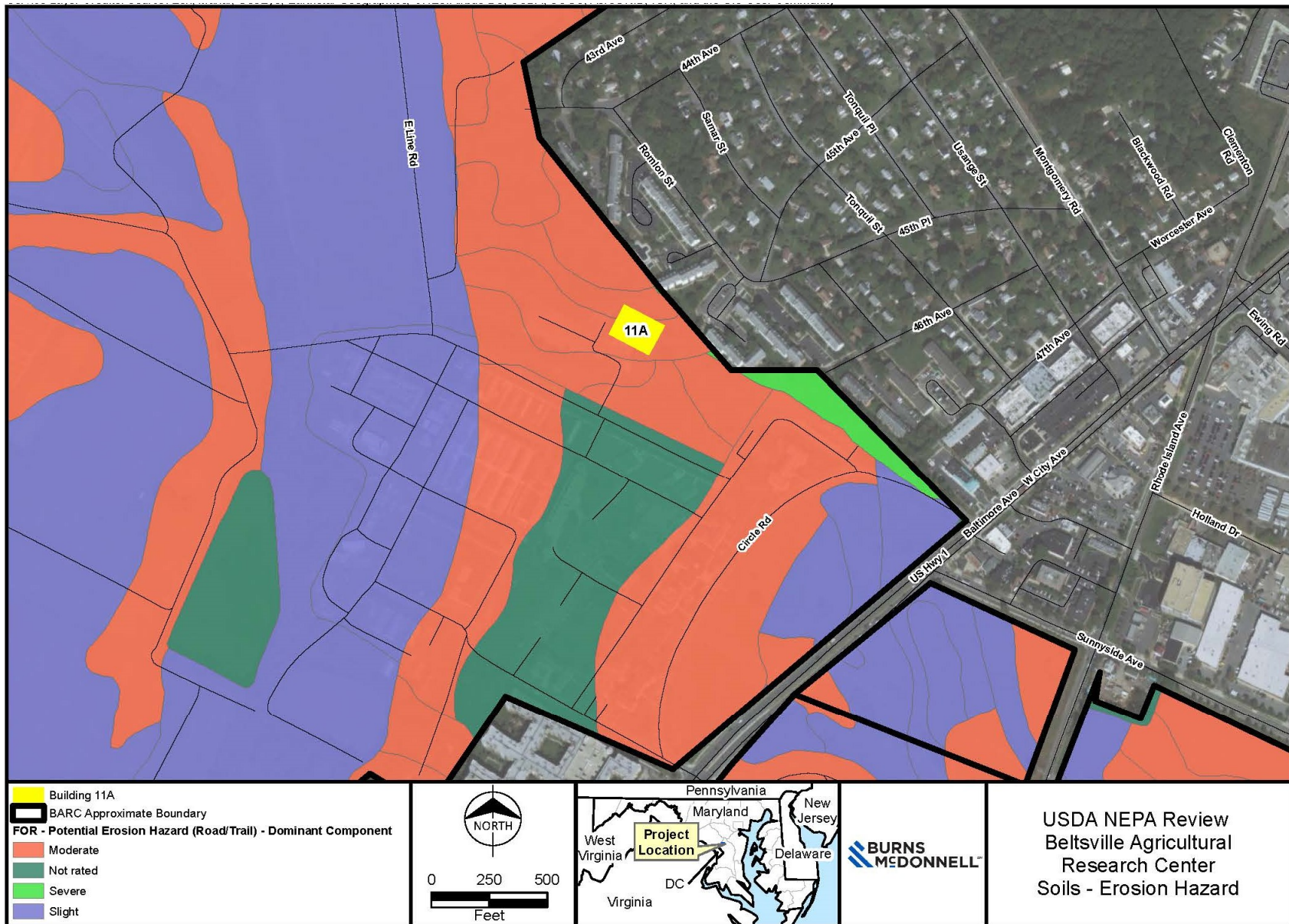
Figure 3-1: Building 11A NRCS Prime Farmland and Farmland of Statewide Importance



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/15/2020

Figure 3-2: Building 11A NRCS Soil Erosion Hazard



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/15/2020

3.1.2 Environmental Consequences – Geology, Topography, and Soils

3.1.2.1 Proposed Action Alternative

Soil disturbance would be temporary and occur in response to removal of Building 11A and its supporting infrastructure. A demolition plan, including an assessment of soil condition, would be completed for the site prior to beginning demolition. Depending on the size of the area of disturbance, development of a soil and erosion control plan may be necessary and would be approved by Prince George's County prior to beginning demolition. Best management practices (BMPs) would be identified and implemented to minimize soil disturbance and the potential for soil erosion or contamination based on existing site conditions. For areas on the site with the potential for high water storage capability, temporary watering may be conducted to make the site suitable for grading. Excavation and material removal activities during demolition are anticipated to be relatively shallow (less than 15 feet below the ground surface) and would be evaluated so as not to disturb underlying geology. Additional BMPs would be implemented to manage stormwater runoff from entering neighboring drainages, streams, or wetlands, where applicable. When all built components of the site are disposed of properly, excavated areas would be filled with clean, native soil and the area would be graded to provide positive drainage. The extent of grading and site restoration would be considered according to the proximity of the site to remaining occupied structures, accessible roads/drives, and active utilities. Following demolition and grading, the site would be stabilized with a seed mix or plantings consistent with MDNR or MDE standard specifications to minimize surface erosion and colonization by invasive species.

3.1.2.2 No Action Alternative

Under the No Action Alternative, no grading or soil disturbance would occur. The existing topography around Building 11A would remain unchanged. No changes would be made in the amount of pervious vegetative cover present. The building could deteriorate, leading to the potential release of hazardous substances into the environment from building materials or abandoned equipment, which may include heavy metals, fuels, lubricating oils, PCB containing oils, pesticides, herbicides, asbestos fibers, and other laboratory chemicals. The effects of past facility use on potential soil contamination are addressed in Section 3.11.2.

3.2 Water Resources

3.2.1 Affected Environment – Water Resources

3.2.1.1 Surface Waters and Water Quality

BARC lies within the eastern-central portion of the Anacostia River Watershed (HUC10 0207001002), which encompasses approximately 178 square miles, including portions of Prince George's and Montgomery Counties in Maryland and the District of Columbia. The watershed spans both the Piedmont and Atlantic Coastal Plain ecoregions (MDNR, 2005; USGS, 2017). Numerous water features are mapped across the BARC campus, ranging from small, unnamed headwater tributaries that originate on the campus to longer stretches of named creeks that receive and transport water offsite. Of the numerous named creeks and streams, Little Paint Branch and its tributaries cross the North Farm.

Figure 3-3 depicts mapped surface waters adjacent to Building 11A based on the National Hydrography Dataset (NHD) (USGS, 2020a), 100-year floodplains (FEMA, 2020a), and wetlands based on the National Wetland Inventory (NWI) database (USFWS, 2020a). Under Section 404 of the Clean Water Act (CWA), the EPA authorizes the U.S. Army Corps of Engineers (USACE) to regulate impacts to wetlands and waters of the United States through a permitting process. 'Waters of the United States' is an inclusive term that includes streams, rivers, wetlands, and other aquatic sites that fall under the USACE's jurisdiction. No field delineations in accordance with USACE protocols have been conducted for the

surface water features illustrated on Figure 3-3. According to the data reviewed and presented on Figure 3-3, one NWI wetland may be present on or immediately adjacent to the proposed demolition site.

3.2.1.2 Groundwater

BARC is within the Patuxent aquifer system, part of the larger Coastal Plain aquifer system that underlies Prince George's County. The deepest water production wells (depth of 2,400 feet) in Maryland flow from the Patuxent aquifer system and are located at the southern tip of Prince George's County at the Chalk Point Power Plant (Andreasen et al., 2013). Karst features within Maryland are limited to the northern region of the State and are not present within Prince George's County (MGS, 2020b).

The Patuxent and Arundel formations directly underlie the BARC campus, while portions of the far eastern reaches of the facility may be underlain by the Patapsco formation. The Patuxent and Patapsco formations are predominantly composed of sand and gravel materials, while the intervening Arundel formation is predominantly clay. All three formations dip to the southeast, which in turn control the flow direction of regional groundwater resources.

One observation well, PG Bc 16, is on the North Farm and has been active since 1962. The well is 27 feet below the land surface and is approximately 0.68 mile west of Building 11A (USGS, 2020b). The BARC campus pumps and treats its own well water used for all operational purposes, including potable, laboratory, sanitary, fire suppression, and irrigation.

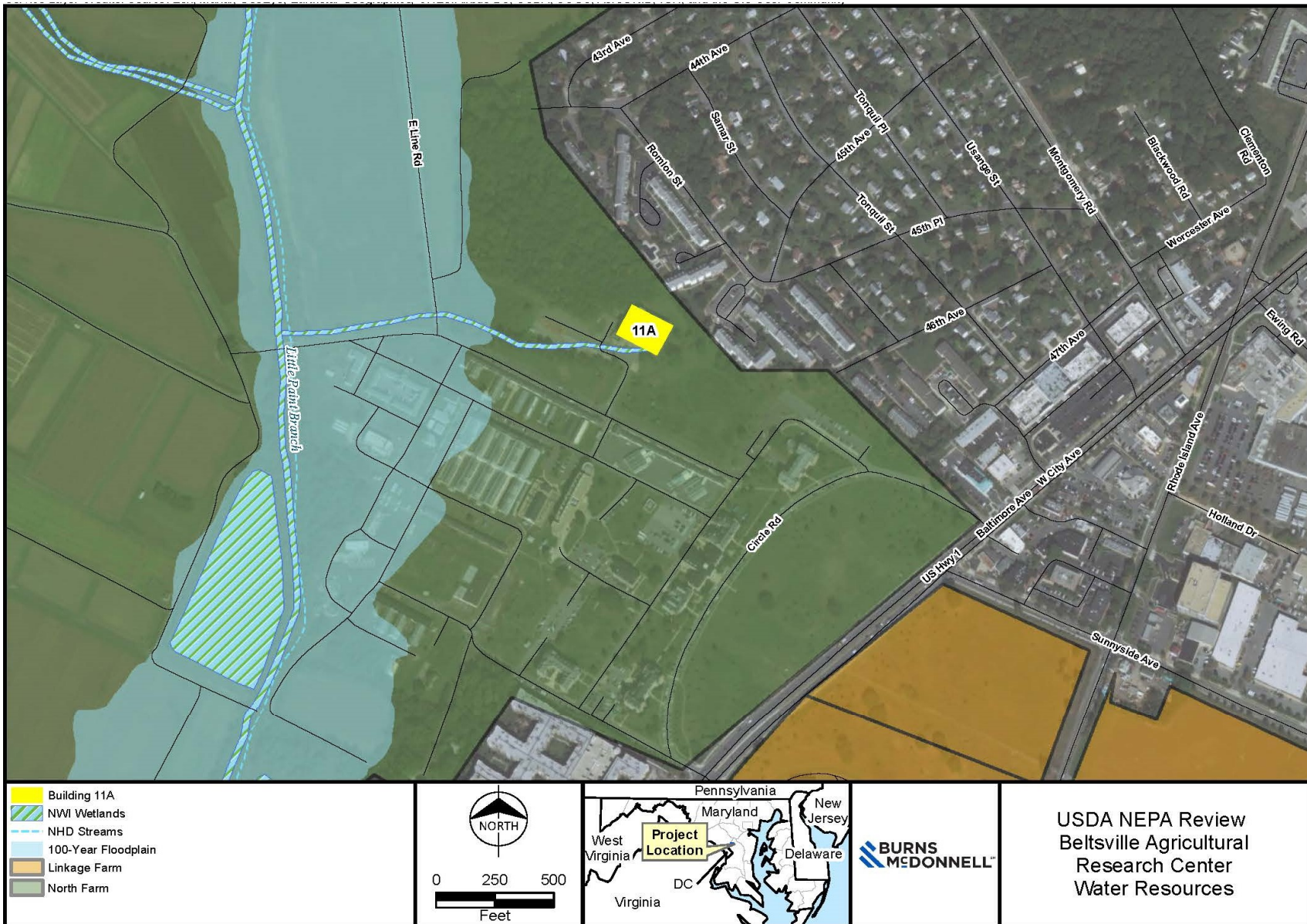
The sands and gravels of the Patuxent and Patapsco formations are the primary water-bearing aquifers serving the drinking water needs in Prince George's County and other counties to the east. The BARC itself pumps more than 0.6 million gallons per day (MGD) of water from an unspecified number of wells located within the facility. While the Patuxent Formation outcrops in the western portions of the facility, onsite well logs indicate that BARC's supply wells intercept the formation at depths of approximately 150 feet or greater. Most of the groundwater withdrawn from the Patuxent is obtained under normal water table conditions. (i.e., pumping). However, some areas are confined by the increasingly thickening Arundel clays, which create artesian conditions. Recharge of the Patuxent Aquifer relies primarily on vertical and lateral movement of water through outcrops in the western portions of BARC. The clayey nature of the overlying Arundel formation effectively precludes downward percolation into the lower aquifer and creates a hydrologic barrier to flow.

3.2.1.3 Floodplains

All counties in the State of Maryland participate in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP) which aims to reduce the impact of flooding on private and public structures and encourages communities to adopt and enforce floodplain management regulations (FEMA, 2020b). The Water and Science Administration of MDE coordinates with counties and communities within the State to develop floodplain management ordinances containing Federal minimum requirements, and individual municipalities are responsible for implementing and enforcing the ordinances and associated permitting programs (MDE, 2020).

Based on the most recent FEMA Flood Insurance Rate Map (FIRM) database, approximately 843 acres of 100-year floodplain are mapped within BARC boundaries (FEMA, 2020a), including 119 acres across the North Farm. Building 11A sits approximately 500 feet outside of the 100-year floodplain mapped along Little Paint Branch (Figure 3-3).

Figure 3-3: Building 11A Surface Water Resources: Streams, Wetlands, and 100-Year Floodplains



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/15/2020

3.2.1.4 Wetlands

BARC contains approximately 640 acres of mapped wetlands and the North Farm contains approximately 14 acres of mapped wetlands according to the NWI (USFWS, 2020a). The wetland types mapped within the North Farm is listed in Table 3-2.

Table 3-2: Summary of NWI Wetlands by Type on the North Farm

Type	Type Description	Acres
PEM	Palustrine emergent	1.4
PUB	Freshwater pond	8.3
Riverine	Riverine (contained within channel)	3.9
Total NWI Wetlands		13.6

All mapped wetlands are freshwater wetlands and are concentrated along and adjacent to Little Paint Branch (see Figure 3-3). Building 11A encroaches on one mapped palustrine emergent NWI wetland associated with Little Paint Branch. It is assumed that the NWI mapping may reflect pre-construction conditions and that the mapped wetland feature was filled to construct Building 11A. Field delineations have not been conducted within the project site and no wetlands were observed during the site visit conducted on September 1, 2020.

3.2.2 Environmental Consequences – Water Resources

3.2.2.1 Proposed Action Alternative

Minor, short-term, and temporary impacts could occur to water resources resulting from excavation and grading at the Building 11A site. The one mapped NWI palustrine emergent wetland on the Building 11A site is no longer present. Building 11A, including the parking lot, appears to have covered the mapped wetland when it was constructed. The remaining mapped NWI wetland appears to begin southwest of the building parking lot and traverses west and connects to Little Pain Branch. A field delineation would need to occur to confirm the presence of any wetland features on the project site and to determine if features have the potential to be jurisdictional. A potential exists for fill materials to be placed within the mapped wetland area; therefore, a Section 404 permit under the CWA may be required. It is anticipated that the clearing of the building footprint would be limited to that required for removal of the structure and its associated foundation and supporting utilities used exclusively by Building 11A and would avoid or minimize encroachment into adjacent vegetation.

The Proposed Action would be subject to the requirements of Section 438 of the EISA because it involves a Federal facility and would result in the disturbance or more than 5,000 square feet of land area. To comply with the requirements of Section 438, the land at and surrounding Building 11A must be returned to pre-development hydrological conditions, to the extent technically feasible. This may require that all structures and materials associated with the building in the immediate area, both above and below ground, are removed. This may include, but not be limited to, removal of all above-ground building materials and utility systems, building foundations, below-ground utility systems, and roadways in the immediate area (while maintaining the continued function of other facilities as intended), and any other debris, supplies, or equipment located onsite. The only building appurtenance to remain would be the parking lot and associated lighting.

Per Section 438, following demolition and removal of materials from the site, the site needs to be regraded to manage the 95th percentile rainfall events onsite. A site-specific analysis may be needed for the project site due to the proximity of remaining and occupied buildings.

Prior to initiating demolition, the site would be reviewed to identify soil types and determine drainage patterns. A Stormwater Pollution Prevention Plan (SWPPP) would be developed and BMPs would be implemented during demolition and grading activities at the site. Implementation of applicable BMPs would prevent sediment-laden stormwater or water containing hazardous substances from entering nearby drainages or streams. Minimal and temporary increases in water usage may occur with the use of water in association with removal of asbestos containing materials or to minimize fugitive dust. Following recontouring of the project site, soil stabilization methods would be used to minimize erosion and limit establishment of invasive species.

Following stabilization of the project site, the Proposed Action would result in beneficial effects to local surface water, stormwater, groundwater, and floodplain resources. Removal of impervious cover and underground systems associated with Building 11A would reduce stormwater runoff volumes and increase absorption, increase groundwater recharge, and reduce displacement of floodwaters. The Proposed Action would also support USDA's continuing effort to reduce its impact on the Chesapeake Bay Watershed by reducing impervious surface area across the BARC campus and the requirement for BARC to achieve a 20-percent reduction of all impervious surface by 2025 to comply with its MS4 permit.

3.2.2.2 No Action Alternative

Under the No Action Alternative, no reduction in the amount of impervious surface area would occur as no building and associated improvements would be removed. No excavation or demolition would occur that could potentially contribute stormwater flow to neighboring drainages or streams or stormwater containing potentially containing hazardous substances to the surface or groundwater resources.

Long-term impacts to surface and groundwater quality are possible if building contaminants are washed by rain and snow onto the ground and eventually into receiving waters. Any soil contamination associated with Building 11A would potentially degrade groundwater resources. The No Action Alternative would not support the USDA's continuing effort to reduce its impact on the Chesapeake Bay Watershed and would potentially lead to increased adverse impacts over time as described.

3.3 Biological Resources

3.3.1 Affected Environment – Biological Resources

3.3.1.1 Vegetation

BARC maintains a mosaic of native vegetation, agricultural crops, and managed lawns. Developed areas dominated by managed turf/grass, urban trees, and shrubs include the settings of administrative and research buildings, agricultural operation facilities, and water treatment and utility plants. Numerous agricultural fields and pasturelands are bordered by drainages and areas currently unused and in various stages of vegetative succession. Native hardwood and bottomland forest areas are present across the facility and adjacent to Building 11A. Dominant upland tree species on and near BARC and the Building 11A site include oaks (*Quercus* spp.), maples (*Acer* spp.), Virginia pine (*Pinus virginiana*), and black cherry (*Prunus serotina*). Lesser stands of American holly (*Ilex opaca*), blackgum (*Nyssa sylvatica*), sweetgum (*Liquidambar styraciflua*), beech (*Fagus* sp.), and sassafras (*Sassafras* sp.) occur in the uplands. Along the many drainageways that cross the facility, bottomland forests include willow oak (*Quercus phellos*), sweetgum, river birch (*Betula nigra*), and red maple (*Acer rubrum*), with spicebush (*Lindera* sp.), buttonbush (*Cephalanthus* sp.), fetterbush (*Pieris* sp.), pepperbush (*Croton* sp.), and tussock sedge (*Carex stricta*) commonly found in the shrub layer (BARC, 1996).

3.3.1.2 Wildlife

Maryland's wild fauna is diverse, with an estimated 90 species of mammals, 93 species and subspecies of reptiles and amphibians, more than 400 species of birds, and several hundred freshwater and marine fish species (MDNR, 2020b). The BARC supports a diverse breeding bird population consisting of numerous migratory and wintering species, including the great blue heron (*Ardea herodias*), pileated woodpecker (*Dryocopus pileatus*), ovenbird (*Seiurus aurocapilla*), hooded warbler (*Setophaga citrina*), Kentucky warbler (*Geothlypis formosa*), black-and-white warbler (*Mniotilta varia*), prothonotary warbler (*Protonotaria citrea*), Louisiana waterthrush (*Parkesia motacilla*), Acadian flycatcher (*Empidonax vireescens*), and scarlet tanager (*Piranga olivacea*). More than 36 bird species overwinter on the facility, including sparrows, finches, raptors, and waterfowl (USDA, 1996).

Mammal species inhabit the forested and shrubland areas of the BARC campus, including whitetail deer, beavers, squirrels, foxes, short-tailed weasels, striped skunk, woodchuck, eastern chipmunk, and field mice. The facility is also home to domesticated animals used for agricultural production and research, including livestock (cows and swine), poultry, and honeybees (BARC, 2020). No domesticated animals are housed in or adjacent to Building 11A.

3.3.1.3 Protected Species

The Endangered Species Act (ESA) provides protection for plants and animals designated by the U.S. Fish and Wildlife Services (USFWS) as threatened or endangered species by prohibiting the take of the designated species (16 U.S.C. § 1531-1543). Protection under the ESA may also include protection of habitat designated as critical habitat for supporting listed species. The ESA defines take of a species as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” (16 U.S.C. § 1532). Section 7 of the ESA states that it is the responsibility of Federal agencies to ensure that any Federal action is not likely to jeopardize the continued existence or result in the destruction or adverse modification of habitat determined to be critical to the conservation of any such species.

Most avian species native to the United States are also protected under the Migratory Bird Treaty Act (MBTA) and bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA). The MBTA authorizes Federal regulation of the take of migratory birds and is a primary instrument in migratory bird conservation and protection in the United States MBTA and BGEPA also include protection of nests.

The USFWS's Information for Planning and Consultation (iPAC) identifies one federally listed threatened species that may occur on or near the BARC campus, as shown in Table 3-3 (USFWS, 2020b). It should be noted that including this species does not necessarily mean that it is known to occur within the BARC campus, but only acknowledges the potential for its occurrence based on historical records, known ranges, and presence of habitat. A brief description of the federally listed species is provided below.

Table 3-3: Federally Listed Species for Prince George's County, Maryland

Common Name	Scientific Name	Federal Listing	State Listing	Potential for Occurrence within BARC
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Not listed	Likely

Source: USFWS iPAC Resource List; October 23, 2020 (USFWS, 2020b)

Northern long-eared bat: The northern long-eared bat is found across much of the eastern and north central United States and all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. Northern long-eared bats are colonial hibernators, entering their

winter hibernacula in late August or September. After spring emergence, bats migrate to summer roosting and foraging grounds. In summer, the species is often associated with forested habitats where the bats make use of tree roosts, especially near water sources. Loose bark, broken tree limbs, cavities, and cracks in a tree can all be used by bats as roosting sites. Most frequently, they are found hanging singly or in small groups. Northern long-eared bats forage for insects over water, in forest clearings, and under tree canopies, using echolocation to catch prey and to navigate. They may also glean insects off leaves and other surfaces, a behavior that may be aided by their unusually large ears (MDNR, 2017). BARC is within the species' known range and the northern long-eared bat may occur in small numbers within the proposed project site where suitable habitat occurs. Suitable roosting habitat may be present along Little Paint Branch in the vicinity of Building 11A.

In addition to federally protected species, the State of Maryland enacted the Nongame and Endangered Species Conservation Act in 1975, providing protections for additional species designated by the State as rare, endangered, or threatened (MDNR, 2020c). A complete list of protected species in Prince George's County is included in Appendix C.

3.3.1.4 Pollinators

The BARC is home to the USDA Bee Research Lab that conducts research to improve the health of honeybee colonies. Several Bee Yards (group of bee houses) have been established across the BARC campus; the Bee Yard locations closest to Building 11A are at Buildings 1422 and 1425 on the Central Farm, approximately two miles to the southeast.

3.3.1.5 Invasive Species

Invasive plants and noxious weeds are species of vegetation that are not native to an area but have a high propensity for rapid and uncontrolled growth in areas where they are introduced. These species outcompete and displace native species and can cause degradation of habitat and depletion of resources for native wildlife and plants while also causing nuisance or harm to agricultural operations. Executive Order (EO) 13112 *Invasive Species*, issued on February 3, 1999, established the Invasive Species Council and required the development of a National Invasive Species Management Plan to prevent/minimize the introduction and spread of invasive species and to minimize the environmental and economic risks associated with invasive species. Subject to the availability of resources, EO 13112 also instructs Federal agencies whose actions may affect the status of invasive species to take actions to prevent, detect, and monitor invasive species and promote public education.

Common invasive plants in Maryland's forested habitats include bamboo, English ivy (*Hedera helix*), Japanese stiltgrass (*Microstegium vimineum*), kudzu vine (*Pueraria montana*), mile-a-minute vine (*Persicaria perfoliate*), multiflora rose (*Rosa multiflora*), and oriental bittersweet (*Celastrus orbiculatus*) (MDNR, 2020a). Maryland has a Weed Control Law, which requires landowners and managers to manage noxious weeds on their land. Common noxious weeds in Maryland include shattercane (*Sorghum bicolor*), johnsongrass (*Sorghum halepense*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), plumeless thistle (*Carduus acanthoides*), and musk thistle (*Carduus nutans*) (MDA, 2015).

3.3.2 Environmental Consequences – Biological Resources

3.3.2.1 Proposed Action Alternative

The building and adjacent areas would be reviewed for the presence of potential bat habitat and for the presence of nesting migratory birds prior to beginning demolition. Vegetation would be removed from the building perimeter. Vegetation may also be removed to facilitate infrastructure removal and support recontouring of the site. If active bird nests are discovered, no vegetation removal or building demolition would occur until after the young have fledged.

The northern-long-eared bat may be present on the BARC campus during summer roosting and foraging periods. The bat may roost under exfoliating bark or within cavities of dead trees. The demolition of Building 11A would not exceed the 15-acre threshold established by USFWS for habitat removal. Additional coordination with USFWS is recommended to review the site assessment findings and determine prior to demolition what mitigation, if any, may be needed. If potential bat roost trees are identified adjacent to Building 11A (along Little Paint Branch), tree removal may be limited to occurring only during the winter hibernation season (November through March). Following demolition and grading, the project site would be stabilized with a seed mix or plantings consistent with MDNR or MDE standard specifications to minimize surface erosion and colonization by invasive species.

The exterior of Building 11A would also be reviewed to determine if any birds are nesting within soffits, exterior light fixtures, or along window ledges or other building appurtenances. If bird species subject to protection under the MBTA are found with active nests on the building, demolition cannot occur until the young have fledged.

3.3.2.2 No Action Alternative

Under the No Action Alternative, no vegetation would be removed except what may occur during normal facility maintenance activities. The forested areas around Building 11A would remain as they are today. No effects would occur to resident or migratory wildlife or protected species.

3.4 Air Quality

3.4.1 Affected Environment – Air Quality

3.4.1.1 National Ambient Air Quality Standards

The Clean Air Act (CAA), enacted in 1977 and amended in 1990, requires the EPA to establish National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. Ambient air is defined as “that proportion of the atmosphere, external to buildings, to which the general public has access” (40 CFR 50.1(e)). The EPA has set NAAQS for six criteria air pollutants—carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), and sulfur dioxide (SO₂).

States and tribes are required to regularly report ambient air quality data to the EPA, which the EPA utilizes to determine whether the state or tribe meets the NAAQS for each criteria pollutant (attainment) or does not meet NAAQS for each criteria pollutant (nonattainment). Nonattainment areas are required to prepare a State Implementation Plan (SIP) defining how the state or local government will bring the area into attainment status (EPA, 2017a). The EPA categorizes nonattainment as marginal, moderate, serious, severe, or extreme based on the extent to which measurements exceed the NAAQS. During 2019, Prince George’s County was identified by the EPA as a marginal nonattainment area for ozone and an attainment area for all other criteria pollutants (EPA, 2020a).

Section 176(c) of the CAA establishes the requirement for general conformity to ensure that Federal actions support a state or area’s compliance with SIPs in nonattainment areas. General conformity requirements must be demonstrated for a given project or action to ensure that the action will not cause or contribute to violations of NAAQS or delay attainment of NAAQS in nonattainment areas. General conformity is determined by whether an applicable project complies with the *de minimis* levels for annual criteria pollutant emissions, as established in 40 CFR Part 93.153, and listed in Table 3-4.

Table 3-4: General Conformity *De Minimis* Thresholds^(a)

Pollutant	<i>De Minimis</i> Threshold (tons/year)
Ozone (VOC's or NOx)	
Serious nonattainment area	50
Severe nonattainment area	25
Extreme nonattainment area	10
Other ozone nonattainment areas outside an ozone transport region:	100
Other ozone nonattainment areas inside an ozone transport region:	
VOC	50
NO _x	100
Carbon Monoxide: All maintenance areas	100
SO ₂ or NO ₂ : All nonattainment areas	100
PM ₁₀ :	
Moderate nonattainment areas	100
Serious nonattainment areas	70
PM _{2.5} (direct emissions, SO ₂ , NO _x , VOC, and Ammonia)	
Moderate nonattainment areas	100
Serious Nonattainment areas	70
Pb: All nonattainment areas	25

(a) 40 CFR Part 93.153

De minimis thresholds are applicable to total emissions from construction and operation phases of a project. A project for which emissions would exceed *de minimis* thresholds would require further conformity analysis prior to receiving support from a Federal agency. A project for which emissions would not exceed *de minimis* thresholds would be exempt from further conformity analysis. Prince George's County is within a nonattainment area and the Proposed Action may therefore be required to demonstrate general conformity or may be subject to further conformity analyses.

3.4.1.2 Climate Change and Greenhouse Gas Emissions

Climate change refers to major changes in temperature, rainfall, snow, or wind patterns lasting for decades or more. These changes may be the result of natural occurrences (e.g., changes in the Earth's orbit, sun's intensity, or volcanic activity) or manmade activity (e.g., combusting fossil fuels, deforestation, and land development) (EPA, 2010). Combustion of fossil fuels results in greenhouse gases (GHGs), which trap and convert sunlight into infrared heat. Increased levels of GHGs in the atmosphere have been correlated to a rise in surface temperatures of the Earth, which is thought to contribute to climate change.

The White House Council on Environmental Quality (CEQ) published guidance on August 2, 2016, to Federal agencies requiring the consideration of GHG emissions and their effects on climate change. The CEQ guidance is applicable to all Federal actions subject to review under NEPA, including site-specific actions, certain funding of site-specific projects, rulemaking actions, permitting decisions, and land and

resource management decisions. Federal agencies should consider the extent to which a proposed action and its reasonable alternatives would contribute to climate change, through GHG emissions, and consider the ways in which a changing climate may impact their Proposed Action and any alternative actions, change the action's environmental effects over the lifetime of those effects, and alter the overall environmental implications of such actions.

3.4.2 Environmental Consequences - Air Quality

3.4.2.1 Proposed Action Alternative

The effects of the Proposed Action Alternative on localized air quality would be temporary and minor. Prince George's County is a nonattainment area for ozone. Because the Proposed Action would be a Federal project within a nonattainment area, it is subject to general conformity determinations under Section 176(c) of the CAA. As no construction timing or equipment information is currently available, emissions calculations for the Proposed Action would be required to determine whether construction and operational emissions of the action would exceed the *de minimis* emissions threshold, as presented in Table 3-4. If emission levels from the Proposed Action Alternative don't exceed *de minimis* thresholds, the Proposed Action Alternative would demonstrate general conformity under the CAA. If *de minimis* emissions thresholds were expected to be exceeded by the Proposed Action Alternative, it would be subject to further general conformity determinations prior to receiving approval (EPA, 2017b, 2017c).

Effects on localized air quality under the Proposed Action Alternative would include:

- emissions from vehicles and large equipment travelling to and from the site and use in onsite demolition, debris removal, and restoration activities
- fugitive dust resulting from excavation and earth-moving activities, physical wrecking of structures, loading of building debris, travel of vehicles and equipment on unpaved areas, and wind erosion from disturbed and exposed soils
- fugitive dust containing asbestos fibers may occur when friable asbestos containing materials are disturbed
- release of refrigerant gases may occur when air conditioning and refrigeration equipment is disturbed

These impacts would be temporary and of short duration. To minimize the potential for emissions and adverse impacts to localized air quality, BMPs would be used to reduce and manage emissions. The BMPs may include but not be limited to:

- Development and implementation of Dust and Emissions Control Plan by the contractor, including dust suppression measures such as watering exposed soil areas, washing construction vehicles before they leave the project site, using newer construction equipment that is more fuel efficient, and prohibiting equipment idling. Designation of haul roads for managing debris to roads less traveled by the public.
- Identification and removal of asbestos containing materials (ACM) prior to structural demolition to mitigate emission of fugitive fibers. Building demolition plans will be prepared based on the findings of the hazardous materials assessments conducted for each building and project site. Identification and removal of ACMs would be conducted compliant with 40 CFR Part 61 Subpart M and Code of Maryland Regulations (COMAR) 26.11.21. The removal activities for friable asbestos will be conducted in negative air pressure within containment to further mitigate fugitive fibers. Removed asbestos will be placed in sealed containers for transport and offsite disposal in accordance with applicable State and Federal regulations.

- Evacuate and capture refrigerant gasses from identified air conditioning and refrigeration equipment prior to structural demolition to mitigate release.

Refer to Section 3.11.1 for discussion related to the handling of known or anticipated hazardous materials.

The effect of the Proposed Action Alternative on GHGs is anticipated to be minimal and presumed well below *de minimis* standards. The generation of emissions from construction would be short term, temporary, and dispersed in terms of both location on the facility and schedule.

3.4.2.2 No Action Alternative

No additional emissions from construction or maintenance-related activities would be generated under the No Action Alternative. With the building remaining unused, not vehicular traffic would occur within the parking lot or near the building. Vehicle traffic volumes on roadways within the vicinity of Building 11A would not change. As noted previously Building 11A and the materials within and around it could deteriorate, leading to the release of potential hazardous compounds into the air under the No Action Alternative.

3.5 Noise

3.5.1 Affected Environment – Noise

The United States has a noise law known as the Noise Control Act of 1972; however, State and local authorities generally address noise enforcement regulations. Prince George's County noise standards as prescribed in the County Code at Sub-Title 19, Division 2, Section 19-120 through 19-126 are indicated in Table 3-5.

Table 3-5: Prince George's County Noise Standards

Sound Source Property Category	Receiving Property Category		
	All Times	Day	Night
Residential	A person may not create noise or allow noise to be created that disturbs the peace, quiet, and comfort of a residential area and includes residences in all areas.	65	55
Commercial	N/A	67	62
Industrial	N/A	75	75

Table 3-5 Definitions and Exemptions:

Noise is defined as audible from 50 feet from the source of the sound in a public right-of-way or an adjacent building:

- any sound resulting from the emergency operation of a public service company as defined in Section 1-101(x), Public Utilities Article of the Annotated Code of Maryland.
- any sound resulting from the operations of an instrumentality of the Federal, State, or County government, the Board of Education, a bi-county agency, or of a municipality.
- a sound resulting from the operation of an aircraft.
- on private property for which a valid use and occupancy permit has been issued for purposes of sporting, recreational, entertainment establishment, or for any other event to which the public is invited; or
- an event or activity with a validly issued permit, license or other written authority which takes place on property owned by the United States, the State, the County, the Board of Education, a bi-county agency, or a municipality.
- farm equipment being used on more than 5 acres or outside of 100 feet of the property line.
- lawn care, snow removal equipment and other household tools or equipment when used and maintained in accordance with the manufacturer's specifications between the hours of 7:00 to 9:00 pm.
- Prince George's County Code of Ordinances Division 2, Sec 19-120 to 19-125

The rural setting of the BARC campus equates to a relatively quiet soundscape. Brief interruptions in the ambient sound level occur during planting and harvesting activities (use of large farm equipment) and

when first responders using sirens access the campus to address emergency situations. The natural forest cover and rolling topography of the campus attenuate the sounds that occur primarily along the main roadways, within the larger active building clusters, and within the large expanse of agricultural fields near the center of the campus. Building 11A is in a relatively isolated location with wooded areas separating it from the nearest BARC buildings to the southwest and a residential neighborhood off the facility to the northeast. No ambient noise measurements have been conducted near Building 11A.

3.5.2 Environmental Consequences – Noise

3.5.2.1 Proposed Action Alternative

Localized, short-term, and intermittent increases in noise would be greatest during demolition and grading activities. Demolition activities would only be permissible during daylight hours and would be limited to short durations at each project site. Noise from heavy trucks accessing and leaving the project site along major roads on the facility would minimally increase traffic noise for short periods of time. The large open areas, forested areas, and varied topography adjacent to Building 11A act as natural noise barriers for developments more distant from the active project site. No blasting or pile driving is anticipated during the demolition process.

Demolition and site-grading activities would be exempt from Prince George's County noise standards because it is occurring on a Federal facility. In any event, USDA-ARS would enforce demolition activities to be limited to daylight work hours to minimize the short-term effects on surrounding uses. Additionally, all demolition contractors will be required to develop and implement a hearing conservation program that assures the hearing protection of employees identified in their site-specific safety plan.

3.5.2.2 No Action Alternative

No demolition or construction-type activities would occur under the No Action Alternative. Regular property maintenance and ongoing operational activities that generate noise would continue to occur in the vicinity of Building 11A.

3.6 Utilities and Infrastructure

Utilities and infrastructure serving the BARC campus include electrical utilities, water (potable and fire suppression), wastewater/sanitary sewer, solid waste management, steam generation, and fuel oil. The following sections summarize the utilities associated with the BARC campus, the North Farm and Building 11A.

3.6.1 Affected Environment – Utilities and Infrastructure

3.6.1.1 Electrical Utilities

Currently, electrical service is provided by the Potomac Electrical Power Company (PEPCO) and distributed to the buildings on BARC West by a network of underground distribution lines. Active buildings generally follow the Federal standard workday schedule, with occupancy typically occurring Monday through Friday from 6:30 AM to 6:00 PM. Increasing the agency's proportion of electrical energy sourced from renewable sources or Renewable Energy Credits (REC) is a goal of the USDA, intended to support compliance with the Energy Policy Act of 2005 (EPAAct) and the EISA. In 2018, BARC conducted an environmental review to evaluate the potential impacts of construction and operation of a solar photo voltaic systems onsite to supplement current power usage (USDA, 2018b).

The electric service at Building 11A is provided by a pad-mounted transformer powered by an underground service line.

3.6.1.2 Water

Potable water is supplied to Building 11A by the BARC potable water system. This system supplies adequate quantities of water to meet average daily demand and is under adequate pressure to be suitable for emergency and fire suppression purposes.

3.6.1.3 Wastewater

Wastewater management varies across the BARC campus. BARC owns, operates, and maintains two wastewater treatment plants (WWTP). The BARC-West WWTP provides wastewater service to the North Farm (USDA, 1996) and provides wastewater service to Building 11A. Several sanitary sewer manholes and an existing sewer lift station were observed (Appendix A, Photograph 19) in and adjacent to the parking lot associated with Building 11A during the September 1, 2020 site visit.

3.6.1.4 Stormwater Management

As described previously, the BARC campus is crossed by numerous streams with associated wetland complexes. All stormwater generated on the facility drains into the Northeast Branch of the Anacostia River through Paint Branch, Little Paint Branch, Indian Creek, Beaverdam Creek, and Beck Branch. Stormwater generated at Building 11A drains to Little Paint Branch. A myriad of agencies and regulations apply to the management and discharge of stormwater from the facility:

- EPA requires facilities to obtain National Pollution Discharge Elimination System (NPDES) permits for control of stormwater quality
- the U.S. Army Corps of Engineers (USACE) maintains jurisdiction over wetlands and waters of the U.S.
- Prince George's County Zoning and Maryland State Regulations restrict disturbance of floodplain areas established by FEMA

State of Maryland stormwater management procedures mandate minimum requirements and procedures to control adverse impacts associated with increased stormwater runoff. The BARC has not made major changes in its land use activities since the Maryland Stormwater Management Regulations were enacted during the mid-1980s. The few building projects that fall within the regulations have been reviewed by the State and approved as in compliance (USDA, 1996).

Although non-confined feeding or animal feeding (CFOs/AFOs) operations are exempt from State regulations, BARC is sensitive to the latest stormwater management, soil conservation, and water pollution control procedures. Farm operations at BARC are continually working with USDA NRCS to preserve the agricultural potential of BARC's soils and the natural environment (USDA, 1996).

BARC is required under the EO 13508 *Chesapeake Bay Protection and Restoration*, the Clean Water Act, its MS4 permit, and existing NPDES permits to reduce the nutrient load of the Federal facility to support the restoration of the Chesapeake Bay. In addition to BMP management, reforestation, and wetland restoration going on at BARC, the campus is also an active farm that is required to provide the MDE with an annual nutrient management plan.

BARC also is a participant on the Federal Facility Work Group that coordinates efforts between Federal facilities, state regulators, and the EPA to work towards these goals and is required to report annual progress to the MDE that is provided to EPA (USDA, 2018b).

3.6.1.5 Solid Waste Management

Non-Hazardous Waste Management: Nonhazardous solid waste (e.g., standard office waste and nonhazardous laboratory wastes) generated by operations at BARC are disposed of offsite. Each active building or site that generates waste has a waste management and disposal protocol in place, including

recycling of several material types. For long-term projects, such as building renovations, that are not part of ongoing typical operations, project-specific waste management plans are developed. Currently, RJ Disposal Service provides collection of nonhazardous solid waste and recyclables generated at BARC facilities. The contractor hauls materials to the appropriate materials management facilities offsite (USDA, 2018b). The former airport site on the BARC property is utilized for management of animal waste and wastewater treatment sludge by land application (USDA, 1996). Building 11A is vacant and solid waste is not currently generated at the site.

Hazardous Waste Management: Under 40 CFR 261, a large quantity generator (LQG) or hazardous wastes is defined as an entity or operation that generates 1,000 kilograms or more of hazardous waste monthly or more than one kilogram per month of acutely hazardous waste (EPA, 2020b). Based on this definition, BARC is categorized as a LQG and as such must operate as an LQG under the Maryland Resource Conservation and Recovery Act regulations. Hazardous wastes currently generated at BARC are primarily categorized as non-halogen solvents, analytical wastes, electrical devices, and compressed gases (USDA, 2018b). Building 11A is vacant and unused. Hazardous wastes are not currently generated at the building.

BARC is a Superfund Site, listed on the National Priority List (NPL) in 1994 and a Federal Facility Agreement in 1998. Sixty-three Areas of Concern (AOCs) were determined to require investigation after the Preliminary Assessment/Site Inspection (PA/SI) and site-screening process was completed. The AOCs include several former landfills, chemical disposal pits, and open storage areas with contaminated soil, groundwater, and surface water with hazardous chemicals. Building 11A is not located on a current or previously identified Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) area of concern and no known contaminated soils exists on the project site. Refer to Section 3.11.1 for discussion related to the handling of known or anticipated hazardous materials.

3.6.1.6 Steam Generation

A large and extensive steam generation and underground distribution system services the North Farm, providing steam heating and energy to Building 11A. The BARC campus's steam distribution piping system is aging, and leaking pipes and deteriorated insulation causes significant losses of energy. Current and planned modernization plans are or will be implemented to restore the steam system.

Steam service at Building 11A is fed by an underground 5-inch diameter pipe with accompanying 2-inch condensate return line.

3.6.1.7 Storage Tank Management

Pursuant to EO 13148, *Greening the Government Through Leadership in Environmental Management*, and the Emergency Planning and Community Right-to-Know Act (EPCRA), facilities that store above 10,000 pounds of petroleum products and laboratory samples onsite are subject to community right-to-know reporting requirements. Based on a 2018 review, none of BARC's registered underground storage tanks (UST) is known to be leaking (USDA, 2018b). Building 11A has no petroleum storage tanks, as confirmed during the September 1, 2020 site visit.

3.6.1.8 Summary of Utility Infrastructure in the Affected Environment

Utility infrastructure supporting Building 11A, historically used as a research laboratory, includes electricity, gas, steam, water, and sewer. The BARC-West WWTP provides the building with wastewater service. Based on field observations and available documentation, air conditioning for the building was provided by a modern mechanical system with an outside air-cooled water chiller unit and outdoor condenser units.

3.6.2 Environmental Consequences – Utilities and Infrastructure

3.6.2.1 Proposed Action Alternative

Further investigation of the project site would be conducted to identify all utilities serving Building 11A. A demolition plan and utility abandonment plan will be created to achieve the objective of removal while following applicable local regulations. Utility cutting and capping would be conducted prior to building structural demolition. Utility disconnection is commonly a prerequisite requirement for a demolition permit to be issued by the local authority.

Waterline laterals would be cut and capped at the main line where the branch serving the structure begins. The lateral line would be removed from the ground from the cut point back to the building. The water lines are expected to be metal pipes in the 1- to 2-inch diameter range and buried approximately 5 feet below ground surface. No insulation or contamination is expected to be encountered with removal. Soil would simply be excavated and replaced. The metallic pipe would be recycled.

Storm and sanitary sewer laterals would be cut and capped at the main line where the branch serving the structure begins. The lateral lines would be removed from the ground from the cut point back to the building. The sewer lines are expected to be clay, concrete, plastic, or metal pipes in the 4- to 12-inch diameter range and buried approximately 5 feet below ground surface. No insulation or contamination is expected to be encountered with removal. Soil would simply be excavated and replaced. The metallic pipes would be recycled, while other pipe types would be disposed of at a licensed landfill.

Electrical and communication lines would be cut at the main line where the branch serving the structure begins. Electrical and communication lines have been observed predominantly overhead onsite, although some underground lines are expected. The underground lines would be removed from the ground from the cut point back to the building. The lines are expected to be plastic insulated copper or aluminum conductors. Line sizes are expected in the 0.25- to 1-inch diameter range and buried 3 to 4 feet below ground surface. Overhead lines will be cut at the main line, dropped to the ground, and removed. Overhead utility poles only serving the subject building would also be removed. Electrical and communication lines will be recycled, wood overhead utility poles would be disposed of at a licensed landfill.

Where present, steam line laterals would be cut and capped at the main line where the branch serving the structure begins. The lateral line would be removed from the ground from the cut point back to the building. The steam lines are expected to be metal pipes in the 1- to 2-inch diameter range and buried approximately 3 to 4 feet below ground surface. Fiberglass or asbestos insulation is expected around buried steam lines. Soil would simply be excavated and replaced. If non-insulated or covered in non-hazardous insulation, the metallic pipe would be recycled. Asbestos-insulated pipes are typically disposed of in whole pieces as asbestos waste.

Gas laterals would be cut at the main line where the branch serving the structure begins. One underground gas lateral serves Building 11A. The lateral line would be abandoned in place from the ground from the cut point back to the building.

It does not appear that Building 11A has been serviced by septic tanks; however, wastewater management infrastructure would need to be confirmed during demolition plan development. Building 11A is vacant, but it is unclear whether sanitary sewer service has been tied-off, or if the system remains active.

The removal of Building 11A would have a positive effect on stormwater management and would support BARC's adherence to its MS4 permit requirements. The reduction of impervious surface and the creation of permeable surface meets both the 20-percent reduction of impervious surface and supports EO13508 for the restoration of the Chesapeake Bay by reducing stormwater runoff from Federal facilities.

If contaminated soils are found during demolition, soils would be tested, and any contaminated soils would be removed and properly disposed offsite according to material type and applicable State and Federal regulations. All hazardous materials would be removed and disposed of offsite at an approved TSDF. Refer to Section 3.11.1 for discussion related to the handling of known or anticipated hazardous materials.

3.6.2.2 No Action Alternative

As Building 11A continues to age, many building utilities have fallen into a state of disrepair. Overhead structures supporting electrical utilities may need to be removed to minimize health and safety risks from falling lines and poles. Underground potable water utilities in disrepair risk leaking, as well as introducing bacterial contamination into main lines from the stagnant laterals. Underground storm sewer lines of larger diameter introduce a risk of collapse migrating through soil up to a ground surface sink hole but given the small diameter of sanitary and storm sewer laterals, risk of surface sinkholes is minimal. No plans are currently proposed to make major improvements to the existing utility infrastructure at Building 11A under the No Action Alternative.

3.7 Transportation

The BARC campus is approximately 15 miles (by road) northwest of Washington, DC. It is accessible from several major highways running adjacent to or through the facility, including I-95/I-495 (the Beltway), U.S. 1 (Baltimore Avenue), and MD 295 (Baltimore-Washington Parkway). Several locally major roadways provide access adjacent to and within the facility, described in Section 3.7.1. Numerous minor paved roads provide direct access to buildings and building clusters for the public and personnel. Multiple transit systems provide access directly to the BARC campus and destinations within the surrounding area. Parking is provided within most building complexes accessible to employees and visitors at no cost (USDA, 2018b).

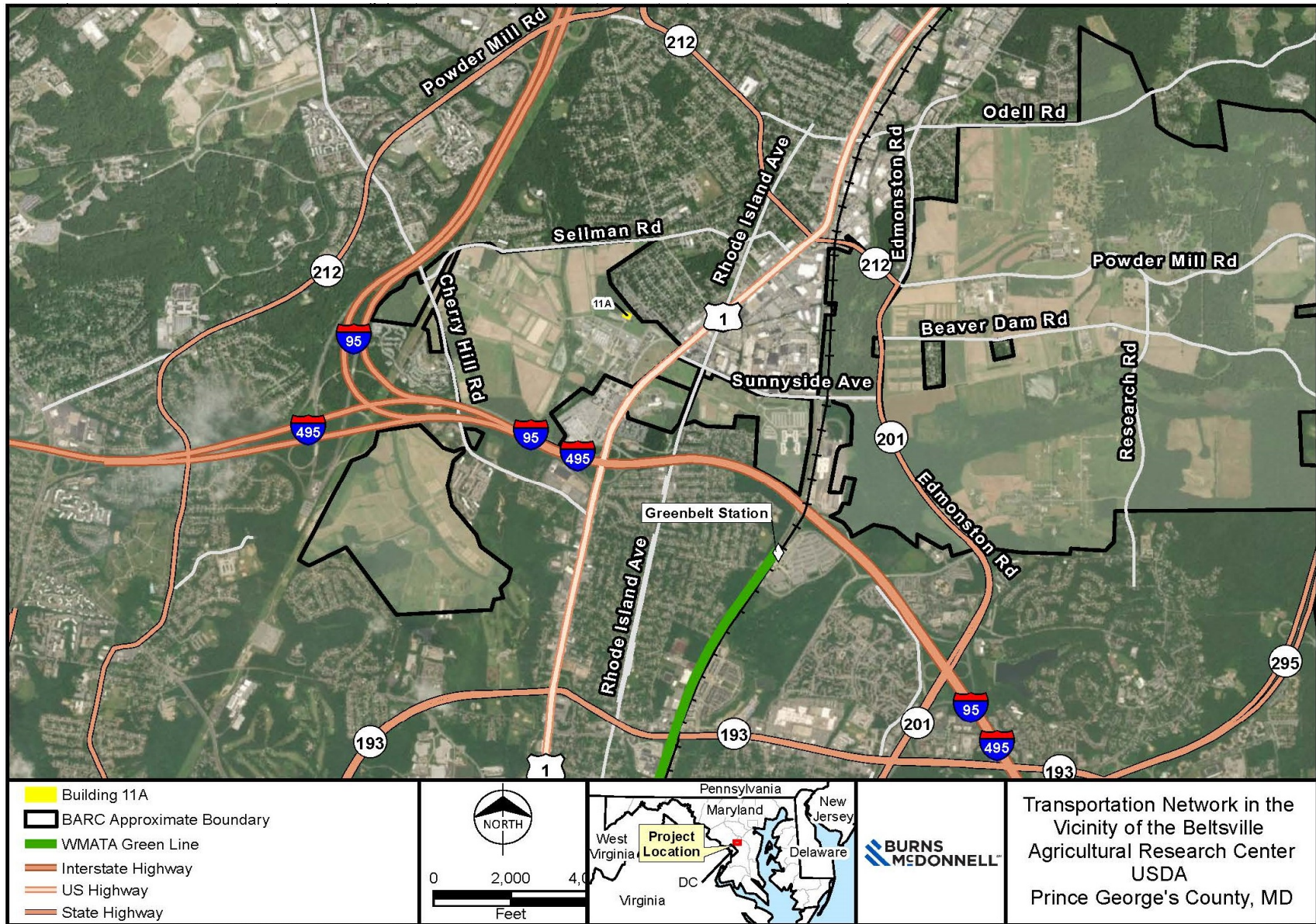
3.7.1 Affected Environment – Transportation

The primary roads providing access to and within the North Farm and to Building 11A are shown on Figure 3-4 and described below:

- Baltimore Avenue (U.S. 1) runs generally north-south between the North Farm and the Linkage Farm, providing access to the North Farm from the west. It provides access to various BARC administrative buildings located on the North Farm and serves as the main entry point to the BARC campus.
- Cherry Hill Road provides access to the North and South Farms from I-495 along the western edge of the facility. Cherry Hill Road runs along the western boundary of the North Farm and intersects Sellman Road at the northwest corner of the North Farm. Sellman Road runs adjacent to the north boundary of the North Farm. To the south, Cherry Hill Road intersects Buck Lodge Road (accessible only to authorized personnel), which provides access through the South Farm.
- Two main roads provide access to Building 11A: 1) Sellman Road via E Line Road, to North Drive to the north, and 2) U.S. 1 via Circle Road, to 1st Street, to North Road to the south.

Washington Metropolitan Transit Authority (WMATA) and the Regional Transportation Agency (RTA) of Central Maryland provide bus service near BARC and have multiple routes that cross and run adjacent to the BARC campus. These routes provide access to the Central, Linkage, and North Farms (WMATA, 2020). The USDA also provides a limited shuttle service for BARC employees that connects to the WMATA Greenbelt Metro Station and makes stops at several BARC building locations (USDA, 2016).

Figure 3-4: Transportation Infrastructure Servicing the North Farm and Building 11



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/15/2020

3.7.2 Environmental Consequences – Transportation

3.7.2.1 Proposed Action Alternative

The Proposed Action Alternative would have no effect on the main roadway system providing access across the BARC campus and would also not affect WMATA bus service or the BARC employee shuttle service that operates on BARC roadways.

In the short term, minor effects on traffic traveling in the vicinity of Building 11A would occur during demolition as heavy trucks and other equipment would be accessing the site and transporting debris to off-site disposal locations. Traffic near Building 11A would continue to be primarily for minimal routine grounds maintenance. The physical condition of the existing roads (e.g., pavement) would be assessed prior to initiating project activities. Roadway maintenance would continue, and damage caused by heavy equipment would be repaired as quickly as possible.

3.7.2.2 No Action Alternative

Under the No Action Alternative, no improvements or changes to the existing on-facility or off-facility roadway networks would occur. All infrastructure would remain in place to provide access to, from, and within the vicinity of Building 11A.

3.8 Cultural Resources

NEPA requires consideration of important historic, cultural, and natural aspects of our national heritage. Important aspects of our national heritage that may be present in the Project area must also be considered under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the implementing regulations, 36 CFR 800. This act requires Federal agencies to consider the effect that an undertaking would have on historic properties. Section 106 defines historic properties as any prehistoric or historic-age district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places (NRHP). The Federal agency must involve the State Historic Preservation Office (SHPO) and other consulting parties in the Section 106 process.

The NHPA mandates that agencies perform the following actions:

- **Initiate the Section 106 process** through agency coordination with the SHPO and/or Tribal Historic Preservation Office (THPO).
- **Identify historic properties** that may be affected by the project, including those either listed in the NRHP or determined through a consensus process to be eligible for listing in the NRHP.
- **Assess adverse effects** including the nature and extent of the expected effects on the qualities of the property that resulted in its listing in the NRHP or the determination that it is eligible for listing in the NRHP.
- **Resolve adverse effects** by considering measures to avoid, minimize, or mitigate those effects.

Building 11A (MIHP #PG: 61-87) is within the boundaries of the North Farm. The entire BARC campus, recorded in the Maryland Inventory of Historic Places (MIHP) as PG: 62-14, is a historic district (Figure 3-5) determined eligible for inclusion in the NRHP in 1998. The period of significance for the facility and its contributing resources ranges from its inception in 1910 to its reclassification as a regional center in 1984. The Determination of Eligibility for the district states:

The BARC is eligible under Criterion A as an important site which reflects the development of a national center for agricultural experimentation and testing. It is the main research facility of the U.S. Department of Agriculture and is the leading and most diversified agricultural research complex in the world... The diversity of the scientific research conducted at BARC has influenced

many aspects of 20th century living for the farmer as well as the consumer. The history and development of the agricultural research facility reflects New Deal policies and programs. The Beltsville Agricultural Research Center is also eligible under Criterion C. Because the mission of the facility has remained constant over the years, the landscape reflects a strong level of integrity... Contributing elements of the landscape include major paved roads, including Powder Mill Road, minor service roads, field and research crops, pasture lands, seasonal ponds, forests, sustainable meadows, other landscape features, and buildings (Farris, 2017a).

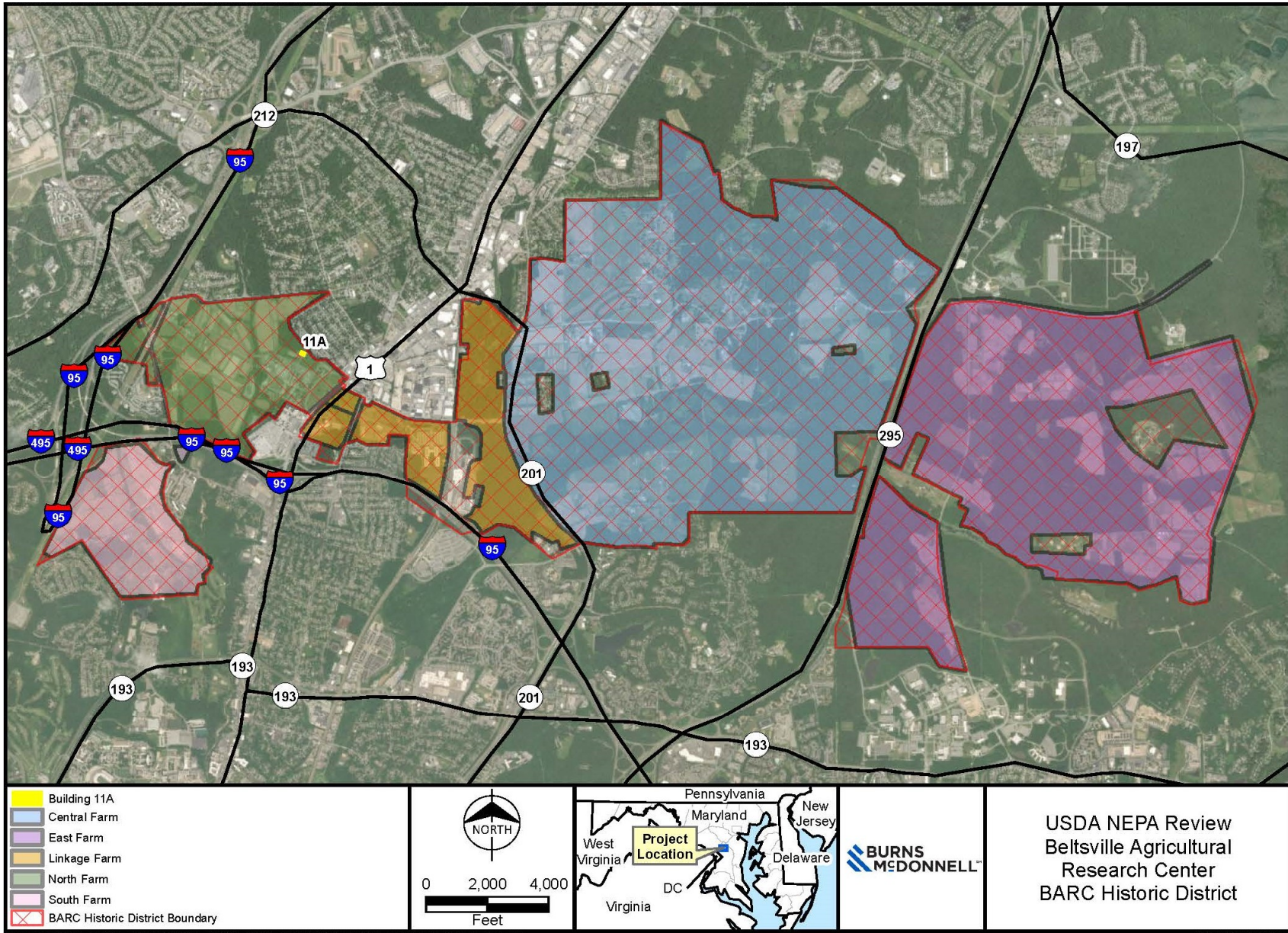
3.8.1 Affected Environment – Cultural Resources

Building 11A comprises the only cultural resource documented in association with the proposed project. It is eligible for NRHP inclusion as a contributing feature of the NRHP-eligible BARC Historic District. Building 11A (MIHP #PG: 61-87) is a circa 1970 laboratory building (reportedly finished in 1974 despite the 1970 cornerstone). The modern building exhibits elements of both the International and Brutalist styles and is distinctive in form and styling for the research facility. It served as a bioscience research center during its tenure of operation. Building 11A was constructed during the period of significance for the facility and represents a time of decentralization at the facility as identified in the district's significance statement. Beginning in the 1950s and continuing through 1984, Federal funding and focus spread to the establishment and support of State research facilities, eventually resulting in BARC becoming a regional rather than national research center (Farris 2017b). The building was constructed two years prior to a significant reorganization within USDA, though it remained in use until 2014 when it was vacated due to environmental problems. It was abandoned in place and is currently slated for demolition.

In 2020, USDA determined the building contributed to the BARC historic district, and the MHT concurred (Appendix B). The MHT serves as the State Historic Preservation Office in Maryland. It is NRHP eligible as part of the district under Criterion A for its representation of the Federal role in agricultural research and under Criterion C as a distinctive example of its form, style, and type at the BARC campus and for its association with the renowned architecture firm of RTKL Associates, Inc (Harris, 2020).

The review of Maryland's Cultural Resources Information System *MEDUSA* Identified 36 previously recorded archeological sites and 27 previously conducted cultural resources surveys within the BARC boundary. No sites are located within 1,000 feet of the subject building. Archeological resources are discussed in Section 3.8.1.1.

Figure 3-5: BARC Historic District



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 12/7/2020

3.8.1.1 Archeological Resources

Though no archeological resources were identified within proximity to Building 11A, the surrounding area has not been surveyed. The nearest known archeological site is approximately 0.25 mile to the northwest and consists of a Late Archaic/Early Woodland base camp and procurement site. A Burns & McDonnell archeologist reviewed USGS topographic quadrangle maps and the USDA NRCS *Soil Web* to assess the potential for prehistoric archeological sites within the vicinity of Building 11A. When assessing potential for previously unrecorded prehistoric resources, topography and the availability of raw material, water, and subsistence resources are taken into consideration. Geological processes in the immediate area are also examined. These processes are considered important because geologic events may protect the integrity of an archeological site by burying it within deep sediments, or alternatively, destroy it through erosional processes.

Typical locations of prehistoric archeological sites could include water crossings, stream confluences, drainages, alluvial terraces, floodplains, upland knolls, and areas where lithic or other subsistence resources could be found. The proximity of Building 11A to previously recorded archeological sites, and the presence of Little Paint Branch Creek approximately 1,300 feet to the west, indicates archeological site probability in the Project vicinity is high. Soils in the vicinity are mapped as Russet-Christiana complex and Sassafras and Croom series soils (NRCS, 2020). Russet-Christiana complex formed in sandy to clayey fluviomarine deposits on uplands and side slopes in the Coastal plain. Similarly, Sassafras and Croom series soils formed in loamy and gravely fluviomarine sediments on upland fluviomarine terraces, flats, and relict stream terraces (NRCS, 2020). While these landforms likely predate human occupation, the position of Building 11A at the base of three converging uplands suggests soils around Building 11A have potential to harbor near-surface cultural deposits. However, archeological deposits immediately adjacent to building 11A, if present, would likely be disturbed from clearing and construction of the BARC campus.

3.8.2 Environmental Consequences – Cultural Resources

3.8.2.1 Proposed Action Alternative

Under the Proposed Action Alternative Building 11A would be demolished, including all associated systems and utility infrastructure above and below ground. As the building has been determined eligible for the NRHP as a contributing building to the NRHP-eligible BARC historic district, the Proposed Action would adversely affect this resource. Under Section 106 of the NHPA, an adverse effect to a historic (NRHP-listed or eligible) property occurs when an undertaking would “alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Physical destruction of or damage to all or part of a historic property constitutes an adverse effect under Section 106. As a result, the proposed demolition of Building 11A constitutes an adverse effect to the resource and to the NRHP-eligible historic district to which it contributes. As demolition plans have not been formalized, the area of potential effects (APE) for the undertaking is currently assumed to be limited to the building footprint and an area sufficient to allow removal of associated buried foundation or utility components.

As per the NHPA, USDA-ARS is required to continue consultation to resolve adverse effects to the buildings and associated district. USDA will continue consultation with MHT, identify and involve other potential consulting parties, and notify the Advisory Council on Historic Preservation (ACHP) to determine if they would like to participate in the consultation process. The undertaking is part of a campus-wide and phased program of building demolition and redevelopment. As a result, USDA-ARS intends to develop a Section 106 Programmatic Agreement (PA) using the procedures outlined in § 800.6 to minimize and mitigate adverse effects to the resource and the district by building demolition activities. The PA will

address definition of APEs for demolition and construction activities, additional identification tasks required to comply with Section 106, agency coordination requirements, and mitigation commitments per undertaking or resource type. Resolution of the adverse effect to Building 11A will be addressed by including it in the PA. Specific mitigation required to offset the loss of Building 11A has not been determined at this time.

Regarding archeological resources, the APE is currently limited to the footprint and immediate vicinity of Building 11A, and as a result, direct impacts to archeological resources are not anticipated. However, as demolition plans are formalized and areas within the vicinity of the building subject to direct impacts from demolition and construction staging activities are identified, USDA will coordinate with MHT and consulting parties as outlined in the PA to determine appropriate APEs and identification methods as required to comply with Section 106.

3.8.2.2 No Action Alternative

No excavation or disturbance of native soils (previously undisturbed) would occur; therefore, any remaining archeological resources present on the building sites would not be disturbed. The building would remain as they are today and continue to pose a substantial safety, security, and maintenance risk to ongoing services at BARC. Therefore, the No Action Alternative would not affect archeological resources.

3.9 Land Use

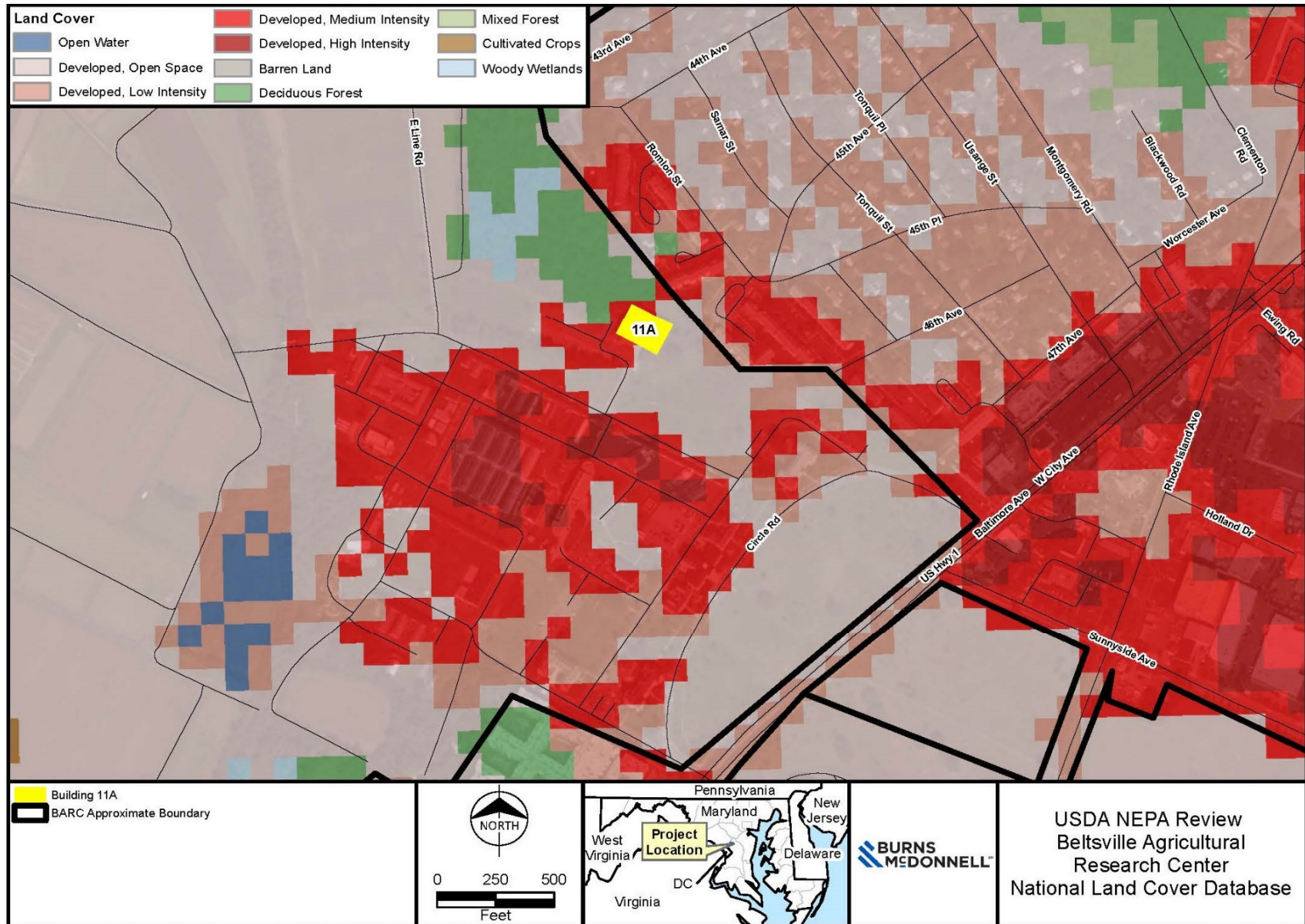
The BARC campus has been in use by the USDA as an agricultural and research center since it was purchased by the agency in 1910. In the 1930s, the CCC completed extensive land improvement and construction projects on the property. Over time, all of USDA's research facilities previously located in Bethesda, Maryland; Arlington, Virginia; and Washington, DC were transferred to this site. By 1942, the facility was known as BARC and was, and continues to be, USDA-ARS's primary research facility (USDA, 2018b). ARS's greatest concentration of agricultural research programs nationally are housed at the BARC campus. The general land use at BARC has remained consistent throughout its history (USDA, 1996). The dominant land cover of the BARC campus consists of crop and pasture lands, forests, and wetlands. Developed areas, including buildings and manmade structures, account for approximately 6.5 percent of the total land cover. Table 3-6 presents the land cover classifications of the BARC campus and Figure 3-6 shows land cover adjacent to Building 11A.

Table 3-6: BARC Facility Land Cover^(a)

Land Cover Classification	Acres	Percent
Developed, Open Space	2,017.6	31.2
Forested	1,894.8	29.3
Hay/Pasture	888.6	13.7
Wetland	789.1	12.2
Cultivated Crops	384.8	5.9
Developed, Low Intensity	280.8	4.3
Developed, Medium to High Intensity	140.9	2.2
Undeveloped Herbaceous or Barren Land	62.1	1.0
Open Water	11.8	0.2

(a) MRLC (2016)

Figure 3-6: Building 11A Land Cover



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/15/2020

Current zoning of the BARC campus is largely designated as reserved open Space (R-O-S) for over 99 percent of the facility area. Small areas, less than one percent each, are zoned as open space (O-S) and rural residential (R-R) (USDA, 2018b). The Prince George's County Code of Ordinances defines the purpose of the R-O-S zoning designation to be encouragement of protection of large areas of open space, trees, and agriculture and to protect scenic and environmentally sensitive areas. It allows for non-intensive or passive recreational uses, and a limited range of public and agricultural uses. The purpose of the O-S zoning designation is to allow for low-density development and appropriate use of natural resources, while preserving the ecological integrity of the area. The R-R zoning designation is intended to allow for appropriate planning and expansion of one-unit residential lots while maintaining the preservation of open spaces and trees to the extent possible (Prince George's County Code of Ordinances, 2019). The current land uses and activities of the BARC campus are in alignment with current zoning designations.

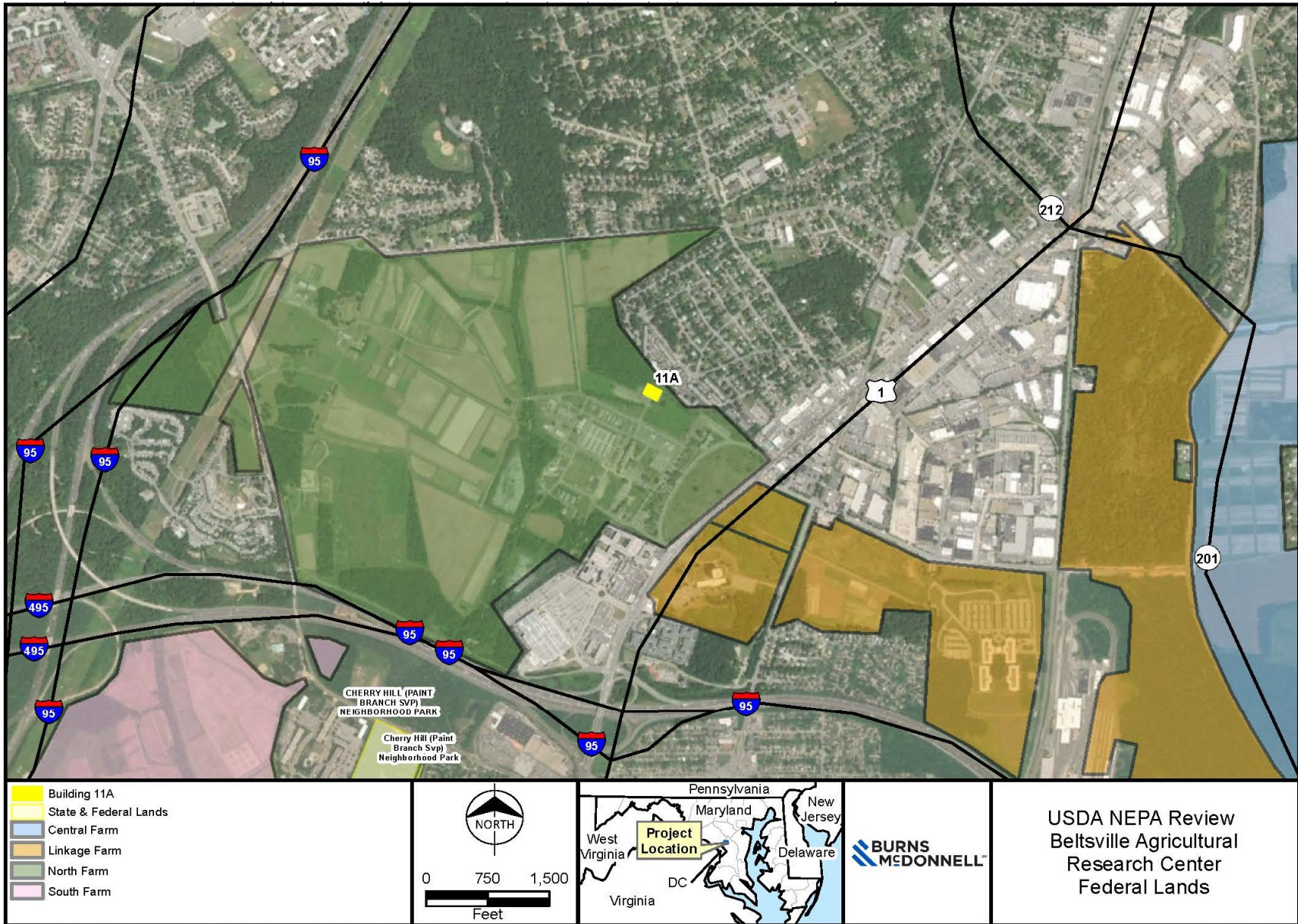
3.9.1 Public and Federal Lands

Multiple Federal lands and public recreational facilities occur directly adjacent to the BARC campus, and additional lands and facilities in the region surrounding BARC. Federal lands and recreational facilities within the vicinity of BARC listed below:

- **Patuxent Research Refuge:** The Patuxent Research Refuge, managed by the USFWS and the only national wildlife refuge established to support wildlife research, is adjacent to the eastern boundary of the East Farm. It was established in 1936 and has grown from the original 2,670 acres to the present size of 12,840 acres, encompassing land formerly managed by the Department of Agriculture and Department of Defense (USFWS, 2019).
- **Goddard Space Flight Center:** Goddard Space Flight Center is adjacent to the southern boundary of the East Farm. Established in 1959, it is managed by the National Aeronautics and Space Administration (NASA) and is the agency's first and largest space research center (NASA, 2020).
- **Baltimore-Washington Parkway:** The Baltimore-Washington Parkway is a 29-mile highway connecting Baltimore, Maryland and Washington, DC, and is managed by the National Park Service (NPS) and has been in operation since 1954. A segment of the parkway runs between the Central and East Farms (NPS, 2017).
- **Cherry Hill Neighborhood Park:** Cherry Hill Neighborhood Park, a small local community park that includes a baseball field, basketball court, and playground, is adjacent to the eastern boundary of the South Farm, just south of I-495.
- **City of Greenbelt Observatory:** The City of Greenbelt Observatory is a small local community observatory utilized primarily by residents and astronomy hobbyists. It is across MD 295 from the southwestern portion of the East Farm.
- **University of Maryland Astronomy Observatory:** The observatory is a teaching and research facility and allows public access at designated times. The observatory and lecture hall were built in 1963 (UMD, 2020).

Cherry Hill Neighborhood Park is the nearest public land to the North Farm and is approximately one mile south of Building 11A. Figure 3-6 shows the location of Cherry Hill Neighborhood Park.

Figure 3-7: Federal Lands and Recreational Facilities



Source: USDA, FEMA, USFWS NWI, USGS, ESRI, Burns & McDonnell Engineering Company, Inc.

Issued: 9/15/2020

3.9.2 Affected Environment – Land Use

Building 11A is currently vacant but previously supported agricultural and research activities at BARC, either directly by housing laboratory and office facilities, or indirectly through use as garages or other storage facilities. Land use types adjacent to Building 11A includes forest, developed, open space, and medium intensity development.

3.9.3 Environmental Consequences – Land Use

3.9.3.1 Proposed Action Alternative

Implementation of the Proposed Action Alternative would result in the removal of a vacant and deteriorating building once used to support various research programs at BARC. Removing the building, its supporting infrastructure, access road, and parking areas would convert a small pocket of previous development to open undeveloped lawn. USDA-ARS would determine if this area would be a candidate for redevelopment or could be allowed to revert to native forest or meadow depending on location and surrounding dominant cover type. The Proposed Action Alternative would result in no direct effects on the public and Federal lands located adjacent to or near the BARC campus.

3.9.3.2 No Action Alternative

Under the No Action Alternative, no changes in land use or land cover would occur. The building would not be removed and may eventually collapse, and the site would be colonized by invasive and native species.

3.10 Socioeconomic Resources

3.10.1 Affected Environment – Socioeconomic Resources

During 2018, BARC employed approximately 750 people, including scientists, professional staff, administrative and facilities support, and visiting scientists and students (USDA, 2018b). This workforce represents a relatively small portion of the 2018 Prince George's County Maryland estimated population of 909,308 (U.S. Census Bureau [USCB], 2018) and 2018 average estimated labor force of 504,423. (U.S. Department of Labor, Bureau of Statistics, 2019).

The population of Maryland increased by 4.7 percent from 2010 to 2018. The population growth rates of Prince George's County and Beltsville were higher than the Statewide average over the same period, at 5.3 percent and 6.7 percent, respectively. However, the population of Prince George's County is projected to grow at an average annual rate of 0.4 percent from 2018 to 2030, slower than the projected State population growth rate of 0.7 percent annually over that same period.

3.10.1.1 Environmental Justice

EO 12898, *Federal Action to Address Environmental Justice in Minority and Low-Income Populations*, was passed to focus the attention of Federal agencies on human health and environmental conditions in minority and low-income communities. Environmental justice analyses identify disproportionate placement of high and adverse environmental or health effects from proposed Federal actions on minority or low-income populations and identify alternatives that could mitigate such effects.

The Proposed Action would occur completely within the interior of the BARC campus, in an area void of residential development and of the presence of low-income or minority populations; therefore, further analysis under this category is not warranted.

3.10.1.2 Protection of Children

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires Federal agencies to evaluate any Federal action to determine whether the action would disproportionately affect children. Children differ biologically and behaviorally from adults in ways that often make them more vulnerable to environmental health and safety risks during their development and may increase their exposure and susceptibility to pollutants (EPA, 2020c).

The Proposed Action would occur completely within the interior of the BARC campus, in an area void of residential development with facilities that support children's activities such as schools, daycare facilities, hospitals, parks, and playgrounds; therefore, further analysis under this category is not warranted.

3.10.2 Environmental Consequences – Socioeconomic Resources

3.10.2.1 Proposed Action Alternative

Under the Proposed Action Alternative, short-term negligible beneficial economic impacts would occur because of a temporary increase in construction workers hired and the local purchasing of construction supplies. The Proposed Action would not affect local and regional sales volumes, income, employment, or the local tax base. Additionally, because the Proposed Action Alternative would occur entirely within the interior of the BARC campus, the Proposed Action Alternative would not result in any increase in population, would have no effect on public services (e.g., fire protection, police enforcement, medical services, education, etc.), and would not directly, indirectly, or disproportionately affect low income, minority, or child populations. Overall impacts to socioeconomics and environmental justice would be negligible and further analysis has been dismissed.

3.10.2.2 No Action Alternative

Under the No Action Alternative, employment levels at the BARC campus would remain largely unchanged and all supporting services would operate as normal.

3.11 Human Health and Safety

Building 11A, like many buildings on BARC, is in a state of disrepair. The building has sat vacant for more than seven years and the lack of maintenance has added to the deteriorated condition of the building, particularly the interior.

3.11.1 Affected Environment – Human Health and Safety

Building 11A is a three-story building with a basement. The building is of reinforced concrete frame construction and is clad in brick veneer in a running bond pattern over concrete masonry unit walls. The building forms a square when viewed from above with an open central courtyard on the first level. Climate control for the building includes steam heat, gas heat, and a refrigerant-based air conditioning system. Building utilities include steam, water, gas, and electricity. A comprehensive assessment of the hazardous materials contained in Building 11A was completed on November 13, 2020; results presented in the following section (3.11.2.). Based on the HMA, regulated materials found include: asbestos containing building materials, electrical waste in the form of electrical cabinets, panels, circuitry, etc.; computers and monitors; refrigerants in 30 to 40 climate-controlled chambers and refrigerator units; refrigerants in the whole building HVAC system; batteries in exit signs; mercury and PCBs present in fluorescent lights and ballasts; aerosols in 10 to 20 containers; lubricant and hydraulic oil; fire extinguishers; and compressed gasses in 5 to 10 cylinders.

3.11.2 Environmental Consequences – Human Health and Safety

3.11.2.1 Proposed Action Alternative

Under the Proposed Action Alternative, demolition plans would be developed according to the comprehensive assessment of building materials. Hazardous materials identified at Building 11A would be handled and disposed of according to applicable State and Federal regulations. All hazardous materials would be removed and disposed of offsite at an approved TSD. The following descriptions identify hazardous materials that are known to be present, based on the completed assessment and a preliminary site review, and provides a summary of applicable regulations and proper handling and disposal for each material type. Depending on the type of material present, exposure by unprotected workers will be minimized and all appropriate precautions will be taken to protect workers prior to investigating each site and during demolition.

Used Oils: Oil-containing equipment at the site includes transformers, pumps, tanks, motors, compressors, piping, hydraulic hoses/pipes, filters, door closers and electrical equipment. Locations and quantities identified are detailed in the HMA. Used oils will be drained and collected from oil-containing equipment and tanks. Oils will be characterized for disposal or recycling based on their constituents. If used oil is characterized as non-hazardous, containers will be labeled as “Non-Hazardous Waste-Used Oil” and recycled at a licensed facility. Used oil recycling is governed under 40 CFR 279 and COMAR 26.13.10.

Polychlorinated Biphenyls (PCBs): PCB containing materials in Building 11A include fluorescent lighting ballasts, starters, and high intensity discharge fixtures, small transformers, capacitors, ballasts, etc., PCB-containing building materials (i.e., caulk, glazing, paint, mastics, etc.), and porous materials that may have been impacted by residual PCB-containing materials. PCB oil found in liquid form such as fluorescent light ballasts will be collected prior to demolition, processed at a licensed recycling facility to remove the oils, and then the oils will be destroyed by incineration at a licensed disposal facility. PCBs found in bulk product form such as a minor constituent of paints or caulks at less than 50 mg/kg concentration will be disposed of as non-hazardous solid waste; these products are considered an excluded product under 40 CFR 761.3. Oils and bulk materials having concentrations of PCBs greater than or equal to 50 mg/kg must be disposed in accordance with the Toxic Substances Control Act (TSCA). PCB oil and bulk product disposal is governed under 40 CFR 761.6. Disposal options include: an EPA-approved incinerator, an EPA-approved chemical waste landfill, or an EPA or State-permitted Resource Conservation Recovery Act (RCRA) landfill. Maryland follows Federal regulations for handling, marking, treating, storing, and disposing of PCBs under 40 CFR 761. In the State of Maryland, PCB containing lighting ballasts are regulated as universal waste, discussed below.

Asbestos: According to the HMA Building 11A includes approximately 124,175 square feet of asbestos-containing materials. Asbestos-containing materials will be removed by a Maryland-licensed asbestos abatement contractor prior to the start of demolition activity that may disturb them. A Maryland-accredited consultant will be contracted to provide oversight and air monitoring during asbestos abatement. Daily and final air clearance monitoring will be conducted. Asbestos-containing materials will be placed in lined, sealed, impermeable, and labeled containers for disposal. Asbestos-containing materials will be disposed of at a licensed disposal facility.

Lead-based Paint: A limited lead-based paint inspection was conducted during the HMA. Based on the inspection, no painted surfaces were found to have levels of lead pigments greater than 0.7 mg/cm², the regulatory level for Maryland Department of Environment.

Refrigerants: 47 refrigerant-containing items were identified at the site in the forms of building wide HVAC mechanical system, independent split unit air conditioning units, refrigerators, freezers, and water fountains (coolers). Chlorofluorocarbons (CFCs) and other refrigerant gases will be removed and

documented per US Code title 42 subsection 7671 (Clean Air Act), and 40 CFR Part 82, Protection of Stratospheric Ozone. Removed CFCs will be collected in a labeled gas cylinder for transport and recycling at a licensed recycling facility. Refrigerant management will be conducted by an EPA-certified refrigerant reclaimer.

Universal Wastes: Universal wastes are a subset of hazardous wastes, which have less-stringent management requirements. Universal wastes handling and disposal are regulated under 40 CFR 273, and COMAR 26.13. Universal wastes occur at the facility in the form of light bulbs, mercury containing equipment, batteries, aerosol cans, and pesticides. Light bulbs will be removed intact and placed in labeled containers for recycling at a licensed universal waste facility. Batteries will be sorted by class (i.e., lead acid, nickel, cadmium, lithium, etc.) and packaged in labeled containers for recycling at a licensed universal waste facility. Mercury-containing devices (ampoules) will be removed intact and placed into Department of Transportation (DOT)-approved containers. Mercury-containing devices will be labeled “Universal Waste – Mercury-Containing Devices.” Universal wastes will be transported for recycling at a licensed universal waste facility

Electronic Waste: Electronic waste is noted throughout Building 11A, including computers, monitors (CRT and flat screen), printers, electrical cabinets, switchgear, testing instruments, radios, etc. Electronic waste will be recycled at a licensed electronic waste processing facility.

Scrap Metal: Scrap metal, including ferrous and non-ferrous metals, will be segregated by material type and recycled.

Construction and Demolition (C&D) Debris: C&D debris in the form of concrete, drywall, wood, windows, and other non-hazardous materials will be transported offsite and disposed of at a licensed regular solid waste disposal facility. Clean, unpainted concrete and brick may be crushed on site and used as foundation backfill.

Demolition, abatement, and remediation plans will be developed by BARC and contractors prior to demolition activities.

3.11.2.2 No Action Alternative

As noted previously, the building and the materials within and around it would continue to deteriorate, lending to the continued release of hazardous materials into the environment under the No Action Alternative.

4.0 CUMULATIVE IMPACTS, AGENCY COORDINATION, AND SUMMARY OF IMPACTS

4.1 Cumulative Impacts

The CEQ regulations for implementing NEPA require the assessment of cumulative impacts in the decision-making process for Federal projects. Cumulative impacts are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts for each resource directly or indirectly affected by one or both alternatives are addressed in this section. Time interval and physical distance between the actions considered are important in determining the potential for cumulative impacts. For the purposes of this Draft EA, a 0.25-mile buffer around the periphery of Building 11A was considered for the analysis of cumulative impacts.

Past Actions – Past actions that may contribute to cumulative impacts in one or more of the analyzed resource topic areas include: previous clearing of land for agricultural development and construction or demolition of onsite buildings and facilities, as well as adjacent buildings, roadways, utility lines, and other infrastructure. Past actions also include agricultural research activities previously conducted by USDA-ARS.

Present Actions – Present actions that may contribute to cumulative impacts in one or more of the analyzed resource topic areas include: traffic on nearby roadways and any activities associated with adjacent public or private properties, and population growth. In 2018, USDA-ARS prepared an EA for the installation of a solar array on BARC. Solar arrays would be installed at 60 sites across the BARC campus. The arrays would be leased to an Independent Power Producer (IPP) [Energy Savings Performance Contract] to help USDA-ARS meet various Federal sustainability goals and maximize renewable energy production to support ongoing operations at the BARC campus. Approximately nine potential solar panel installation sites are located within 0.25 mile of Building 11A (USDA 2018).

Internal Reasonably Foreseeable Future Actions – USDA-ARS is completing NEPA documentation and preparing a Section 106 Programmatic Agreement for the demolition of numerous buildings across the BARC campus to support their ongoing redevelopment program. USDA-ARS will also be conducting an inventory of the existing roadway infrastructure across BARC to assess the needs for ongoing and future repairs and replacement to support the redevelopment program. These actions would require clearance under NEPA and require approval of relevant Federal and State agencies. Individual redevelopment projects, as proposed, will be assessed in terms of their effects on the local environment by the appropriate lead agency.

External Reasonably Foreseeable Future Actions – Reasonably foreseeable future actions external to the BARC campus include continuation of all present actions and future actions that may include planned future land development and development of the proposed superconducting magnetic levitation railway system (SCMAGLEV) high speed rail corridor between Baltimore and Washington DC, also referred to as the rapid rail.

In 2020, the Bureau of Engraving and Printing (BEP) is to acquire approximately 100 acres within BARC to develop a new production facility to replace their current facility in Washington DC. The proposed facility will support BEP's important mission of printing United States paper currency and other Federal security products. The USACE, working on behalf of the BEP, initiated the scoping process for the proposed project in November 2019 and intends to complete an EIS by 2021. Because the USACE is only in the initial study phases, no information is available to assess the potential cumulative effects of that proposed development in combination with the USDA-ARS's proposed demolition of Building 11A at BARC.

4.1.1 Proposed Action Alternative

4.1.1.1 Geology, Topography, and Soils

Topography, geology, and soil impacts are site-specific and not affected by cumulative development in an area, except where soil erosion may contribute to degradation of water quality. With the implementation of soil erosion and sediment control measures, the Proposed Action Alternative would likely result in negligible to minor adverse soils impacts from the implementation of the Proposed Action and would not incrementally cause a significant impact, regardless of other actions.

4.1.1.2 Water Resources and Wetlands

Continued livestock and agricultural research could result in adverse impacts on water resources if not managed properly by increasing the amount of sediment and stormwater entering the facility streams and wetlands. The resources currently filter surface water flows before they reach the Anacostia River and eventually the Chesapeake Bay. Increased development on the facility would increase the demand for groundwater and the amount of impervious surface on the facility, potentially increasing stormwater flows. New development may have to include pervious pavement, filter strips, and green roofs to support the goal of achieving the 20 percent reduction in impervious surface on the facility by 2025. In the context of current and reasonably foreseeable actions on the facility, the Proposed Action Alternative is not anticipated to incrementally cause significant adverse effects on water resources in the area.

4.1.1.3 Biological Resources - Protected Species

Through contact with Federal and State agencies, BARC has no records of threatened or endangered species on or adjacent to Building 11A nor elsewhere on the BARC campus. However, BARC would minimize and avoid where practicable impacts on biological resources under the Proposed Action. Demolition activities are not anticipated to affect native habitats or protected species present on the site. It is anticipated that the Patuxent Research Refuge, Greenbelt Park, and other area open spaces would be protected from development and continue to provide habitats that support the biological diversity of the area. Therefore, in the context of current and reasonably foreseeable actions on the project site, the Proposed Action Alternative is not anticipated to incrementally cause significant adverse effect to biological resources in the area.

4.1.1.4 Air Quality

Because the activities and developments anticipated at BARC would be like prior land uses and existing adjacent uses, the Proposed Action Alternative would not result in a substantial increase in long-term vehicle traffic. Potential redevelopment of the areas where the building was removed may increase traffic volumes across the North Farm depending on the type or research or business provided. Because of the rural nature of North Farm and its surroundings, and that potential growth is limited at BARC by the requirements of the MS4 permit and need to reduce impervious cover by 2025, it is not anticipated that the Proposed Action, in combination with any present or reasonably foreseeable future actions, would cause vehicle traffic and resulting emissions to exceed the established *de minimis* thresholds.

4.1.1.5 Noise

Overall development of the BARC campus is limited due to the requirements of the MS4 permit and the goal to reduce impervious area by 2025. Short-term noise impacts would continue to occur at BARC associated with the Proposed Action (phased over time), the construction of the solar arrays, and other ongoing activities at the facility. Traffic noise is not anticipated to increase as no roadway capacity improvements are proposed for roads on the facility. It is not anticipated that the Proposed Action in combination with any present or reasonably foreseeable future actions would create events that would trigger high, long-term, non-abatable noise levels on the facility.

4.1.1.6 Utilities and Infrastructure

No improvements would be made to the existing utilities or infrastructure systems that serve the BARC campus. Under the Proposed Action, some aged and deteriorated utilities would be removed, while the remaining primary service lines would remain intact. The proposed solar array project would support future sustainability of the facility leading to greater improved energy efficiency that could in turn support replacement of existing facility utilities. Additional utility and infrastructure improvements would be dependent upon the future redevelopment of areas of BARC and the corresponding utility needs.

4.1.1.7 Transportation

The Proposed Action, present, and internal reasonably foreseeable future actions would not expand or improve the existing roadway network on the facility. The proposed SCMAGLEV (also referred to as the rapid rail) will not serve BARC, Beltsville, College Park or Greenbelt. The SCMAGLEV demonstration project proposal is only designed to serve a very small population of travelers between Washington, D.C and Baltimore with an intermediate stop at the Baltimore-Washington International Thurgood Marshall Airport (BWI). The project will run below and above ground due to costs per mile, emerging just south of the BARC property and descending beneath the ground as it nears Baltimore. An EIS for the proposed SCMAGLEV project is currently being developed to determine the effect of the project on the region.

The SCMAGLEV Preliminary Alternatives Screening Report (PASR), dated January 2018, outlined the reasons the proposed BARC RSD location was dropped from further consideration. The PASR based its determination on public and agency comments and concerns, and the identified site location challenges presented in Chapter 4-Section C of the PASR.

4.1.1.8 Cultural Resources

Building 11A was determined to contribute to the BARC historic district (Appendix B). No changes in the overall setting or to other contributing elements such as the primary roadway system, agricultural fields, or native forest area would occur as the result of this or other current actions. An additional assessment of the building, the remaining setting, and overall character of the facility would be assessed to determine what effect may occur on the district's continued designation. Through ongoing coordination with MHT, mitigation would be identified to address any adverse effect that may occur and will be provided for in the developing Section 106 Programmatic Agreement.

4.1.1.9 Land Use

The generalized pattern of land use at BARC is anticipated to undergo little change with implementation of current and reasonably foreseeable future actions. The area around BARC has changed little in the past 10 to 15 years but may be under pressure to develop as growth continues in the region over time and with the continued extension of regional and commuter rail services, including the proposed MAGLEV into the region. The Proposed Action, in combination with current and other reasonably foreseeable future actions, is not anticipated to have an adverse effect on land use.

4.1.1.10 Socioeconomic Resources

The Proposed Action and other current and reasonably foreseeable actions would not adversely affect the socioeconomic setting of the BARC campus. Employment on the facility is based on the types of research present. Future redevelopment could spawn additional employment opportunities as new research or educational facilities are developed. This development would continue to be constrained by the USDA-ARS mission and ongoing compliance with the MS4 permit and other regional conservation initiatives.

4.1.1.11 Human Health and Safety

Implementation of the Proposed Action would remove a building that poses a current human health, safety, and security risk to employees and the public. Other buildings in similar states of disrepair have been removed at BARC during the past five to ten years. Other current and reasonably foreseeable future projects, including installation of solar arrays at BARC, would be implemented following current industry design requirements and safety standards. In the future, other buildings may be removed at BARC due to their condition that would also improve the overall health and safety of employees and the public.

4.1.2 No Action Alternative

Without the Proposed Action Building 11A and its infrastructure would deteriorate and release potentially hazardous substances into the air, soil, and groundwater. Existing utilities and infrastructure would also deteriorate and, like the aging building, continue to pose a safety and security risk to employees and the public. Other current and reasonably foreseeable future actions around the BARC campus would continue to be implemented.

4.2 Agency Coordination

In September-October 2019, USDA-ARS conducted agency and public scoping for the overall building demolition program proposed at BARC. USDA-ARS distributed scoping letters on September 25, 2019, indicating a comment period extending through October 25, 2019. USDA-BARC received written responses from the USFWS, the Maryland Department of Natural Resources (MDNR), and the MHT. Copies of the scoping letter and agency responses are provided in Appendix D.

USDA-ARS initiated consultation under Section 106 of the NHPA in 2015 to obtain concurrence on determinations of eligibility for the resources at BARC based on the MHT's determined that the BARC campus was eligible for listing in the NRHP as a historic district 1998. Information supporting a NRHP determination of eligibility request for Building 11A was submitted to MHT for review on October 20, 2020. On November 16, 2020; MHT concurred that Building 11A is a contributing resource to the BARC historic district. USDA-ARS and MHT are developing a Programmatic Agreement to identify and implement mitigation appropriate for removal of buildings across BARC including Building 11A.

5.0 RECOMMENDATIONS AND MITIGATION

5.1 Recommendations

The purpose of this EA is to inform decision makers and the public of the likely environmental consequences of the action proposed at BARC in Beltsville, Prince George's County, Maryland. This EA identifies, documents, and evaluates the potential effects of the demolition of Building 11A on the BARC campus. However, reuse of the site for future USDA-ARS research or redevelopment of the site by other Federal entities may occur in the future. Because the scope, extent, and timing of potential future redevelopment of this site is not defined, the effects of any redevelopment of the site are not assessed in this EA.

The purpose of the Proposed Action is to continue to reduce long-term operational and maintenance costs and BARC's impact on the Chesapeake Bay Watershed. The Proposed Action would assist USDA-ARS in accomplishing this purpose through compliance with the 2015 *Reduce the Footprint Policy* and USDA's *Real Property Efficiency Plan for Fiscal Year 2019-2023*; and BARC's municipal separate storm sewer system (MS4) permit goal of achieving a 20-percent reduction of impervious surface area by 2025. Achieving these goals would support the ongoing mission of BARC and potential redevelopment of certain BARC areas making the facility more sustainable and supportive of new and ongoing research opportunities.

Building 11A would be removed in its entirety, including the building envelope, building footings and foundations, support systems (e.g., mechanical, electrical), site utilities servicing the building, concrete pads, and associated exterior concrete walkways and paved areas. The removal of Building 11A depends on the findings of this EA. USDA-ARS considers Building 11A as not mission critical and has no need for it. After the building is removed, the site would be returned to as close to pre-development conditions as feasible, in compliance with EPA's *Technical Guidance on Implementing Stormwater Runoff Requirements for Federal projects under Section 438 of the EISA*.

Using the No Action Alternative as the baseline for assessing potential effects from the Proposed Action, the following potential issues and concerns have been identified:

- Temporary and localized, but not significant, adverse effects on soils are expected due to the amount of land disturbance required to remove the building. These effects will be further minimized through the implementation of appropriate BMPs to prevent and manage soil erosion and stormwater flows from demolition and land contouring activities.
- Temporary and localized, but not significant, effects to the adjacent mapped NWI wetland associated with Little Paint Branch. The appropriate BMPs would be implemented to prevent and manage any potential fill activities.
- Temporary and localized, but not significant, effects on air quality are expected from heavy equipment emissions and increases in fugitive dust and airborne particulates from construction and demolition-related activities.
- Adverse, but not significant, impacts to biological resources (vegetation) are expected as a result of the Proposed Action where shrub or tree required and will be minimized to facilitate building demolition and site contouring. However, any adverse effect would be mitigated through site restoration.
- Adverse, but not significant, effect to the resource and to the NRHP-eligible historic district to which it contributes. As per the NHPA, USDA-ARS is required to continue consultation to resolve adverse effects to Building 11A and the associated district. USDA-ARS will continue consultation

with MHT, identify and involve other potential consulting parties, and notify the ACHP to determine if they would like to participate in the consultation process for development of PA.

- Temporary and localized, but not significant, increases in ambient noise are expected during demolition-related activities.
- Utilities services would not be interrupted to active buildings during demolition.
- Temporary and localized, but not significant, increases in solid wastes would be generated during demolition.
- Local roadways and parking are adequate to support movement and staging of construction equipment and materials to the project site and only minor and temporary impact to traffic accessing BARC would occur during demolition and waste removal.
- Adverse, but not significant, effects on hazardous materials would occur due to their presence within Building 11A and the need to categorize, remove, and dispose of each type of material in accordance with applicable local, State, and Federal regulations.

Using the No Action Alternative as the baseline for assessing potential effects, the following findings have been identified and are not expected to be affected by the Proposed Action:

- Little Paint Branch and its floodplain are not expected to be affected by the Proposed Action because they are located relatively distant from the project site and the implementation of appropriate BMPs would protect against sedimentation, leaks, and spills. The restoration of the site to preexisting conditions would improve water quality and reduce surface water runoff.
- The threatened northern long-eared bat is not expected to be affected by the Proposed Action. Suitable habitat may be present in the wooded areas adjacent to the project site; however, the site will be surveyed for potential northern long-eared bat habitat prior to demolition.
- Land use impacts would be expected to be consistent with existing and future land use planning and increase meadow or forest and reduce mowed grass, where possible. Site restoration will be determined on an as-needed basis; however, restoration to meadow or forest is preferred where feasible and would receive the maximum stormwater credit because this habitat is the most beneficial to the Chesapeake Bay Watershed.
- Socioeconomics within the vicinity of the BARC campus are not expected to be affected by the Proposed Action. Overall impacts to socioeconomics and environmental justice would be negligible and further analysis has been dismissed.
- The Proposed Action is not expected to result in significant cumulative effects when considered along with other, known projects anticipated at the BARC Facility.

5.2 Mitigation

Although no significant impacts to the environment are anticipated, the USDA-ARS would ensure the following mitigation measures are implemented to minimize potential effects. These measures would be implemented through provisions stipulated in demolition/construction contracts. The potentially adverse environmental impacts related to the construction, operation, and dismantling of the Proposed Action could be minimized, mitigated and controlled to acceptable levels by implementation of the following measures:

- USDA-ARS will require the contractor to use dust-abatement measures, such as wetting, mulching, or seeding exposed areas, where appropriate, to address any air quality concerns.

- USDA-ARS will require the contractor to mitigate vehicle emissions impacts as much as possible by prohibiting truck idling.
- USDA-ARS will require the contractor to provide lay down (i.e., temporary material storage) areas for demolition equipment and materials within existing cleared and paved areas to minimize disturbance to existing land and vegetation.
- USDA-ARS will require contractor compliance with erosion and sediment control measures related to stabilization of disturbed areas.
- USDA-ARS will require the contractor to provide and maintain silt fencing, or other suitable BMPs, to be placed around demolition areas to mitigate erosion and sediment runoff.
- USDA-ARS will require the contractor to implement BMPs for erosion/sediment control and stormwater management to minimize impacts to the existing stormwater collection system, wetlands, and other environmental resources.
- USDA-ARS will require all necessary measures be taken by the contractor to prevent, control, and mitigate the release of oils, trash, debris, and other pollutants to air, water, and land.
- USDA-ARS will require contractors to safely handle and dispose of solid and hazardous waste in accordance with applicable local, Federal and State regulations. All hazardous materials would be removed and disposed of offsite at an approved TSDF.
- USDA-ARS will require contractors to provide appropriate health and safety training, precautions, and other protection for their workers.
- USDA-ARS will require contractors to recycle or reuse materials to the greatest extent possible, and to dispose of construction debris in accordance with local, State, and Federal waste disposal regulations.
- USDA-ARS will require the contractor to stop work and allow USDA-ARS to consult with MHT if unexpected cultural resources are found during construction activities.
- USDA-ARS will require that the transportation of demolition equipment and materials over local roads be scheduled to occur after peak traffic periods, whenever possible.
- USDA-ARS will require contractors to minimize demolition-related noise impacts by limiting demolition-related activities to the hours between 7:00 a.m. and 5:00 p.m. on weekdays.
- USDA-ARS will require that, upon commencement, demolition be executed expeditiously to minimize the period of disturbance to the affected environment.

Consideration of the activities involved in the demolition and recontouring of the building site at BARC would have no significant impacts on the quality of the human environment or on local natural resources. As a result of this EA, it is determined that an EIS is not required for the Proposed Action. In conclusion, a Finding of No Significant Impact (FONSI) is appropriate for the Proposed Action.

6.0 REFERENCES

- Andreasen, D.C., Staley, A.W., and Achmad, G. (2013). Maryland Coastal plain Aquifer Information System: Hydrogeologic Framework. Maryland Geological Survey (MGS). DNR Publication No. 12-2272013-628. Retrieved 7 November 2019 from http://www.mgs.md.gov/reports/OFR_12-02-20.pdf
- EPA. (2009). Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal projects under Section 438 of the Energy Independence and Security Act. Retrieved 6 November 2020 from <https://www.epa.gov/sites/production/files/2015-09/documents/eisa-438.pdf>
- EPA. (2010) Climate Change Indicators in the United States. <https://www.epa.gov/sites/production/files/2016-08/documents/ci-full-2010.pdf>
- EPA. (2017a). Basic Information about Air Quality SIPs. Retrieved November 2020 from <https://www.epa.gov/sips/basic-information-air-quality-sips#what-is-a-sip>
- EPA. (2017b). General Conformity Training Module 3.1: Applicability Analysis. Retrieved November 2020 from <https://www.epa.gov/general-conformity/general-conformity-training-module-31-applicability-analyses>
- EPA. (2017c). Frequent Questions about General Conformity. Retrieved November 2020 from <https://www.epa.gov/general-conformity/frequent-questions-about-general-conformity>
- EPA. (2020a). Current Nonattainment Counties for all Criteria Pollutants. Retrieved November 2020 from <https://www.epa.gov/hwgenerators/categories-hazardous-waste-generators>
- EPA. (2020b). Categories of Hazardous Waste Generators. Retrieved November 2020 from <https://www3.epa.gov/airquality/greenbook/ancl.html>
- EPA. (2020c). Protecting Children's Environmental Health. Retrieved November 2020 from <https://www.epa.gov/children>
- Executive Office of the President; Office of Management and Budget. (2015). *Management Procedures Memorandum No. 2015-01; Implementation of OMB Memorandum M-12-12 Section 3: Reduce the Footprint*. March 25, 2015.
- Farris, Loren. (2017a). Maryland Historical Trust Inventory of Historic Properties Form, Beltsville Agricultural Research Center (PG: 62-14). March 17, 2017. Prepared by AECOM. Copy on file at the Maryland Historical Trust.
- Farris, Loren. (2017b). Maryland Historical Trust Determination of Eligibility Form, Building 177B: Electron Microscope Laboratory, Beltsville Agricultural Research Center (PG 67-42).
- Federal Emergency Management Agency (FEMA). (2020a). *FEMA Flood Map Service Center. Digital Flood Insurance Rate Maps (DFIRM)*. Beltsville, Maryland. Retrieved November 2020 from: <https://msc.fema.gov/portal>
- FEMA. (2020b). The National Flood Insurance Program. Retrieved November 2020 from <https://www.fema.gov/national-flood-insurance-program>
- Harris, Brandy. (2020). Maryland Historical Trust Maryland Inventory of Historic Places Form: Bioscience Research Building; Beltsville Agricultural Research Center; Building 11A. Prepared by Burns & McDonnell. Copy on file at Maryland Historical Trust.

- Maryland Department of Agriculture (MDA). (2015). Maryland Noxious Week I.D. Factsheet. Retrieved 8 November 2019 https://mda.maryland.gov/plants-pests/Pages/noxious_weeds_in_md.aspx
- Maryland Department of Natural Resources (MDNR). (2005). Characterization of the Anacostia River Watershed in Prince George's County, Maryland. Retrieved November 2020 from https://dnr.maryland.gov/waters/Documents/WRAS/ar_char.pdf
- Minnesota Department of Natural Resources (MDNR). (2017). *Bats*. Retrieved November 2020 from <http://www.dnr.state.mn.us/mammals/bats.html>
- MDNR. (2020a). Forest Pests. Retrieved November 2020 from <https://dnr.maryland.gov/forests/Pages/programapps/pests.aspx>
- MDNR. (2020b). Maryland's Wildlife Species. Retrieved November 2020 from https://dnr.maryland.gov/wildlife/Pages/plants_wildlife/mdwllists.aspx
- MDNR. (2020c). Rare, Threatened, and Endangered Species – Plants & Animals. Retrieved November 2020 from https://dnr.maryland.gov/wildlife/Pages/plants_wildlife/rte/espaa.aspx
- MDE. (2020). Floodplain Permitting in Maryland. Retrieved November 2020 from <https://mde.maryland.gov/programs/Water/FloodHazardMitigation/Pages/permitting.aspx>
- Maryland Department of Transportation (MDOT). (2020). Maryland Transit Administration (MTA) Route MARC – Camden – Washington. Retrieved November 2020 from: <https://www.mta.maryland.gov/schedule/stops/marc-camden>
- Maryland Geological Survey (MGS). (2020a). Maryland Geology. Retrieved November 2020 from <http://www.mgs.md.gov/geology/>
- MGS. (2020b). Sinkholes. Retrieved November 2020 from http://www.mgs.md.gov/geology/geohazards/sinkhole_index.html
- Multi-Resolution Land Characteristics Consortium (MRLC). (2016). National Land Cover Database (NLCD). Available at <https://www.mrlc.gov/>
- National Aeronautics and Space Administration (NASA). (2020). Goddard Space Flight Center: About the Goddard Space Flight Center. Retrieved November 2020 from <https://www.nasa.gov/centers/goddard/about/index.html>
- National Park Service (NPS). (2017). Baltimore-Washington Parkway Maryland: Scenic Entry to the Nation's Capital. Retrieved November 2020 from <https://www.nps.gov/bawa/index.htm>
- NRCS. (2020). Web Soil Survey. U.S. Department of Agriculture, Natural Resources Conservation Service. Retrieved November 2020 from <http://websoilsurvey.nrcs.usda.gov>
- Prince George's County, Maryland. (2019) Code of Ordinances. Part 5: Residential. Sections 27-424.05, 27-425, and 27-428. Accessed November 2020 at https://library.municode.com/md/prince_george's_county/codes/code_of_ordinances
- United States Census Bureau. (2018). Geography Program: Geographic Areas Reference Manual. Retrieved November 2020 from <https://www.census.gov/programs-surveys/geography/guidance/geographic-areas-reference-manual.html>
- United States Department of Agriculture (USDA). (1996). *Beltsville Agricultural Research Center 1996 Master Plan Update Environmental Assessment*. Master Plan, USDA.

- USDA. (2016). Agricultural Research Service (ARS). The USDA Shuttle for Employees Only: Beltsville Circuit. Retrieved November 2020 from: <https://www.ars.usda.gov/northeast-area/docs/visitor-information/shuttle-service/>
- USDA. (2018). Draft Environmental Assessment for the Proposes Solar Array project at the Henry A. Wallace Beltsville Agricultural Research Center. USDA. Available at <https://www.ars.usda.gov/northeast-area/docs/draft-environmental-assessment/>
- USDA. (2020). Beltsville Agricultural Research Center (BARC). Email correspondence March 10, 2020.
- United States Department of Labor, Bureau of Statistics, 2019.
- United States Fish and Wildlife Service (USFWS). (2020a). *National Wetland Inventory*. Retrieved November 2019 from: <https://www.fws.gov/wetlands/>
- USFWS. (2020b). *IPAC – Information, planning, and conservation system*. Retrieved from <http://ecos.fws.gov/ipac/>
- USFWS. (2019). Patuxent Research Refuge, Maryland. Retrieved November 2020 from <https://www.fws.gov/refuge/Patuxent/about.html>
- United States Geological Survey (USGS). (2016a). *Beltsville, Maryland. 7.5 -Minute Series Topographic Map*. U.S. Department of the Interior.
- USGS. (2016b). *Laurel, Maryland. 7.5 -Minute Series Topographic Map*. U.S. Department of the Interior.
- USGS. (2017). Science in Your Watershed. Retrieved 07 November 2019 from https://water.usgs.gov/wsc/watershed_finder.html
- USGS. (2020a). USGS National Hydrography Dataset (NHD). U.S. Geological Survey, National Geospatial Program.
- USGS. (2020b). National Water Information System (NWIS): Mapper. Retrieved November 2020 from <https://maps.waterdata.usgs.gov/mapper/index.html>
- University of Maryland (UMD). (2020). Astronomy Observatory, Department of Astronomy. Retrieved November 2020 from <https://www.astro.umd.edu/openhouse/>
- Washington Metropolitan Area Transit Authority (WMATA). (2020). Prince George's County, Maryland Metrobus System Map. Retrieved November 2020 from: <https://www.wmata.com/schedules/maps/index.cfm?t=maps>
- Woods, A.J., Omernik, J.M., and Brown, D.D. (1999), Level III and IV Ecoregions of Delaware, Maryland, Pennsylvania, Virginia, and West Virginia: Corvallis, Oregon, U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory.

7.0 LIST OF REVIEWERS AND PREPARERS

United States Department of Agriculture, Agricultural Research Service

Tom Callsen, BARC Cartography and GIS, Facility Services

Howard Zhang, BARC Center Director

Le Ann Blomberg, BARC Assistant Director

Bill Howl, BARC SOHES Manager

Chizo Irechukwu, USDA-ARS BARC Real Properties Section, Asset and Facilities Manager

Jason Robins, NEA

Burns & McDonnell Engineering Company, Inc.

Name	Title	Education	Experience	Resource Topic(s)
Shari Cannon-Mackey, CEP, ENV SP	Sr. Project Manager, NEPA/ Environmental Planning	MLA Landscape Architecture BLA Landscape Architecture BS Fisheries & Wildlife Biology	31 years	Agency Coordination Overall Document
Tom Allemand	Project Manager, NEPA/ Environmental Planning	MS Biology BS Biology	21 years	Overall Document
Sarah Holifield	Staff Environmental Scientist	BA in Business	8 years	Site Review Affected Environment Environmental Consequences
Brandy Harris	Architectural Historian	MA Public History BA History	16 years	Section 106 Subject Matter Review
Cameron Klos	Senior Electrical Engineer	MS Electrical Engineering BS Electrical Engineering	14 years	Investigative Report Lead
Hans Hinke	Sr. Civil Engineer, Decommissioning & Demolition	MS Geological Engineering BS Geological Engineering	17 years	Demolition evaluation, hazardous materials and soil
Jay Claussen	GIS Specialist	MA Public History BA History	18 years	GIS, mapping/exhibits for document

8.0 ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Material
AOC	Area of Concern
APE	Area of Potential Effect(s)
ARS	Agricultural Research Service
AST	Above-ground Storage Tank
BARC	Beltsville Agricultural Research Center
BEP	Bureau of Engraving and Printing
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
C&D	Construction and Demolition Debris
CAA	Clean Air Act
CCC	Civilian Conservation Corps
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	Chlorofluorocarbons
CFO/AFO	Combined Feeding Operation/Animal Feeding Operation
CFR	Code of Federal Regulations
CMU	Concrete Masonry Unit
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
CWA	Clean Water Act
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Environmental Site Assessment
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FR	Federal Register
iPAC	Information for Planning and Consultation
IPP	Independent Power Producer
HUD	U.S. Department of Housing and Urban Development
LQG	Large Quantity Generator
MBTA	Migratory Bird Treaty Act
MDE	Maryland Department of the Environment

MGD	Million gallons per day
MHT	Maryland Historical Trust
MIHP	Maryland Inventory of Historic Places
msl	Mean Sea Level
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHD	National Hydrography Dataset
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWIS	National Water Information System
O ₃	Ozone
PA/SI	Preliminary Assessment/Site Inspection
Pb	Lead
PCBs	Polychlorinated Biphenyls
PEM	Palustrine Emergent Wetland
PEPCO	Potomac Electrical Power Company
PFO	Palustrine Forested Wetland
PM	Particulate Matter
PUB	Palustrine Unconsolidated Bottom
RCRA	Resource Conservation Recovery Act
SCMAGLEV	Superconducting magnetic levitation railway system
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxic Characteristic Leaching Procedure
TSCA	Toxic Substances Control Act
TSDf	Treatment, Storage, and Disposal Facility
U.S. or US	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture

USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
WMATA	Washington Metropolitan Transit Authority
WWTP	Wastewater Treatment Plant

