DRAFT BUREAU OF ENGRAVING AND PRINTING (BEP) TRAFFIC AND UTILITIES MITIGATION SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Beltsville, Maryland

April 5, 2024





US Army Corps of Engineers®

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27 S-1 PROJECT SUMMARY

28 S-1.1 INTRODUCTION

29 Pursuant to the National Environmental Policy Act of 1969 (Title 42, United States [U.S.] Code, 4321-4370f), as amended; regulations of the Council on Environmental Quality (40 Code of 30 Federal Regulations 1500-1508); and U.S. Department of the Treasury (Treasury) Directive 75-31 32 02, the Bureau of Engraving and Printing (BEP), in cooperation with the National Park Service, 33 U.S. Department of Agriculture Agricultural Resource Service, and Federal Highway Administration, has prepared an Environmental Assessment (EA) to evaluate potential 34 35 environmental effects associated with the implementation of traffic, utility, and construction-36 related improvement measures associated with the proposed BEP replacement currency production 37 facility (CPF) in Beltsville, Maryland. These traffic, utility, and construction-related measures were developed to address recommendations from the construction and operation of the 38 39 replacement CPF, which was analyzed in the Final Environmental Impact Statement (EIS) for the 40 Construction and Operation of a CPF within the National Capital Region (NCR) (Treasury 2021a). This EA will be tiered from BEP's 2021 EIS, and the analyses included in the EIS will be 41 42 incorporated into this EA by reference.

43 S-1.2 PURPOSE AND NEED

44 The purpose of the Proposed Action is to implement the traffic, utility, and construction-related

- 45 improvements as outlined in the Final EIS for the Construction and Operation of a CPF in the NCR
- 46 and as determined by design changes that have come about after the BEP 2021 EIS Record of
- 47 Decision signature. BEP 2021 EIS identified seven traffic intersections that currently have a failing
- 48 level of service (LOS) and would continue to fail during and after the construction of the
- 49 replacement CPF. These failing intersections would require various roadway improvements to
- 50 minimize delays and reduce queue lengths.

51 The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection

52 meets the applicable thresholds with the increase in traffic anticipated from the construction and

53 operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems

54 in place are sufficient to support BEP's replacement CPF at the chosen site and to support

55 construction-related laydown areas identified in the most recent CPF design.

56 S-1.3 OVERVIEW OF THE ALTERNATIVES

- 57 This EA analyzes the No Action Alternative's environmental impacts and two action alternatives
- for traffic, utility, and construction-related improvements. Under both action alternatives, the following improvements would be completed:
- Improvements at the seven intersections identified as needing improvement in BEP's 2021
 EIS: Edmonston Road at Sunnyside Avenue, Edmonston Road at Beaver Dam Road,
 Edmonston Road at Powder Mill Road, Powder Mill Road at Animal Husbandry Road,
 Powder Mill Road at Springfield Road, Powder Mill Road at Baltimore-Washington
 Parkway northbound ramps, and Powder Mill Road at Baltimore-Washington Parkway
 southbound ramps. Improvements may include, but are not limited to, lane widening,
 addition of turn lanes, addition of new signage, and addition of traffic control devices.
- Additional traffic improvements to Poultry Road, Sheep Road, and Animal Husbandry Road.

- Construction of a new entrance road for the CPF site; part of the entrance road's footprint is included in the scope of BEP's 2021 EIS.
- Construction of an approximately 1,500-foot-long gravel access road southeast of the CPF
 site to provide access to two wells at Beltsville Agricultural Research Center (BARC).
- Installation of new roadway signage along Powder Mill Road and Edmonston Road.
- Removal of rumble strips on Powder Mill Road from Edmonston Road to Baltimore Washington Parkway.
- Installation of new aboveground Potomac Electric Power Company electric lines on existing poles along both sides of Odell Road from its intersection with Edmonston Road to the CPF site. Some existing poles are in degraded condition and may require full replacement.
- Installation of new aboveground lines to provide Verizon service, running on existing poles
 from the intersection of Odell Road and Edmonston Road to the CPF site, and from
 Ellington Drive, south of Muirkirk Road, to Odell Road and west to the CPF site. Some
 existing poles are in degraded condition and may require full replacement.
- Installation of a new Washington Gas connection south of Odell Road and east of Poultry
 Road and the new CPF.
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction.
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain
 a planned bioswale.
- 90 Alternative 1 includes the construction of a new sanitary sewer line running north from the CPF

91 site and tying into the Washington Suburban Sanitary Commission (WSSC) sanitary sewer system

92 north of Odell Road.

- Under Alternative 2, the new sanitary sewer line would run southwest from the main CPF site and
 tie into the WSSC sanitary sewer system west of the Edmonston Road and Powder Mill Road
- 95 intersection.
- 96 Under both action alternatives, wastewater would be treated at the Blue Plains Advanced
 97 Wastewater Treatment Plant (WWTP), the WWTP used by BEP's existing facilities in the
 98 Washington, DC, area. BEP would pre-treat all industrial wastewater to WSSC standards in-house
- 99 prior to discharge into the WSSC system.
- 100 The Preferred Alternative is Alternative 1, as it is the most environmentally preferable of the action alternatives while still meeting project objectives. The limits of disturbance for the proposed 101 102 sanitary sewer line under Alternative 1 are smaller than under Alternative 2 and minimize impacts 103 to wetlands and surface waters. Implementation of the Preferred Alternative would result in 104 negligible or less than significant impacts to most resource areas. The Preferred Alternative would 105 result in short-term benefits to socioeconomics and long-term benefits to noise levels, protection 106 of children, transportation, utilities, and health and public safety. There would be no short-term 107 impacts to land use or the protection of children and no long-term impacts to air quality or
- 108 socioeconomics.
- 109 While Alternative 2 would have a larger footprint of impact due to the sanitary sewer alignment,
- 110 impacts to most resource areas under Alternative 2 are still negligible or less than significant.
- 111 Compared to negligible impacts under Alternative 1, Alternative 2 would result in short-term, less

- than significant impacts to climate change and greenhouse gas emissions due to increased emissions associated with the larger project footprint.
- 114 The No Action Alternative would result in no impact to most resource areas. However, there would

be negligible or less than significant impacts to the protection of children's health and public safety

116 and Environmental Justice (EJ). There would be significant impacts to transportation conditions.

117 Under the No Action Alternative, six of the seven intersections proposed for improvement would

- 118 remain at a failing LOS and existing unsafe conditions at some of the intersections proposed for
- improvement would remain. These traffic and safety concerns would disproportionately affect EJ
- 120 communities that reside in the vicinity.
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 338 following the public comment period.
- 339 Appendix A: Figures

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- 341 Appendix C: Mitigation Measures Table
- 342 Appendix D: Wetland Delineation and Forest Stand Delineation Reports
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- 347 Appendix I: Farmland Conversion Impact Rating Forms
- 348 Appendix J: Air Quality ACAM Model
- 349 Appendix K: Comment Response Matrix
- 350 Appendix L: Coordination with Federal, State, and Local Jurisdictions
- 351 Appendix L: Public Engagement

ACRONYMS AND ABBREVIATIONS

%	Percent
ACAM	Air Conformity Applicability Model
ACM	asbestos-containing material
ACS	American Community Survey
amsl	above mean sea level
AOC	Areas of Concern
APE	Area of Potential Effect
ARS	Agricultural Research Service
BARC	Henry A. Wallace Beltsville Agricultural Research Center
BEP	Bureau of Engraving and Printing
BG	Block Group
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practices
BWI	Baltimore Washington International
CAA CEJST	Clean Air Act The White House Council on Environmental Quality Climate and Environmental Justice Screening Tool Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CPF	Currency Production Facility
CT	Census Tract
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
dB	decibels
dBA	"A-weighted" decibels
DO	Director's Order
DPW&T	Department of Public Works and Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act of 2007
EJ	Environmental Justice

EJScreen	United States Environmental Protection Agency Environmental Justice Screening and Mapping Tool Executive Order
EPMs	Environmental Protection Measures
ESA	Endangered Species Act
FBI	Federal Bureau of Investigation
FDA	United States Food and Drug Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIDS	Forest Interior Dwelling Species
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
GHG	greenhouse gases
GSA	United States General Services Administration
HOA	Homeowner Association
HTMW	hazardous and toxic materials and waste
HQ	Headquarters
IPaC	Information for Planning and Consultation
LES	Limited English Speaking
LOD	limits of disturbance
LOS	level of service
M-NCPPC	Maryland-National Capital Park and Planning Commission
MUTCD	Manual on Uniform Traffic Control Devices
MBTA	Migratory Bird Treaty Act
MD	Maryland
MDE	Maryland Department of the Environment
MDNR	Maryland Department of Natural Resources
MDOT	Maryland Department of Transportation
MHT	Maryland Historical Trust
NAAQS	National Ambient Air Quality Standards
NCPC	National Capital Planning Commission
NCR	National Capital Region
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NLEB	northern long-cared bat
NOA	Notice of Availability

NOx	nitrogen oxides
NPL	National Priority List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	Ozone
OSHA	Occupational Safety and Health Administration
PEPCO	Potomac Electric Power Company
PFA	Priority Funding Area
PM	Particulate Matter
PPA	Priority Preservation Area
RA	Remedial Actions
RCMs	Regulatory Compliance Measures
RCP	Resource Conservation Plan
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROI	region of influence
RSF-A	Residential, Single-Family-Attached
SCA	Special Conservation Area
SHA	Maryland State Highway Administration
SIP	State Implementation Plan
SOx	Sulfur Oxide
TD	United States Department of the Treasury Directive
TIS	Transportation Impact Study
TPB	Transportation Planning Board
tpy	tons per year
Treasury	United States Department of the Treasury
U.S.	United States
ULSD	ultra-low sulfur diesel
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USC	United States Code
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

USGS United States Geological Survey	
USSS United States Secret Service	
VOC volatile organic compounds	
WUS Waters of the United States	
WSSC Washington Suburban Sanitary Commissi	ion
WWTP Wastewater Treatment Plant	

1. PURPOSE AND NEED FOR ACTION

355 **1.1 PROJECT BACKGROUND**

356 Pursuant to the National Environmental Policy Act (NEPA) of 1969 (Title 42, United States [U.S.] 357 Code [USC], 4321-4370f), as amended; regulations of the Council on Environmental Quality 358 (CEQ) (40 Code of Federal Regulations [CFR] 1500-1508); and U.S. Department of the Treasury 359 (Treasury) Directive (TD) 75-02, the Bureau of Engraving and Printing (BEP), in cooperation with 360 the National Park Service (NPS), U.S. Department of Agriculture (USDA) Agricultural Resource Service (ARS), and Federal Highway Administration (FHWA), has prepared an Environmental 361 362 Assessment (EA) to evaluate potential environmental effects associated with the implementation 363 of traffic, utility, and construction-related improvement measures associated with the proposed 364 BEP replacement currency production facility (CPF) in Beltsville, Maryland (MD).

These traffic, utility, and construction-related measures were developed to address recommendations expected to arise from the construction and operation of the replacement CPF, which was analyzed in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF within the National Capital Region (NCR). The EIS was completed in June 2021, and the Record of Decision (ROD) was signed in October 2021 (Treasury 2021a, Treasury 2021b). The final EIS and ROD can be found on the project website at https://www.nab.usace.army.mil/BEP/.

As stated in 40 CFR 1501.11, it is appropriate to tier an EA from a previously completed EIS when the EIS analyzes a specific action at an early stage, such as site selection, and the tiered EA analyzes subsequent actions at a later stage. In accordance with this regulation, this EA will be tiered from BEP's 2021 EIS, and the analyses included in the EIS will be incorporated in this EA by reference (hereafter referred to as BEP 2021 EIS).

The proposed replacement CPF is located on the 105-acre parcel of the Henry A. Wallace 377 378 Beltsville Agricultural Research Center (BARC) campus that was transferred from the USDA to 379 the Treasury as authorized by the Agricultural Improvement Act of 2018 (Public Law 115-334 § 380 7602; 132 Stat. 4490, 4825-26). This parcel is approximately 10 miles northeast of Washington, 381 DC, in Prince George's County, MD. The areas for traffic, utility, and construction-related 382 measures are located within a 1.5-mile radius around the replacement CPF. The BEP 2021 EIS 383 determined several of these traffic and utility measures as necessary to ensure that impacts of the 384 replacement CPF are less than significant (Treasury 2021a). Additional locations for traffic, utility, 385 and construction-related measures in the project vicinity have been proposed after the BEP 2021 EIS, including improvements to Sheep Road, Poultry Road, Animal Husbandry Road, and adjacent 386 387 to Odell Road, as well as construction-related measures adjacent to the replacement CPF site. 388 Appendix A, Figure 1-1 shows the project location.

389 **1.2 PURPOSE AND NEED**

390 The purpose of the Proposed Action is to meet the traffic, utility, and construction-related 391 improvements as outlined in the Final EIS for the Construction and Operation of a CPF in the NCR

and as determined by design changes that have come about after the BEP 2021 EIS ROD signature.

The BEP 2021 EIS identified seven traffic intersections that currently have a failing level of service (LOS) and, without improvement, would continue to have a failing LOS during and after the construction of the replacement CPF. A Transportation Impact Study (TIS) of 15 intersections in 397 National Capital Park and Planning Commission (M-NCPPC), the City of Greenbelt, Maryland 398 State Highway Administration (SHA), U.S. Army Corps of Engineers (USACE) Baltimore 399 District, National Capital Planning Commission (NCPC), and NPS. The TIS used an intersection 400 capacity analysis and an intersection queuing analysis to determine which intersections were 401 "passing" and which were "failing" (BEP 2020). These failing intersections would require various 402 roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is 403 needed to ensure the traffic LOS at each identified failing intersection meets the applicable 404 thresholds with the increase in traffic anticipated from the operation of BEP's replacement CPF in 405 Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's 406 replacement CPF at the chosen site on BARC and to support construction-related laydown areas 407 identified in the most recent CPF design.

408 **1.3 APPLICABLE REGULATIONS**

409 Under the guidance provided in NEPA and TD 75-02, an EIS or an EA must be prepared for most 410 major Federal actions that may significantly affect the quality of the environment. Actions 411 determined to be exempt by law, emergencies, or categorically excluded do not require the 412 preparation of an EA or EIS. If an action is not likely to significantly affect the environment, or if 413 the significance is unknown, an EA is prepared. An EA provides sufficient evidence and analysis for determining whether to prepare an EIS. An evaluation of the environmental consequences of 414 415 the Proposed Action and the No Action Alternative includes direct, indirect, and cumulative 416 effects, as well as qualitative and quantitative (where possible) assessment of the level of 417 significance of these effects. The EA results in either a Finding of No Significant Impact (FONSI) 418 or a Notice of Intent to prepare an EIS.

- A list of regulations applicable to this EA can be found in Table 1-1. This list may not be all inclusive. Other regulations and guidance that may be applicable are listed in BEP's 2021 EIS and
 are incorporated by reference.
- Although the FHWA is a cooperating agency, the project does not use CFR Title 23 funds;
 therefore, Section 4(f) does not apply to this undertaking.
- 424

Federal Regulations				
National Environmental Policy Act	CEQ - <u>40 CFR Parts 1500-1508</u>	23 CFR 771: U.S. FHWA and U.S.		
<u>of 1969</u>		Department of Transportation		
		(USDOT), Part 771 –		
		Environmental Impact and Related		
		Procedures		
Energy Independence and Security	Clean Water Act (CWA) of 1972 /	Clean Air Act (CAA) of 1963		
Act (EISA) of 2007	Section 401 and Section 404			
Farmland Protection Policy Act	Bald and Golden Eagle Protection	Coastal Zone Management Act		
<u>(FPPA) of 1984</u>	Act (BGEPA) of 1940	(CZMA) of 1972		
Endangered Species Act (ESA) of	Migratory Bird Treaty Act (MBTA)	Fish and Wildlife Coordination Act		
<u>1973</u> / Section 7	<u>of 1918</u>	<u>of 1934</u>		
Noise Control Act of 1972	Occupational Safety and Health	National Historic Preservation Act		
	Administration (OSHA) Standards:	of 1966 / Section 106		
	Occupational Noise Exposure (29			
	<u>CFR Part 1910.95</u>)			
Federal Antiquities Act of 1906	Archaeological Resources	Archaeological and Historic		
	Protection Act of 1979	Preservation Act of 1974		

Federal Regulations (Continued)				
Native American Graves Protection	American Indian Religious	Resource Conservation and		
and Repatriation Act of 1990	Freedom Act of 1978	Recovery Act (RCRA) of 1976		
U.S. Environmental Protection	OSHA Standards: Toxic and	Procedures for Abatement of		
Agency (USEPA) Identification	Hazardous Substances - Hazard	Highway Traffic Noise and		
and Listing of Hazardous Waste (40	Communication (29 CFR Part	Construction Noise (23 CFR 772)		
<u>CFR Part 261</u>)	<u>1910.1200</u>)			
Executiv	ve Orders (EO) & Director's Ord	ers (DO)		
EO 12372: Intergovernmental	EO 13175: Consultation and	EO 12898: Federal Actions to		
Review of Federal Programs	Coordination with Indian Tribal	Address Environmental Justice in		
	Governments	Minority Populations and Low-		
		Income Populations		
EO 14096: Revitalizing Our	EO 11988: Floodplain Management	EO 13690: Establishing a Federal		
Nation's Commitment to		Flood Risk Management Standard		
Environmental Justice for All		and a Process for Further Soliciting		
		and Considering Stakeholder Input		
EO 13508: Chesapeake Bay	EO 11990: Protection of Wetlands	EQ 13186: Responsibilities of		
Protection and Restoration		Federal Agencies to Protect		
		Migratory Birds		
FO 13045: Protection of Children	TD 75-02	NPS DO#12: Conservation		
from Environmental Health Risks	10 13 02	Planning Environmental Impact		
and Safety Risks		Analysis and Decision making		
NDS DO#28: Cultural Resource		Analysis, and Decision-making		
Management				
	State Regulations			
Maryland Stormwater Management	Maryland Forest Conservation Act	Maryland Department of the		
Act of 2007	of 1991	Environment: Title 26 – Code of		
<u>Act 01 2007</u>		Maryland Regulations		
Mamland Nangama and	2011 Maguland Standards and	Maryland Nontidal Watlanda		
Endengered Species Act of 1075	2011 Maryland Standards and	Protection Act of 1001 (Article 4		
Endangered Species Act of 1975	Specifications for Son Erosion and	$\frac{\text{Protection Act of 1991 (Article 4,})}{\text{Solution}}$		
	Sediment Control	Sections 3901 to 3911)		
Maryland Sustainable Growth and	Maryland State Highway	Maryland Environmental Policy		
Agricultural Preservation Act of	Administration: Title 11, Subtitle 4	<u>Act of 19/3</u>		
2012	- Code of Maryland Regulations			
Maryland State Highway				
Administration Highway Noise				
Abatement Planning and				
Engineering Guidelines, 2020				
Local Regulations				
Prince George's County Noise	Prince George's County Zoning	Prince George's Countywide		
Ordinance	Ordinance	Master Plan of Transportation,		
		2009		
Prince George's County 2035	Prince George's County Priority	National Capital Planning		
Approved General Plan	Preservation Area Functional	Commission's Comprehensive Plan		
	Master Plan 2012	for the National Capital 2021		

427 **1.4 SCOPING AND PUBLIC PARTICIPATION**

428 Scoping is an early and open process for developing the breadth of issues to be addressed in the 429 EA and identifying significant concerns related to a Proposed Action. To help determine the scope 430 of issues to be addressed in this EA, agency consultation was completed. Agency scoping included 431 a 30-day comment period from November 9, 2023, through December 9, 2023. Consultation was 432 initiated with the following agencies for the proposed project: USACE, USEPA, USDA ARS, 433 USDA Natural Resources Conservation Service (NRCS), NPS, U.S. Fish and Wildlife Service 434 (USFWS), FHWA, SHA, Maryland Department of Natural Resources (MDNR), Maryland 435 Department of the Environment (MDE), Maryland Historical Trust (MHT), Prince George's 436 County, M-NCPPC, and NCPC. Consultation was also initiated with Native American tribal 437 governments; copies of correspondence are in Appendix B. Responses from agencies and tribal 438 governments, if applicable, can be found in Appendix B. The agency consultation and 439 coordination efforts and public participation efforts are detailed in Section 5, Consultation and 440 Coordination.

441 **1.5 IMPACT TOPICS ANALYZED IN THIS EA**

442 Impact topics are resources of concern that would be affected, either beneficially or adversely, by 443 the range of alternatives presented in this EA. The following resources are evaluated in Section 4 444 of this EA: land use; topography and soils; noise; air quality; climate change and greenhouse gas; 445 water resources; biological resources; cultural resources; aesthetics and visual resources; 446 socioeconomics, environmental justice (EJ), and protection of children; transportation; utilities; 447 hazardous and toxic materials and waste (HTMW); and health and public safety. The impact topics 448 analyzed in this EA are listed below, along with the reasons why they were retained for analysis.

449 **1.5.1** LAND USE

450 Both action alternatives, as described in Section 0, would result in minor changes to land use,

451 including minimal conversion of undeveloped areas within existing road buffers to pavement and

452 temporary use of undeveloped and agricultural land for construction measures. Easements from

453 government organizations and/or private property owners may also be required to complete the

454 proposed improvements. As such, impacts to land use are analyzed in this EA.

455 **1.5.2 TOPOGRAPHY AND SOIL RESOURCES**

456 Construction activities under both action alternatives would require soil disturbance, including 457 excavation, grading, and placement of fill material. Road grades established under the Proposed Action would be developed in consideration of pedestrian and vehicle sight lines. The limits of 458 459 disturbance (LOD) for traffic improvements include the Baltimore-Washington Parkway, which 460 NPS owns. According to the NPS Management Policies, the NPS "will actively seek to understand and preserve soil resources of parks, and to prevent, to the extent possible, the unnatural erosion, 461 physical removal or contamination of the soil or its contamination of other resources" (NPS 2006). 462 463 The project's LOD also includes prime farmland and farmland of statewide importance designated 464 under the Farmland Protection Policy Act (FPPA). Based on these considerations, impacts to soils and topography are analyzed in this EA. 465

466 **1.5.3** Noise

467 Construction of proposed improvements under both action alternatives, as described in Section 0,468 would temporarily increase noise levels in the vicinity due to heavy equipment and machinery

469 operation. Noise-sensitive uses, such as residences, are in the project vicinity. As such, impacts to

470 noise are analyzed in this EA.

471 **1.5.4 AIR QUALITY**

472 Both action alternatives would result in construction-related emissions and fugitive dust from 473 construction activities. Prince George's County, where the project is located, is in marginal non-474 attainment for 2015 8-hour ozone (O₃) and maintenance for 2008 8-hour O₃ and 1971 carbon 475 monoxide (CO). The General Conformity Rule requires that all federal actions in non-attainment 476 or maintenance areas be reviewed to ensure the action would not interfere with State 477 Implementation Plan (SIPs) for National Ambient Air Quality Standards (NAAQS). As such, air 478 quality impacts associated with the Clean Air Act (CAA) criteria pollutants are analyzed in this 479 EA.

480 **1.5.5** CLIMATE CHANGE AND GREENHOUSE GAS

481 Construction activities can contribute to greenhouse gas (GHG) emissions in various ways, thereby 482 impacting global warming and climate change. Both action alternatives would generate GHGs 483 through processes such as material production, transportation, energy consumption during 484 construction, land use change, and waste generation. No significant thresholds for GHG emissions 485 and climate change have been established.

486 **1.5.6 WATER RESOURCES**

487 Water resources within or adjacent to the Project Area include several streams and wetlands 488 adjacent to Edmonston, Powder Mill, and Odell Roads. The CWA Section 404 permits and Section 489 401 Water Quality Certifications would be required for any impacts to jurisdictional wetlands or 490 surface waters. Section 404 of the CWA requires authorization from the Secretary of the Army, 491 acting through the USACE, for the discharge of dredged or fill material into all waters of the U.S., including wetlands. Section 401 is the state's part of the CWA, and no agency can proceed with a 492 493 discharge into a water of the U.S. without a Section 401 Water Quality Certification. A portion of 494 the Project Area also falls within the Federal Emergency Management Agency's (FEMA) 100-year 495 regulated floodplain. The Project Area is also located within the Maryland Coastal Zone. While 496 federally owned property is statutorily excluded from the coastal zone, federal actions that have 497 the potential to affect coastal zone resources must be consistent, to the maximum extent 498 practicable, with the state's enforceable coastal zone policies. Based on these considerations, 499 impacts to water resources are analyzed in detail in this EA.

500 **1.5.7 BIOLOGICAL RESOURCES**

501 Construction activities and associated tree removal under both action alternatives have the 502 potential to affect both terrestrial and aquatic vegetation and wildlife in the Project Area, including 503 federally protected species, such as the endangered northern long-eared bat (NLEB) (Myotis 504 septentrionalis) and monarch butterfly (Danaus plexippus), a candidate species, as well as 505 migratory birds protected by the Migratory Bird Treaty Act (MBTA). The tricolored bat 506 (Perimvotis subflavus) is also proposed for listing in this region; however, it is unknown if and 507 when the species will be listed. Because federally protected species are potentially present within 508 the Project Area, coordination with USFWS is required. As such, impacts to biological resources 509 are analyzed in detail in this EA.

510 **1.5.8** CULTURAL RESOURCES

511 There are a total of 16 archaeological resources and no known paleontological sites within the 512 Project Area. The architectural resources within the Project Area include two historic districts— 513 the BARC Historic District and the Baltimore-Washington Parkway Historic District. The 514 architectural Area of Potential Effect (APE) for visual effects under both alternatives includes both 515 historic districts. Two cultural landscapes are identified within the Project Area, including the 516 Baltimore-Washington Parkway and BARC. Based on these considerations, impacts to 517 archaeological resources, architectural resources, and cultural landscapes are analyzed in detail in 518 this EA.

519 **1.5.9** AESTHETICS AND VISUAL RESOURCES

520 Visual resources can be defined as the natural and manufactured features that constitute the 521 aesthetic qualities of an area. The overall visual landscape contains a mixture of built environment 522 and open space, including natural areas. The Star-Spangled Banner Scenic Byway is also located 523 within the Project Area. Construction activity under both action alternatives could temporarily 524 change the visual landscape due to the presence of equipment and machinery. Therefore, impacts 525 to aesthetics and visual resources are analyzed in this EA.

526 **1.5.10 SOCIOECONOMICS**

527 Socioeconomic impacts could occur under both action alternatives during the construction of the 528 transportation improvements. Construction would require spending on labor, materials, and 529 equipment, which could have beneficial impacts on the local economy. Based on these 530 considerations, impacts to socioeconomics are analyzed in this EA.

531 **1.5.11** Environmental Justice

532 Executive Order (EO) 14096 (Apr. 21, 2023) Revitalizing Our Nation's Commitment to

533 Environmental Justice for All builds upon EO 12898 (Feb. 11, 1994) Federal Actions to Address

534 Environmental Justice in Minority Populations and Low-Income Populations to complement and

535 deepen ongoing EJ work within the Federal government. EO 14096 offers agencies specific

536 guidance on how to consider EJ while fulfilling their statutory mandates, including under NEPA.

537 EJ is defined in EO 14096 as the just treatment and meaningful involvement of all people, 538 regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency 539 decision-making and other Federal activities that affect human health and the environment so that 540 people are fully protected from disproportionate and adverse human health and environmental 541 effects, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers. All people should have equitable access to a healthy, 542 543 sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and 544 engage in cultural and subsistence practices.

- The range of communities in the U.S. with EJ concerns, include communities in urban and rural areas; within the boundaries of Tribal Nations and U.S. Territories; with a significant proportion of people who have low incomes or are otherwise adversely affected by persistent poverty or inequality; with a significant proportion of people of color, including individuals who are Black, Latino, Indigenous and Native American, Asian American, Native Hawaiian, and Pacific Islander;
- 549 Latino, indigenous and Native American, Asian American, Native Hawanan, and Pacin 550 and geographically dispersed and mobile populations, such as migraph formworkers
- and geographically dispersed and mobile populations, such as migrant farmworkers.

551 EO 14096 asserts that communities with EJ concerns continue to experience disproportionate and

552 adverse human health or environmental burdens. The order directs agencies to consider measures

553 to address and prevent disproportionate and adverse human health and environmental impacts of

554 Federal actions, including the cumulative impacts of pollution and other burdens like climate

555 change on these communities.

556 EO 14091 Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Feb. 16, 2023) calls on Federal agencies to conduct proactive 557 558 engagement with members of underserved communities to inform design of regulatory agendas 559 and plans. EO 14096 calls on Federal agencies to remove barriers to the meaningful involvement 560 of the public in decision-making that affects or has the potential to affect human health and the environment, including for communities with EJ concerns. 561

- 562 The Project Area is situated within five Census Block Groups (BGs) contained within four Census
- 563 Tracts (CTs). Based on Federal and state screening tools, all are identified as communities with EJ 564 concerns. Therefore, EJ impacts are analyzed in this EA.

565 **1.5.12 PROTECTION OF CHILDREN**

566 No children are present within the Project Area, and within CT 8074.08 the percent of population

- 567 under 18 years is about 2 percent lower than the average portion of children found in Prince
- George's County and Maryland; however, the 2022 American Community Survey (ACS) 5-year 568
- 569 estimates predict this number will slightly increase over time (U.S. Census Bureau [USCB] 2022). 570 Implementation of the Proposed Action would adhere to all regulations for establishing and
- 571 maintaining a safe perimeter around ongoing construction sites to prohibit access by children or
- 572 other members of the public. Consistent with EO 13045, Protection of Children from
- Environmental Health Risks and Safety Risks, this EA addresses the protection of children. 573

574 **1.5.13 TRANSPORTATION**

575 Section 3.10.2 of BEP's 2021 EIS identified seven intersections for mitigation to improve traffic 576 LOS during the operation of the CPF (Treasury 2021a). Currently, the LOS is failing at six of the 577 seven intersections and would not be improved under the No Action Alternative. Under either 578 action alternative analyzed in this EA, the mitigation measures to improve the LOS (roadway 579 widening, lane additions, new signaling, new pavements) would be constructed but could result in 580 temporary, localized disruptions and delays to vehicle and pedestrian/bicycle traffic. Although 581 these disruptions and delays would end once construction is completed, impacts to transportation 582 are analyzed in detail in this EA.

583 **1.5.14** UTILITIES

584 Both action alternatives include the construction of a new sanitary sewer line to convey wastewater 585 from the replacement CPF site that will tie into the Washington Suburban Sanitary Commission (WSSC) sanitary sewer system, as well as the installation of new aboveground Potomac Electric 586 587 Power Company (PEPCO) electric lines and aboveground Verizon service lines to provide service to the replacement CPF site. Both lines would be installed on existing poles. Some existing poles 588 589 are in degraded condition and may require full replacement. Construction activities for intersection 590 improvements near underground utilities could result in temporary service disruptions. As such,

591 impacts to utilities are analyzed in detail in this EA.

592 **1.5.15** HAZARDOUS AND TOXIC MATERIALS AND WASTE

593 Prior to ground disturbance, new utility corridors would need to be surveyed for potential HTMW,

including contaminants such as asbestos; petroleum, oil, and lubricant waste; aboveground and underground storage tanks; military waste such as unexploded ordnance; radon, a naturally occurring hazard; and polychlorinated biphenyls, persistent synthetic compounds which may be present due to former land uses in the vicinity of the Proposed Action locations. As such, impacts from HTMW are englyzed in this EA

598 from HTMW are analyzed in this EA.

599 **1.5.16 HEALTH AND PUBLIC SAFETY**

600 Due to safety concerns from construction, changes in traffic patterns, and integrity of BARC water 601 pipes in the vicinity of intersections, impacts to health and public safety are analyzed in this EA. During construction, Occupational Safety and Health Administration (OSHA) regulations and the 602 603 SHA Work Zone Safety and Mobility Policy would be followed to maintain safe and efficient 604 travel through and around work zones for construction staff, motorists, bicyclists, and pedestrians, 605 including Americans with Disabilities Act access (SHA 2006). The No Action Alternative also 606 presents safety concerns due to the increased volume of traffic and the fact that several 607 unsignalized intersections are considered unsafe.

608 **1.6 IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS**

609 **1.6.1** AIRSPACE

610 Neither action alternative involves aviation assets, and neither would construct or operate any

- 611 elements that would affect air space. Further, there would be no change in existing air space
- 612 restrictions. Based on these considerations, airspace impacts were dismissed from further analysis
- 613 in this EA.

614 **1.6.2** GEOLOGY

615 Potential impacts to geology typically include alterations to subsurface features that would affect

616 seismic hazards, susceptibility to landslides, or radon migration. Neither action alternative

617 proposes excavation to a sufficient depth where geologic resources would be affected. Therefore,

618 impacts to geology were dismissed from further analysis in this EA.

619 **2. ALTERNATIVES**

620 Pursuant to the requirements of NEPA and the regulations for implementing NEPA promulgated

by the CEQ (40 CFR 1500-1508) and TD 75-02, this section describes the Proposed Action and presents alternatives to the Proposed Action, including the No Action Alternative.

623 2.1 ACTION ALTERNATIVES

624 **2.1.1** ALTERNATIVE 1 (PROPOSED ACTION AND PREFERRED ALTERNATIVE)

The Proposed Action is to implement roadway improvements and/or realignments at the seven intersections identified in the BEP's 2021 EIS as well as additional locations adjacent to the CPF site, to construct an entrance road for the new CPF site and an access road for the two existing USDA wells in the vicinity of the CPF site, and to provide utility access to the CPF site, which includes new alignments for electric, telecommunications, and gas lines, as well as construction of a new sanitary sewer line from the replacement CPF that ties into the WSSC sanitary sewer system.

- Based on the results of the TIS and BEP's 2021 EIS, intersections to be redeveloped include:
- Edmonston Road at Sunnyside Avenue, maintained by SHA and Prince George's County (currently has failing LOS);
- Edmonston Road at Beaver Dam Road, maintained by SHA and Prince George's County (currently has failing LOS);
- Edmonston Road at Powder Mill Road, maintained by USDA, SHA, and Prince George's
 County (currently has failing LOS);
- Powder Mill Road at Animal Husbandry Road, maintained by USDA;
- Powder Mill Road at Springfield Road, maintained by USDA and Prince George's County (currently has failing LOS);
- Powder Mill Road at Baltimore-Washington Parkway northbound ramps, maintained by
 USDA and NPS and located on land managed by NPS (currently has failing LOS); and
- Powder Mill at Baltimore-Washington Parkway southbound ramps, maintained by USDA and NPS and located on land managed by NPS (currently has failing LOS) (BEP 2020).

645 One of the intersection redevelopments-Powder Mill Road at Animal Husbandry Road-was 646 included in the Proposed Action of BEP's 2021 EIS; however, based on the updated design, the 647 footprint for improvements at this intersection has changed. Therefore, the area not previously 648 surveyed and analyzed in BEP's 2021 EIS is analyzed in this EA. The intersection improvements 649 could include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, 650 and addition of traffic control devices. A southbound left turn lane would be added along 651 Edmonston Road as well as a two-lane approach along Beaver Dam Road, to include one left and one right turn lane. All work on SHA roadways would conform to the latest approved SHA 652 653 specifications, including Standard Specifications for Construction and Materials, Book of Standards for Highway and Incidental Structures, and Manual on Uniform Traffic Control 654 655 Devices.

- In addition to the intersections identified in BEP's 2021 EIS, the following traffic improvementsare also proposed:
- Removal of a portion of Poultry Road to accommodate the CPF facility parking lot and repaving of the remaining portion to improve the entrance to the parking lot of BARC Building 229.

• Regrading and repaving a portion of Sheep Road by its intersection with Powder Mill Road.

- Construction of a new entrance road for the CPF site; part of the entrance road's footprint is included in the scope of BEP's 2021 EIS.
- Minor improvements to Animal Husbandry Road associated with the new CPF entrance road.
- Construction of a new gravel road to access two existing USDA wells southeast of the CPF site.
- Installation of additional roadway signage along Powder Mill Road and Edmonston Road.
- Removal of rumble strips along Powder Mill Road from Edmonston Road to Baltimore Washington Parkway, located on land managed by USDA.
- 671 The proposed utility improvements to provide service to the CPF site are as follows.
- Installation of new aboveground PEPCO electric lines on existing poles along both sides
 of Odell Road from its intersection with Edmonston Road to the CPF site. Some existing
 poles are in degraded condition and may require full replacement.
- Installation of new aboveground lines to provide Verizon service running on existing poles
 from the intersection of Odell Road and Edmonston Road to the CPF site, and from
 Ellington Drive, south of Muirkirk Road, to Odell Road and west to the CPF site. Some
 existing poles are in degraded condition and may require full replacement.
- Installation of a new Washington Gas connection south of Odell Road and east of Poultry
 Road and the new CPF.
- Construction of a new sanitary sewer line running north from the CPF site and tying into the WSSC sanitary sewer system north of Odell Road and south of Ammendale Way. Wastewater would be treated at the Blue Plains Advanced Wastewater Treatment Plant (WWTP), the WWTP used by BEP's existing facilities in the Washington, DC, area. BEP would pre-treat all industrial wastewater to WSSC standards in-house prior to discharge into the WSSC system.

A 7.5-acre staging, or laydown, area south of the replacement CPF site would be temporarily used
 for parking and storage during construction. A bioswale maintenance access would be cleared west
 of the CPF site to access and maintain a planned bioswale.

690 **Appendix A, Figure 2-1** shows the LOD for the traffic measures, the locations of the new CPF 691 entrance road and well access road, the proposed utility alignments, the bioswale maintenance 692 access, and the locations of the temporary laydown area.

- 693 Under Alternative 1, the NPS and USDA would allow the roadway and/or utility improvements to
- 694 occur on their properties, as determined through consultation between BEP and these agencies.
- 695 The roadways and intersections would continue to remain the property of the entities that currently
- 696 own those properties. Alternative 1 is the preferred alternative.

697 **2.1.2 ALTERNATIVE 2**

Alternative 2 is to implement roadway improvements at the seven intersections listed in Section 2.1.1, along with the additional roadway improvements adjacent to the CPF site, construction of an entrance road for the new CPF site, and a well access road in the vicinity of the CPF site, and provision of utility access to the CPF site, which includes new alignments for electric, telecommunications, and gas lines. Temporary use of the laydown area and clearance of the bioswale maintenance access would also occur. Under this alternative, the new sanitary sewer line 704 would run southwest from the main CPF site and tie into the WSSC sanitary sewer system west of 705 the Edmonston Road and Powder Mill Road intersection. As under Alternative 1, wastewater

- would be treated at the Blue Plains Advanced WWTP, and BEP would pre-treat all industrial
- 707 wastewater to WSSC standards in-house prior to discharge into the WSSC system.

Appendix A, Figure 2-2 shows the LOD for the traffic measures, the locations of the new CPF entrance road and well access road, the proposed utility alignments, the bioswale maintenance access, and the location of the temporary laydown area for Alternative 2. Appendix A, Figure 2-3 shows the alignment alternatives for the new sanitary sewer line. As described under Alternative 1, NPS and USDA would allow the roadway and utility improvements to occur on their properties under Alternative 2, as determined through consultation between BEP and these agencies.

715 **2.1.3** ELEMENTS COMMON TO THE ACTION ALTERNATIVES

The elements listed below would be included with the implementation of either Action Alternative. These elements have been included to address specific elements of the purpose and need and design considerations as developed during the scoping process. Their intent is to ensure the traffic LOS at each of the identified failing intersections meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of the replacement CPF and to ensure utility systems in place are sufficient to support the facility. The elements common to both Action Alternatives include the following.

- Improvements at the seven intersections identified as needing improvement in the BEP's 2021 EIS, as listed in Section 2.1.1—improvements may include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, and addition of traffic control devices.
- Additional traffic improvements to Poultry Road, Sheep Road, and Animal Husbandry Road.
- Construction of a new entrance road for the CPF site; part of the entrance road's footprint is included in the scope of BEP's 2021 EIS.
- Construction of a gravel well access road southeast of the CPF site.
 - Installation of new roadway signage along Powder Mill Road and Edmonston Road.
- Removal of rumble strips on Powder Mill Road from Edmonston Road to Baltimore Washington Parkway.
- Installation of new aboveground PEPCO electric lines on existing poles along both sides
 of Odell Road from its intersection with Edmonston Road to the CPF site. Some existing
 poles are in degraded condition and may require full replacement.
- Installation of new aboveground lines to provide Verizon service, running on existing poles
 from the intersection of Odell Road and Edmonston Road to the CPF site, and from
 Ellington Drive, south of Muirkirk Road, to Odell Road and west to the CPF site. Some
 existing poles are in degraded condition and may require full replacement.
- Installation of a new Washington Gas connection south of Odell Road and east of Poultry
 Road and the new CPF.
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction.
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain
 a planned bioswale.

The only difference between Alternatives 1 and 2 is the alignment of the proposed sanitary sewer

- ⁷⁴⁹ line. Under Alternative 1, the line would run north from the CPF site and tie into the WSSC sanitary
- sewer system north of Odell Road. Under Alternative 2, the line would run southwest from the
- 751 main CPF site and tie into the WSSC sanitary sewer system west of the intersection of Edmonston
- Road and Powder Mill Road. However, under both alternatives, wastewater would be treated atthe Blue Plains Advanced WWTP. BEP would pre-treat all industrial wastewater to WSSC
- standards in-house prior to discharge into the WSSC system.

755 **2.2 NO ACTION ALTERNATIVE**

Under the No Action Alternative, roadway and utility improvements would not be implemented.
 Six intersections surrounding the Project Area would remain at a failing LOS. The current sanitary
 sewer, electric, gas, and telecommunications service lines would not adequately support the new
 CPF.

760 **2.3 MITIGATION MEASURES OF THE ACTION ALTERNATIVES**

Mitigation measures of the action alternatives relevant to each impact topic are summarized in
 Appendix C, Table C-1.

763 2.4 ALTERNATIVES SCREENED FROM FURTHER ANALYSIS

As part of BEP's June 2020 TIS, 15 intersections were examined for existing conditions and potential impacts that could result from the construction and operation of BEP's replacement CPF. Eight intersections were determined not to warrant improvement based on their current and expected LOS.

Those intersections considered for improvements but screened from further analysis include Edmonston Road at I-95 southbound off-ramp; Edmonston Road at I-95 northbound off-ramp; Edmonston Road at Crescent Road; Edmonston Road at Ivy Lane; Edmonston Road at Cherrywood Lane; Edmonston Road at Odell Road; Powder Mill Road at Research Road; and Powder Mill Road at Soil Conservation Road (BEP 2020).

Alternatives for sanitary sewer service that included construction of a force main to convey wastewater from the CPF site to the BARC WWTP south of Beaver Dam Road were also considered but dismissed. During the design progression for the CPF, BEP was notified by MDE that BARC's WWTP has been in non-compliance since 2019, and that MDE would not approve the CPF connection to the BARC WWTP if BARC is in non-compliance. In lieu of BARC's WWTP non-compliance status and public concern for local water quality, BEP decided to approach WSSC to explore options for a WSSC connection for sanitary sewer service for the CPF.

780 **2.5 ENVIRONMENTALLY PREFERABLE ALTERNATIVE**

781 The environmentally preferable alternative is the alternative developed and analyzed during the 782 NEPA process "that causes the least damage to the biological and physical environment and best

- protects, preserves, and enhances historical, cultural, and natural resources" (40 CFR 46.30).
- 784 The No Action Alternative is the environmentally preferable alternative, as there would be no 785 impacts to historical, cultural, or natural resources. However, this alternative would not allow
- roadway and utility improvements needed to mitigate traffic and utility impacts from the operation
- 787 of the new CPF. Construction of the new CPF is a critical mission for the U.S. Government, and
- 788 without adequate utility service, it could not be built. The seven intersections identified in BEP's
- 789 2021 EIS would remain at a failing or not improved LOS, which could contribute to increased

traffic volume, congestion, and safety concerns since several unsigned intersections are currentlyconsidered unsafe.

792 **2.6 PREFERRED ALTERNATIVE**

Alternative 1 is the Preferred Alternative, as it is the most environmentally preferable of the action

alternatives while still meeting project objectives. The LOD for the proposed sanitary sewer line under Alternative 1 is smaller than under Alternative 2 and minimizes impacts to wetlands and surface waters.

surface waters.

797 2.7 SUMMARY OF IMPACTS

A summary of the environmental consequences of each alternative is presented in **Table 2-1**. See Section 4 for detailed explanations of the impacts presented.

Impacted	Resource	Alternative 1	Alternative 2	No Action Alternative
Land Use Short-term Impact		None	None	None
	Long-term Impact	Less than significant	Less than significant	None
	Cumulative Impact	Less than significant	Less than significant	None
Topography and Soils	Short-term Impact	Less than significant	Less than significant	None
	Long-term Impact	Less than significant	Less than significant	None
	Cumulative Impact	Less than significant	Less than significant	None
Noise	Short-term Impact	Less than significant	Less than significant	None
	Long-term Impact	Beneficial	Beneficial	None
	Cumulative Impact	Less than significant	Less than significant	None
Air Quality	Short-term Impact	Less than significant	Less than significant	None
	Long-term Impact	None	None	None
	Cumulative Impact	Less than significant	Less than significant	None
Climate Change and	Short-term Impact	Negligible	Less than significant	None
Greenhouse Gas	Long-term Impact	Negligible	Negligible	None
	Cumulative Impact	Negligible	Less than significant	None
Water Resources	Short-term Impact	Less than significant	Less than significant	None
	Long-term Impact	Less than significant	Less than significant	None
	Cumulative Impact	Less than significant	Less than significant	None
Biological Resources	Short-term Impact	Less than significant	Less than significant	None
	Long-term Impact	Less than significant	Less than significant	None
	Cumulative Impact	Less than significant	Less than significant	None
Cultural Resources	Short-term Impact	Less than significant	Less than significant	None
	Long-term Impact	Less than significant	Less than significant	None
	Cumulative Impact	Less than significant	Less than significant	None
Aesthetics and Visual	Short-term Impact	Less than significant	Less than significant	None
Resources	Long-term Impact	Negligible	Negligible	None
	Cumulative Impact	Less than significant	Less than significant	None
Socioeconomics	Short-term Impact	Beneficial	Beneficial	None

Impacted Resource		Alternative 1	Alternative 2	No Action Alternative
	Long-term Impact	None	None	None
	Cumulative Impact	Beneficial	Beneficial	None
Environmental Justice	Short-term Impact	Negligible	Negligible	Less than significant
	Long-term Impact	Negligible	Negligible	Less than significant
	Cumulative Impact	Negligible	Negligible	Less than significant
Protection of Children	Short-term Impact	None	None	Negligible
	Long-term Impact	Beneficial	Beneficial	Negligible
	Cumulative Impact	Beneficial	Beneficial	Less than significant
Transportation	Short-term Impact	Less than significant	Less than significant	Significant
	Long-term Impact	Beneficial	Beneficial	Significant
	Cumulative Impact	Beneficial	Beneficial	Significant
Utilities	Short-term Impact	Negligible	Negligible	None
	Long-term Impact	Beneficial	Beneficial	None
	Cumulative Impact	Negligible	Negligible	None
HTMW	Short-term Impact	Negligible	Negligible	None
	Long-term Impact	Negligible	Negligible	None
	Cumulative Impact	Negligible	Negligible	None
Health and Public	Short-term Impact	Negligible	Negligible	None
Safety	Long-term Impact	Beneficial	Beneficial	Less than significant
	Cumulative Impact	Less than significant, Beneficial	Less than significant, Beneficial	Less than significant

802 **3. AFFECTED ENVIRONMENT**

803 This section discusses the existing conditions within the boundary of analysis for each impact

topic. The discussion establishes a baseline for project-related impacts presented in Section 4,
 Environmental Consequences.

806 **3.1 LAND USE**

The region of influence (ROI) for this analysis includes the Project Area and all areas within one mile of the Project Area. These areas may be influenced, directly or indirectly, by activities associated with the project due to proximity. Areas beyond one mile from the Project Area would not experience impacts that could meaningfully affect land use.

- 811 The Project Area is in Prince George's County and the NCR planning district along MD 295,
- 812 Powder Mill Road, Edmonston Road, and Odell Road at BARC. Agriculture and forested land are
- the predominant land uses within the Project Area and vicinity. Other prevalent land uses in the

814 ROI include institutional, industrial, and medium-density residential (State of Maryland 2010). A

815 portion of the Project Area also falls within the park boundary of the Baltimore-Washington

816 Parkway, managed by NPS. Refer to Appendix A, Figure 3-1 for a map of land uses within the

- 817 Project Area and ROI. **Table 3-1** shows the acreage of each land use within the ROI.
- 818

Table 5-1. Land Uses in the ROT

Land Use	Acres	Percent of ROI
Low Density Residential	315.5	2.2
Medium Density Residential	1,702.1	11.7
High Density Residential	394.0	2.7
Commercial	347.4	2.4
Industrial	1,435.8	9.8
Institutional	1,419.6	9.7
Other Developed Lands	171.6	1.2
Agriculture	2,590.8	17.8
Forest	5,997.4	41.1
Water	62.1	0.4
Barren Land	6.9	Less than 0.1
Transportation	150.3	1.0
Total	14,593.5	100

819 Source: State of Maryland 2010

820 Prince George's County consists of five major base zoning types: Rural and Agricultural, 821 Residential, Nonresidential, Transit-Oriented/Activity Center, and Other. Overlay and Planned 822 Development zones may apply in addition to or in lieu of base zones. Please refer to Prince 823 George's County Visual Guide to Zoning Categories for further information on these zoning categories (M-NCPPC and Prince George's County Planning Department 2023a). Most of the land 824 825 within or adjacent to the Project Area is zoned under the Reserved Open Space zoning 826 classification within the Residential base zoning type. Other zoning classifications in the immediate vicinity include "Residential, Single-Family-Attached (RSF-A)" and "Industrial, 827 828 Heavy" north of Powder Mill Road and west of Edmonston Drive, and RSF-A and "Rural, 829 Residential" north of Odell Road and along Ellington Drive (M-NCPPC and Prince George's

County Planning Department 2023b). Refer to Appendix A, Figure 3-2 for a map of all zoning
classifications within the Project Area and ROI.

832 Plan Prince George's 2035 Approved General Plan contains comprehensive regulations for guiding future development within Prince George's County. It designates a portion of the Project 833 834 Area near the US-1 corridor as an Employment Area and an Innovation Corridor. In general, the 835 plan recommends supporting business growth in this area, concentrating new business 836 development near transit and improving transit access and connectivity (M-NCPPC and Prince 837 George's County Planning Department 2014). The Prince George's County Resource 838 Conservation Plan (RCP) designates BARC as a Special Conservation Area (SCA). SCAs contain 839 unique environmental features that should be carefully considered when land development 840 proposals are reviewed in the vicinity to ensure that their ecological functions are protected or 841 restored and that critical ecological connections are established and maintained 842 (M-NCPPC and Prince George's County Planning Department 2017). The Project Area also 843 includes BARC land designated as a Priority Preservation Area (PPA) to preserve agricultural land 844 use (M-NCPPC and Prince George's County Planning Department 2017, State of Maryland 845 2014a). Appendix A, Figure 3-3 shows the PPA within the Project Area. Other master plans 846 relevant to the Project Area can be found at https://www.mncppc.org/3370/Active-Community-847 Development-Plans.

- A portion of the Project Area falls within a Maryland Priority Funding Area (PFA) (State of Maryland 2014b). PFAs are existing communities and places designated by local governments that
- 850 indicate where state investment is desired to support future growth. PFAs include every municipal
- boundary as they existed in 1997, areas inside the Washington and Baltimore beltways, and areas
- 852 designated as enterprise zones, neighborhood revitalization areas, heritage areas, and existing
- industrial land (Maryland Department of Planning 2019). Appendix A, Figure 3-4 shows PFAs
- 854 within the Project Area. Refer to **Appendix A**, **Figure 3-5** for a map of property ownership within
- the Project Area.

856 **3.2 TOPOGRAPHY AND SOILS**

The ROI for topographic and soil resources is the Project Area, as the project would have no potential to affect these resources beyond the boundaries of the Project Area.

859 **3.2.1 Тородгарну**

- The proposed Project Area is flat with comparatively little grade change. There are modest slopes on the western half of BARC that slightly increase to the east. There are visible hillocks as Powder Mill and Odell roads meander toward Baltimore-Washington Parkway. Elevation in the Project Area increases from southwest to northeast, ranging from approximately 75 feet above mean sea level (amsl) within the Edmonston Road LOD for traffic improvements to over 200 feet amsl within the Verizon service line alignment on Ellington Drive (U.S. Geological Survey [USGS] 2023a; USGS 2023b). **Appendix A, Figure 3-6** contains a topographic map of the Project Area.
- 867 **3.2.2 SOILS**

Appendix A, Figure 3-7 shows the soil types underlying the Project Area. On-site soils have a medium to high susceptibility to compaction, and approximately one-third of the soils have a moderate to high potential for erosion (>0.35 K-factor). The Project Area common to both action alternatives contains approximately 14 acres of prime farmland and 2 acres of farmland of statewide importance. Prime farmland, as defined by the USDA, is land that has the best 873 combination of physical and chemical characteristics for producing food, feed, forage, fiber, and

- oilseed crops and is also available for these uses. Farmland of statewide importance does not meet
- 875 criteria for prime or unique farmland but is considered to be of statewide importance for the 876 production of food, feed, fiber, forage, and oil seed crops. Criteria for defining and delineating this
- 876 production of food, feed, fiber, forage, and on seed crops. Criteria for defining and demeating this 877 land are determined by the appropriate State agency or agencies (7 CFR 657). Prime and important
- farmland, including farmland that is unique, of statewide importance, or of local importance, is
- 879 protected by the FPPA, which assures that to the extent possible, federal programs are administered
- to be compatible with state, local units of government, and private programs and policies to protect
 farmland. The proposed sanitary sewer alignment under Alternative 2 contains an additional 5
- acres of prime farmland and 1 acre of farmland of statewide importance; no prime farmland or
- farmland of statewide importance is located within the sanitary sewer alignment under Alternative
- 1 (USDA NRCS 2023). Appendix A, Figures 3-8 and 3-9 show areas of prime farmland and
 farmland of statewide importance underlying the Project Area.

886 **3.3 NOISE**

The noise ROI includes the Project Area and areas within 1,500 feet of the Project Area. Beyond 1,500 feet, noise generated during construction of the proposed traffic and utility improvements

- 889 would be expected to attenuate to ambient levels and would not be noticeable.
- 890 Noise is an undesirable sound that interferes with normal activities or otherwise diminishes the
- quality of the environment. It may be intermittent or continuous, steady, or impulsive, stationary,
- 892 or transient. Sound varies by intensity and frequency and the human ear responds differently to
- 893 different frequencies. Sound pressure level is described in decibels (dB) and is used to quantify
- 894 sound intensity. Hertz is used to quantify sound frequency. "A-weighted" decibels (dBA) 895 approximate the perception of sound by humans and describe steady noise levels, though few
- 896 noises are constant.

There are three noise regulations that apply to the Proposed Action: the Noise Control Act of 1972 (42 USC 4901); OSHA Standards: Occupational Noise Exposure (29 CFR 1910.95); and the Prince George's County Noise Ordinance (Prince George's County Code, Subtitle 19, Division 2) (Prince George's County 2023). Collectively, these regulations restrict construction activities to daytime hours with a maximum noise limit of 75 dBA without a noise suppression plan and 85 dBA with an approved noise suppression plan, as required by Prince George's County. Operational

- 903 noise is similarly restricted.
- A change of a few dBA in noise level is barely perceptible to most people; however, a 10-dBA change is considered a substantial change, and these thresholds are used to estimate a person's likelihood of perceiving a change in noise levels (**Table 3-2** and **Table 3-3**). Construction noise can result in high noise levels during daytime periods and within several hundred feet of the construction activity. The zone of high construction noise typically extends to distances of 400 to 800 feet from the operating equipment. Locations more than 1,000 feet from construction sites experience little disturbance from noise.

Sound Level	Outdoor Example	Indoor Example	Effect
<u>30</u>	Rustling leaves	Soft whisper 15 feet away	Verv quiet
40	Quiet residential area	Library	Quiet
55	Rainfall or light auto traffic 100 feet away	Refrigerator	Ambient
60	Normal conversation	Air conditioning unit 20 feet away	Intrusive
70	Freeway traffic	Noisy restaurant or TV audio	Telephone use difficult
80	Downtown of a large city	Alarm clock 2 feet away or ringing telephone	Annoying
90	Heavy truck	Garbage disposal	Very annoying; hearing damage possible after 8 hours
100	Garbage truck, motorcycle	Subway train	Very annoying
110	Pile drivers	Power saw at 3 feet away	Strained vocal effort
120	Jet takeoff 200 feet away or automobile horn 3 feet away	Rock concert	Maximum vocal effort
140	Carrier deck jet operation	-	Painfully loud

Table 3-2	Common	Noise	Levels	and	Human	Response
1 ant 5-2.	Common	110150		anu	IIuman	nesponse

912 Source: USEPA 1981

911

913 Table 3-3. Typical Noise Levels of Construction Equipment (Noise Level in dBA at 50 Feet)

Construction Vehicle Type	dBA
Bulldozer	93-101
Grader	87-94
Truck	90
Roller	91-104
Backhoe	64-93
Jackhammer	102-111
Concrete Mixer	74-88
Welding Generator	101
Paver	86-88

914 Source: USEPA 1971, OSHA 2003

915 The traffic and utility mitigation sites are semi-rural/suburban. While there are some homes and

business along the western side of Edmonston Road, south of Beaverdam Road in Rosedale Park,

917 north of Odell Road, and along Ellington Drive, as well as various offices and laboratories in the

918 vicinity of the Powder Mill Road/Animal Husbandry Road intersection and the well access road,

919 these areas are not developed. The eastern side of Edmonston Road is primarily open fields on

920 BARC, and the land surrounding the Baltimore-Washington Parkway intersection with Powder

921 Mill Road is forested. No ambient noise measurements have been conducted at these sites.

922 Existing sources of noise include vehicle traffic, including noise rumble strips on Powder Mill

923 Road that have generated complaints from BARC employees and the community; farm equipment

- at BARC; traffic on the Baltimore Washington Parkway, Edmonston Road, and Odell Road; and
- 925 other noises typically generated in a semi-rural/suburban area (Treasury 2021a). A noise study
- 926 conducted in June 2020 found current ambient noise along Odell Road to be between 48 and 50

dBA, primarily influenced by light traffic (Cerami 2020). Wildlife noise sources are present but
are also not discernable from ambient levels.

Appendix A, Figure 3-10 shows noise-sensitive receptors within the ROI. Sensitive receptors include land uses that are sensitive to noise impacts, such as schools, residences, libraries, hospitals, and other care facilities. The nearest sensitive receptors are the residences along Odell Road, which sit 30 to 50 feet from the road; the residences along Edmonston Road, which sit roughly 40 feet from the western edge of the road; and the residences on both sides of Ellington Drive, which sit between 25 and 100 feet from road. Under Alternative 1, some residences to the south of Ammendale Way sit 30 feet north of the WSSC sanitary sewer alignment.

936 **3.4 AIR QUALITY**

937 The CEQ NEPA regulations require evaluation of the degree to which the Proposed Action affects 938 public health (40 CFR 1508.27). Children, the elderly, and people with illnesses are especially 939 sensitive to the effects of air pollutants; therefore, hospitals, schools, convalescent facilities, and

940 residential areas are sensitive receptors for air quality impacts.

941 The ROI for air quality is based on BEP's 2021 EIS (Treasury 2021a). The BEP 2021 EIS

- 942 considered a primary ROI and a localized ROI. The primary ROI encompasses Prince George's
- 943 County and Anne Arundel County. For purposes of assessing the Proposed Action's regulatory 944 compliance with the NAAQS under the CAA, the ROI is within the "National Capital Interstate"
- Air Quality Control Region, which the CAA defines as a contiguous geographic area having
- 946 uniform air quality conditions. National Capital Interstate Air Quality Control Region includes all
- 947 of Washington, DC, Montgomery and Prince Georges Counties, MD, and four counties in Virginia
- 948 (40 CFR 81.12). As of October 31, 2023, the USEPA identifies Prince Georges County as being
- 949 in moderate non-attainment for 8-hour O₃ (2015) and Anne Arundel County as being in non-
- attainment for 8-hour O₃ (2008 and 2015) and sulfur dioxide (2010) (USEPA 2023c).
- 951 The localized ROI is defined as an area having a 1,500-foot buffer around each intersection and

952 sanitary sewer alignment proposed for improvement under the Proposed Action. This EA considers

953 the potential air quality impacts associated with construction activities (e.g., fugitive construction

- 954 dust) on sensitive populations within each localized ROI. Populations who are particularly 955 sensitive to the effects of air pollution include, but are not limited to, asthmatics, children, and the
- 956 elderly, as well as specific facilities, such as long-term health care facilities, rehabilitation centers,
- 957 convalescent centers, retirement homes, schools, playgrounds, and childcare centers.
- 958 There are no sensitive receptors located in the ROIs at the intersections of Powder Mill Road and
- 959 Poultry Road and the Baltimore-Washington Parkway intersections. Therefore, emissions from
- 960 constructing the intersection improvements will not have a direct adverse impact.
- 961 The ROI at the Beaver Dam Road/Edmonston Road and Sunnyside Avenue/Edmonston Road
- 962 intersections together encompass approximately 23 residences located along Rosedale Lane east963 of the intersections and four residences west of Edmonston Road.
- 964 The ROI at the Edmonston Road/Powder Mill Road intersection encompasses approximately 54
- 965 residences. These are located along Cody Court, Indian Creek Street, Line Tree Way, Moonlight
- 966 Court, Twain Court, Figtree Court, and portions of Hockberry Way north of the intersection and
- 967 west of Edmonston Road.
- The other ROIs for other roadway and utility improvements within BARC and along Powder MillRoad and Sheep Road do not encompass any sensitive receptors.

970 Specific to Alternative 1, the utility infrastructure upgrade ROI for extending the sanitary sewer

- 971 line north of Odell Road encompasses residences along Odell Road, Ammendale Way, Sequoia
- 272 Lane, and the Vansville Elementary School.
- 973 Specific to Alternative 2, the utility infrastructure upgrade ROI for extending the sanitary sewer
- 974 line southwest to Powder Mill Road and west of Edmonston Road encompasses the same
- 975 residential area as the Edmonston Road/Powder Mill Road intersection.

976 **3.5** CLIMATE CHANGE AND GREENHOUSE GAS

977 **3.5.1 REGIONAL AND GLOBAL CLIMATE CONTEXT**

- 978 The climate in Maryland is characterized by warm, humid summers and moderately cold and 979 sporadically snowy winters. An average of 47.2 inches of annual precipitation is evenly distributed 980 throughout the year, with February as the driest month (3.3 inches average precipitation) and 981 September as the wettest month (4.7 inches average precipitation). The average annual temperature 982 is 56.4 degrees Fahrenheit (°F). July is the warmest month and January is the coldest month, with 983 average temperatures of 77.1°F and 32.9°F, respectively (National Oceanic and Atmospheric 984 Administration 2023).
- 985 Comprehensive knowledge of regional climate is a necessary contribution to EAs. Temperature 986 and precipitation patterns directly impact water availability, vegetation growth, and wildlife 987 behavior. Climate changes can have cascading effects on ecosystems, agriculture, and 988 communities. Analyzing these factors is vital for informed decision-making and the development 989 of sustainable practices to address potential environmental challenges in the region.
- 990 Understanding and assessing regional climate contributes valuable insights to global context, and 991 in turn can provide context to better understand local weather patterns, such as variations in 992 temperature and precipitation. Insights from studying regional climates contribute to refining 993 climate models, and projecting changes on a larger scale. As climate change is global, impacts 994 observed regionally, such as shifts in precipitation patterns, offer indications of broader trends 995 affecting water resources, agriculture, and ecosystems globally.

996 **3.5.2 PROJECT RELEVANCE TO CLIMATE CHANGE**

997 The relevance of the proposed action to climate change can be determined through numerous 998 factors, such as GHG emissions, energy consumption, wastes, and water management. The traffic 999 and utility improvement areas to be considered relevant to climate change are located within an 1000 approximately 1.5-mile radius around the replacement CPF and include seven intersections along 1001 Edmonston Road (MD 201), Powder Mill Road (MD 212), and the on- and off-ramps from the Baltimore-Washington Parkway (MD 295) at Powder Mill Road (Appendix A, Figure 1-1). 1002 1003 BEP's 2021 EIS identified these traffic and utility mitigation areas as necessary to ensure that 1004 impacts of the replacement CPF are less than significant (Treasury 2021a). The intersection 1005 improvements could include, but are not limited to, lane widening, addition of turn lanes, addition 1006 of new signage, and addition of traffic control devices.

1007 **3.5.3** GREENHOUSE GAS EMISSIONS

- 1008 There are no permanent emissions sources currently present at any of the intersections. Within the 1009 primary and intersection ROIs, emissions generated from stationary sources (e.g., permanent fuel-
- 1010 burning equipment) include boilers at residential homes, businesses, and government-owned
- 1011 facilities. Motor vehicles are the predominant mobile sources.
1012 The USEPA regulates GHGs through mobile source emission standards and permitting 1013 requirements under the Title V Operating Permits program. These regulations include fuel 1014 efficiency and renewable fuel standards on light-duty, medium-duty, and heavy-duty vehicles. The 1015 atmospheric heating effect from these gases is considered the probable cause of the global warming 1016 observed over the last 50 years (USEPA 2009). The change in climate conditions caused by GHGs 1017 analyzed in this EA is a global effect. Therefore, the analysis and disclosure of localized 1018 incremental emissions changes are unlikely to have a measurable effect on climate change.

1019 **3.5.4** VULNERABILITY AND ADAPTATION

To reduce vulnerability and enhance the adaption of communities and ecosystems to air quality impacts of climate change, strategies can be implemented that include but are not limited to mitigating GHG emissions from the source by utilizing renewable energy, implementing emission control measures to reduce GHG production, educating communities about air quality and climate change issues and consequences and involving communities in decision-making processes, and incorporating air quality and climate change considerations into the environmental review processes (USEPA 2023b).

1027 **3.6 WATER RESOURCES**

1028 The ROI for water resources consists of surface water features, including wetlands and portions of a floodplain, and groundwater located within and receiving drainage down-gradient from the 1029 Project Area. The surface water resources include Indian Creek and Beaverdam Creek, both 1030 1031 perennial streams that receive local runoff from the Project Area, and their tributaries; and areas 1032 down-gradient from the Project Area where groundwater is presumed to flow to the southwest. 1033 Beaverdam Creek is designated as a Tier II water by the State of Maryland; see correspondence in 1034 Appendix B from MDE for further information. There are no streams or wetlands identified on 1035 lands managed by NPS.

1036 **3.6.1** SURFACE WATERS AND WATER QUALITY

Six streams were identified by USACE Baltimore District biologists within the proposed
boundaries of traffic and utility improvement Project Area (BEP 2023b). Appendix A, Figure 311 shows the locations of streams and wetlands within the Project Area. The identified streams
include the following:

- The first is an intermittent stream (Waters of the U.S. [WUS]-1) that flows south through
 Wetland 3, under Powder Mill Road and into Wetland 1. It eventually flows to Indian
 Creek.
- The second is an intermittent stream (WUS-2) that drains southwest from Wetland 2 under
 Powder Mill Road and into Wetland 1. It eventually flows to Indian Creek.
- The third is an intermittent stream (WUS-3) on the northeast corner of the Edmonston Road and Powder Mill intersection that flows southwest under the intersection into Wetland 1. It eventually flows to Indian Creek.
- The fourth is an intermittent stream (WUS-4) on the well access site between Center Road and Poultry Road that flows west into an off-site 2019 delineated intermittent stream. It eventually flows to the Anacostia River.
- The fifth is a perennial stream (WUS-5) located in the Sanitary Sewer Alternative 1/Odell
 Road area that flows north into WUS-6.

- The sixth is a perennial stream (WUS-6) located in the Sanitary Sewer Alternative 1/Odell
 Road area that originates off site and flows east to west, eventually into Indian Creek.
- Indian Creek flows south through Wetland 1 following along Edmonston Road. The creek is not within the LOD but runs through Wetland 1 and affects the hydrology of the wetland. It eventually flows to the Anacostia River.

1059 **3.6.2 FLOODPLAINS**

1060 EO 11988 directs Federal agencies to evaluate the potential effects of proposed actions on floodplains. Such actions should not be undertaken that directly or indirectly induce growth in the 1061 1062 floodplain unless there is no practicable alternative. Floodplains are not present within the CPF 1063 footprint and were excluded from the EIS, however floodplains are analyzed in this tiered EA 1064 (Treasury 2021a). The western portion of the Edmonston Road traffic improvements footprint, to the west of Edmonston Road and its intersection with Powder Mill Road, is classified by FEMA 1065 as zone AE (State of Maryland 2017). Appendix A, Figure 3-12 shows the FEMA floodplain 1066 1067 within the Project Area. Flood Zones with an AE designation have a 1-percent annual chance of flooding or are referred to as the "100-year flood." The remainder of the Project Area is in areas 1068 1069 of minimal flood risk (Zone X) according to the FEMA floodplain map (State of Maryland 2017).

1070 **3.6.3** WETLANDS

1071 Wetlands are defined by the presence of three parameters: hydrophytic vegetation, hydric soils, 1072 and wetland hydrology. Wetlands contain areas of inundation or saturation by surface or 1073 groundwater at a frequency and duration sufficient to support hydric soils and hydrophytic vegetation. Wetlands are classified into five systems based on the Cowardin Classification for 1074 1075 wetlands and deepwater habitats. The systems include marine, estuarine, riverine, lacustrine, and 1076 palustrine. Then, systems are further separated into subsystems based on water inundation and 1077 vegetative classes (Cowardin, et. al. 1979). Wetlands provide a wide range of functions and values 1078 including flood flow alteration, sediment and nutrient trapping, wildlife habitat, educational and 1079 scientific value, and visual aesthetics.

USACE Baltimore District biologists performed a wetland delineation in October 2023 (BEP 2023b). Seven wetlands were delineated within the LOD, accounting for approximately 13.7 acres
(Appendix A, Figure 3-11). Table 3-4 summarizes information on wetlands within the Project Area. Appendix D contains further details of the delineation and findings, including data sheets, figures, and photo documentation.

Wetland ID	Cowardin Classification ¹	Total Acreage	
Wetland 1	PFO1E	9.8	
Wetland 2	PEM1Ax	0.07	
Wetland 3	PFO1E	0.36	
Wetland 4	PFO1E	0.04	
Wetland 5	PFO1E	3.24	
We	land 6 removed – no longer in Project Area		
Wetland 7	PEM1E	0.14	
Wetland 8	PEM1E	0.05	

1086

Source: BEP 2023b, ¹¹Cowardin et al. 1979

1087 **3.6.4 Stormwater**

1088 Surface water runoff from the BARC campus feeds into surface water bodies via natural drainage 1089 patterns. There are four streams located at the traffic improvement footprint along Edmonston 1090 Road. None of the sites associated with this project contain existing stormwater management 1091 systems; however, stormwater management practices may have been implemented during the 1092 recently completed roadway improvements at the Sunnyside Avenue and Edmonston Avenue 1093 intersection. In accordance with the CWA's National Pollutant Discharge Elimination System 1094 requirements, BARC is currently evaluating and pursuing options to reduce impervious surfaces. 1095 BARC is also a Phase II Municipal Separate Storm Sewer System (MS4) permit holder.

1096 **3.6.5** COASTAL ZONE

Maryland's coastal zone includes all of Prince George's County, including the Project Area. As a 1097 1098 federally owned property, BARC is statutorily excluded from the state's coastal zone. However, 1099 in accordance with the Coastal Zone Management Act of 1972 (16 USC 1451 et seq.), federal actions that have the potential to affect coastal zone resources must be consistent, to the maximum 1100 extent practicable, with the state's enforceable coastal zone policies. Because the Proposed Action 1101 1102 would have the potential to affect Maryland's coastal zone resources, BEP is required to determine 1103 the Proposed Action's consistency with the enforceable policies of the Maryland Coastal Zone 1104 Management Program (CZMP). The federal consistency determination is in Appendix E.

1105 **3.7 BIOLOGICAL RESOURCES**

1106 The ROI for biological resources includes the Project Area and areas within 1,500 feet. Beyond 1107 1,500 feet from the Project Area, potential impacts on biological resources would not be 1108 anticipated.

1109 **3.7.1** VEGETATION

1110 The proposed LOD for traffic improvements at Edmonston Road and the WSSC sanitary sewer 1111 alignment under Alternative 2 includes a large, forested wetland system that runs along the western edge of Edmonston Road (Appendix A, Figure 3-11a). The forested area includes five forest 1112 1113 stands with two cover types: red maple (Acer rubrum)/sweetgum (Liquidambar styraciflua) and 1114 oak/hickory with differing species of oak and bitternut hickory (Carya cordiformis) being the codominant species (BEP 2023a). Forested habitat, including one delineated forest stand, associated 1115 1116 with streams within the sanitary sewer alignment under Alternative 1 also occurs. Appendix A, 1117 Figure 3-13 shows forest stands delineated within the Project Area by USACE in October 2023; the completed forest stand delineation report is available in Appendix D. The remaining Project 1118 1119 Areas include pastures and farmland within BARC and mowed areas with ornamental trees.

1120 BARC is a part of the Piedmont Upland region of Maryland, which typically consists of oak/hickory forest and occupies the foothills west of the coastal plains. It encompasses 1121 1122 approximately 6,582 acres, with a mixture of forest, pasture, farmland, buildings, and wetlands. 1123 The Central Farm is primarily composed of forests and farmland, with scattered buildings and 1124 development present. The forests on the Central Farm are oak/hickory and maple/cherry old 1125 growth or mature stands (Treasury 2021a). The Piedmont region was farmed heavily upon the colonization of the U.S., and consequently, has few remaining old growth forest stands. BARC, 1126 once plantation land until 1865 and farmland until 1910, was converted to research agricultural 1127 1128 fields. Most forest stands are secondary growth forests that have reached maturity after their agricultural purpose was served. The East Farm contains the same types of forest, with smaller 1129

- amounts of developed area (Treasury 2021a). The composition of these forests mirror that found
- along Edmonston Road, particularly the oak/hickory stands located outside the wetland areas.

1132 **3.7.2** WILDLIFE

1133 Wildlife species in the Project Areas are those common to semi-rural/suburban areas in central 1134 Maryland. Wildlife habitat in the Project Areas include forest, open meadows, agricultural fields, 1135 emergent wetlands, and surface water, as well as the transition area (i.e., edge habitat) between 1136 these vegetative communities. Wildlife commonly associated with forested wetlands include 1137 muskrat (Ondatra zibethicus), blue heron (Ardea herodias), eastern box turtle (Terrapene carolina 1138 carolina), American toad (Anaxyrus americanus), and red bellied water snake (Nerodia 1139 erythrogaster). Wildlife that favors forest edge habitats include white-tailed deer (Odocoileus 1140 virginianus), eastern gray squirrel (Sciurus carolinensis), eastern chipmunk (Tamias striatus), eastern cottontail rabbit (Sylvilagus floridanus), red fox (Vulpes vulpes), and species of birds and 1141 1142 bats (Treasury 2021a).

1143 **3.7.3** FEDERAL AND STATE LISTED SPECIES

1144 BEP identified federally listed threatened and endangered species with potential to occur in the Project Area by using the USFWS Information for Planning and Consultation (IPaC) database. 1145 1146 The NLEB (Myotis septentrionalis) and the monarch butterfly (Danaus plexippus) were identified 1147 as species with the potential to occur within the Project Area. The NLEB is listed as "endangered," and the monarch butterfly is a "candidate" species per USFWS IPaC database (Appendix F). BEP 1148 1149 conducted an acoustic survey for the NLEB on and near the CPF Project Site in June 2019; 1150 however, no NLEBs were detected (BEP 2019). Further, no known NLEB hibernacula or 1151 maternity roosts exist in Prince George's County (Treasury 2021a). The tricolored bat (Perimyotis 1152 subflavus) is proposed for listing in this region; however, it is unknown if and when the species would be listed, and there is no USFWS guidance for avoidance, minimization, and mitigation of 1153 1154 impacts to the tricolored bat at this time. The primary threat to both the NLEB and tricolored bat 1155 species is white-nose syndrome. White-nose syndrome is a fungal infection the bats acquire during 1156 hibernation in caves and mines. The monarch butterfly is currently listed as a "candidate" species 1157 and is not currently listed or proposed for listing under the Endangered Species Act (ESA). 1158 Candidate species are plants and animals for which the USFWS has sufficient information on their 1159 biological status and threats to propose them as endangered or threatened under the ESA but for 1160 which the development of a proposed listing regulation is precluded by other higher-priority listing 1161 activities.

BEP consulted with MDNR to determine the potential presence of state-listed species in the Project Area (**Appendix B**). MDNR responded on June 30, 2022, that there are no records for state or federal listed, candidate, proposed or rare plant or animal species. MDNR stated that remote analysis suggests that traffic mitigation sites near Poultry Road and Edmonston Road include forested areas that have Forest Interior Dwelling Species (FIDS) bird habitat (**Appendix A, Figure 3-14**). FIDS need large, forested areas to breed successfully and maintain viable bird populations. Some FIDS species are declining due to habitat loss and fragmentation in forests.

1169 **3.7.4 BALD EAGLES**

1170 Bald eagles (*Haliaeetus leucocephalus*) nest on forest edges in large trees, often near farm fields 1171 or bodies of water. In Maryland, the bald eagle mating season begins in mid-December, with a

1172 clutch of one to three eggs laid by March. Hatching typically occurs in April, after which eagles

remain in the nest for about 12 weeks. Juvenile eagles learn to fly in June, and by August can hunt

- and fish on their own. Bald eagles forage over large bodies of water, such as rivers or lakes, as
- their diet consists of fish; however, they are also known to forage in nearby terrestrial areas for
- 1176 small mammals, birds, reptiles, and carrion (MDNR n.d.).

1177 No bald eagle nests exist within the traffic and utility mitigation boundaries. The closest known 1178 bald eagle nest is located approximately 0.6 miles southeast of the project footprint for 1179 improvements to Sheep Road (Maryland Bird Conservation Partnership 2023). Although the bald 1180 eagle was delisted from the ESA in 2007, it remains a federally protected species under the BGEPA 1181 and the MBTA. The BGEPA prohibits any disturbing activities that cause nest abandonment or

- decrease an eagle's productivity by interfering with normal breeding, feeding, or sheltering
- 1183 behavior.

1184 **3.7.5** Special Status Species – Migratory Birds

1185 Migratory birds use BARC for seasonal feeding grounds, breeding grounds, or for temporary stop-1186 over during migration (Treasury 2021a). BARC is a popular site among local bird watchers, who 1187 have identified over 200 species of migratory birds on BARC (see <u>eBird</u> for a list of bird sightings 1188 on BARC). Migratory birds are protected under the MBTA of 1918 which prohibits the take 1189 (including killing, capturing, selling, trading, and transport) of protected migratory bird species 1190 without prior authorization by the USFWS.

1191 **3.8 CULTURAL RESOURCES**

This EA defines cultural resources as buildings, sites, structures, districts, and landscapes that show evidence of human interaction with the physical environment and date to precontact or historic periods. The ROI for this analysis is the APE. The archaeological APE is the Project Area. The architectural history APE has two parts: the Project Area (i.e., where buildings and structures could be physically affected) and those off-site areas from which the Proposed Action would be distinctly visible (i.e., off-site areas that could be affected through changes in the viewshed). Please refer to the ROI for Aesthetics and Visual Resources for the latter in **Appendix A, Figure 3-16**.

1199 **3.8.1 Archaeological Resources**

1200 There are a total of 16 archaeological sites within the Project Area. Three known archaeological 1201 sites along Edmonston Road are partially located within the Project Area. Two of the 1202 archaeological sites contained precontact cultural materials and the other was identified as 1203 multicomponent, having both precontact and historic cultural materials. Eleven of the 1204 archaeological sites are found within the main CPF Project Area. These sites range from historic or pre-contact artifact scatters to historic refuse debris, historic or pre-contact isolates, and a 1205 standing brick building. One site lies within the Baltimore-Washington Parkway and Powder Mill 1206 1207 Road interchange, on land managed by NPS, and is identified as a multicomponent artifact scatter. While there is one known paleontological site at BARC, no paleontological sites are known to 1208 1209 exist within the Project Area specifically.

1210 **3.8.2** ARCHITECTURAL RESOURCES

1211 **3.8.2.1 HISTORIC DISTRICTS**

1212 There are two historic districts within the Project Area. The BARC Historic district encompasses

- 1213 6,582 acres across five locations (Farms) around Beltsville, MD. The history of BARC is tied to
- 1214 New Deal policies and programs, and the research over the past 100 years has contributed to the

1215 advancement of farming practices throughout the U.S. The Project Area is located on the Central 1216 Farm which contains 42 buildings and structures related to agricultural development of BARC over the last 100 years. The Baltimore-Washington Parkway Historic District, managed by the 1217 1218 NPS, is a 29-mile highway connecting Baltimore, MD, to Washinton, DC. It was created by a federal congressional act in 1920s and opened to vehicle traffic in 1954. The Baltimore-1219 1220 Washington Parkway's links several communities, parks, monuments, and has 125 contributing 1221 structures. One of the contributing structures, the bridge over Powder Mill Road, is within the 1222 Project Area. Part of the Project Area lies within the BARC Historic District and the Baltimore-1223 Washington Parkway Historic District; the roadway and utility improvements are in line with 1224 existing viewsheds of these districts. BARC Historic District was determined eligible for the 1225 NRHP under criteria A and C. It is the main facility for the Department of Agriculture, the national 1226 center for agricultural research, experimentation, and testing and its mission has not changed since 1227 it was established. The Baltimore-Washington Parkway is listed on the NRHP under criteria A and 1228 C. The parkway's association with urban development of the national capital as a federal center and is the only fully developed parkway in Maryland. A map of the historic districts is included in 1229 1230 Appendix A, Figure 3-15.

1231 **3.8.2.2** Cultural Landscapes

1232 A cultural landscape is a historically significant property that shows evidence of human interaction 1233 with the physical environment. The Project Area contains two cultural landscapes. Managed by 1234 the NPS, the Baltimore-Washington Parkway predominantly passes through undeveloped land 1235 which has aided in the preservation of forests and meadows along the parkway despite the 1236 surrounding suburban growth, stimulated in part by the existence of the Parkway. On BARC, the 1237 cultural landscape includes the precontact, historic, and present uses of the land. The landscape 1238 includes the intentionally designed layout of the BARC research areas, buildings, structures, and 1239 agricultural fields, as well as any traditional cultural properties that hold historic or contemporary 1240 significance to groups that consider them essential for the persistence of their traditional culture 1241 (USDA 2021).

1242 **3.9 AESTHETICS AND VISUAL RESOURCES**

1243 The ROI for visual resources is the viewshed from which the Project Area would be notably visible 1244 off-site, including federal and non-federal properties (Appendix A, Figure 3-16). Visual resources 1245 can be defined as the natural and manufactured features that constitute the aesthetic qualities of an 1246 area. Natural visual resources occur in the landscape, typically without human assistance, and 1247 include native or mostly undisturbed landforms, water bodies, vegetation, and animals, both wild 1248 and domesticated. The overall visual landscape is rural-suburban with mixed-use development and open space. The open space is interspersed with the built environment and includes wooded areas. 1249 1250 open meadows with mature trees, agricultural fields, lawns, roadways, and an interstate. The 1251 buildings include one- and two-story residences, a two-story private organization and one- to fivestory BARC facilities. 1252

Baltimore-Washington Parkway is designated as the Star-Spangled Banner Scenic Byway (State of Maryland 2019). **Appendix A, Figure 3-17** shows the footprint of the scenic byway within the Project Area. For more information about Maryland Scenic Byways, please refer to the 2023 Maryland Official Visitor's Guide (State of Maryland 2023). Prince George's County's RCP also designates Odell, Powder Mill, and Edmonston Roads as Historic Roads, Powder Mill Road as a Scenic Byway Connector, and Beaver Dam Road as a Scenic Road and Scenic Byway Sidetrack. 1259 The plan calls for protection of viewsheds from scenic and historic roads (M-NCPPC and Prince 1260 George's County Planning Department 2017).

1261 As stated in Section 3.8.2.1, part of the Project Area lies within the BARC Historic District and

1262 the Baltimore-Washington Parkway Historic District; the roadway and utility improvements are in 1263 line with existing viewsheds of these districts.

1264 **3.10 SOCIOECONOMICS**

The socioeconomics ROI is Prince George's County. The USCB decennial census and ACS datasets provide information on socioeconomic conditions in the U.S. Decennial census data is collected every 10 years and samples the entire population, whereas ACS data includes a subset of the population surveyed every year. BEP examined data from the 2020 Decennial Census and 2022 ACS 5-Year Estimate datasets for the socioeconomic ROI from Prince George's County and the state of Maryland to provide a comparative analysis of regional conditions.

1271 **3.10.1 POPULATION**

Table 3-5 provides information on population and population trends for Prince George's County and the state of Maryland. Compared to the state of Maryland, Prince George's County had a greater rate of population growth between the 2010 and 2020 decennial census. The percentage of

- 1275 the population under 18 years in the ROI is comparable to the state.
- 1276

Table 3-5. Population and Trends in the Socioeconomic ROI

Population and Trends	Prince George's County (ROI)	Maryland	
2010 Population ¹	863,420	5,773,552	
2022 Population ²	967,201	6,177,224	
Percent Change in Population from 2010–2020	12 percent (%)	7%	
Population Under 18 Years ³	22%	22%	

1277 Source(s): ¹USCB 2010 (Decennial Census, Table P1), ²USCB 2020 (Decennial Census, Table P1), ³USCB 2022 (ACS 5-Year Estimate, Table B09001)

1279 **3.10.2** HOUSING

- a whole. Prince George's County has a greater proportion of renters and higher median gross rent.
- 1282

Table 3-6. Housing Characteristics in the Socioeconomic ROI

Housing Characteristic	Prince George's County (ROI)	Maryland	
Total Housing Units ¹	341,057	2,318,124	
Owner-Occupied Housing Unit Rate ¹	62.4%	67.5%	
Median Value of Owner-Occupied Housing Units ²	\$380,500	\$380,500	
Renter-Occupied Housing Unit Rate ¹	37.6%	32.5%	
Median Gross Monthly Rent ³	\$1,593	\$1,485	

 1283
 Source: ¹USCB 2018-2022 (ACS 5-Year Estimate, Table B25003), ²USCB 2022 (ACS 5-Year Estimate, Table B25077), ³USCB

 1284
 2018-2022 (ACS 5-Year Estimate, Table B25064)

1285 **3.10.3** LABOR FORCE AND EMPLOYMENT

Most of the population over 16 years of age is part of the labor force in the county and state. The industry sectors in **Table 3-7** may be prevalent due to a high rate of employers within those industries which include universities, hospitals, and government facilities. The prevalence of these

industries indicates that there is a substantial professional workforce located in and around the

¹²⁸⁰ As shown in **Table 3-6**, housing values in Prince George's County are comparable to the state as

- 1290 ROI. Sectors that primarily contain skilled trades jobs, such as manufacturing and construction, do
- 1291 not have high incidences of employment across the geographies (i.e., approximately two percent
- 1292 and nine percent, respectively).
- 1293

Labor Force or Employment	Prince George's County (ROI)	Maryland	
Characteristic			
Approximate Employment Rate	69.9%	63.2%	
Largest Industry Sector for	Educational services, healthcare, and	Educational services, healthcare, and	
Employment (over 20% of	social assistance	social assistance	
labor force)			
Second Largest Industry Sector	Professional, scientific, and	Professional, scientific, and	
for Employment (15-20% of	management, and administrative and	management, and administrative and	
labor force)	waste management services	waste management services	

Table 3-7. Labor Force and Employment Characteristics in the Socioeconomic ROI

1294 Source: USCB 2022 (ACS 5-Year Estimate, Table DP03)

1295 3.10.4 COMMUNITY SERVICES

- 1296 Community services include facilities and services that are available to the entire public, such as
- 1297 schools, social services (programs or services that provide assistance to underprivileged groups),
- 1298 recreational facilities, hospitals, and emergency response services. Nine schools, one fire station,
- one police station, and one recreation center are located within a 1-mile radius of the Project Area 1299
- 1300 (Appendix A, Figure 3-18). No community or public services are located within the Project Area.

1301 3.11 ENVIRONMENTAL JUSTICE

- 1302 The ROI for considering impacts to communities with EJ concerns ("EJ ROI") was determined
- 1303 based on three factors: 1) the locations of the proposed intersection improvements; 2) the locations
- 1304 of those populations considered to be sensitive receptors for air quality, noise, and traffic impacts; 1305 and 3) those areas that may reasonably be considered subject to potential cumulative impacts from
- 1306 past and present projects of a similar nature in the local area (i.e., road and transportation
- 1307 improvements). The ROI for considering impacts to communities with EJ concerns was determined
- 1308 using three factors: 1) the locations of the proposed intersection improvements; 2) the locations of
- those populations considered to be sensitive receptors for air quality, noise, and traffic impact 1309
- 1310 analyses; and 3) the locations of those populations considered to be sensitive receptors for air
- 1311 quality, noise, and traffic impact analyses.
- 1312 Based on these factors, five BGs were included in the EJ ROI. BGs are subdivisions of CTs and
- 1313 generally contain between 600 and 3,000 people. The five EJ ROI BGs are contained within four
- CTs. Appendix A, Figure 3-18 depicts the BG boundaries along with the locations of the seven 1314
- 1315 intersections proposed for improvements. The legend indicates within which CT each BG is
- 1316 contained.

1317 **3.11.1** COMMUNITIES WITH ENVIRONMENTAL JUSTICE CONCERNS

- 1318 BEP used three EJ screening tools to determine the presence of populations with EJ concerns and 1319 existing EJ indicators:
- 1320 • The White House's CEQ Climate and EJ Screening Tool (CEJST) v 1.0 (CEQ 2022a)
- 1321 • The MDE EJ Screening Tool v 2.0 Beta (MDE 2023)
- USEPA's EJ Screening and Mapping Tool (EJScreen) v 2.2 (USEPA 2023a) 1322

1323 The following sections present relevant data from USCB along with each tool's screening results

and determination. To summarize, none of the four CTs are identified as disadvantaged by CEQ's

1325 CEJST. All of the CTs are identified as underserved and two are identified as overburdened by the

- 1326 MDE EJ Screening Tool. USEPA EJScreen identifies all five BGs and four of the CTs as 1327 containing vulnerable populations and indicates that all of the BGs and CTs currently experience
- 1328 environmental hazards or burdens relevant to this Project.

1329 **3.11.2** CENSUS DATA

Table 3-8—Table 3-14 present demographic and socioeconomic data for the EJ ROI on race and ethnicity, disability, educational attainment, income, and poverty status. The data was obtained from the USCB decennial census, the USCB 2018-2022 ACS 5-year estimate, or USEPA's EJScreen which uses USCB data. The EJScreen Community Reports for each of the four CTs, the five BGs, and the total EJ ROI are included in **Appendix G**.

1335

Table 3-8. Race and Ethnicity in the EJ ROI Block Groups

	CT 8074.08 BG 3	CT 8074.04 BG 2	CT 8074.08 BG 1	CT 8002.06 BG 2	CT 8004.11 BG 1
Population of One Race					
White	7%	17%	38%	9%	14%
Black	70%	20%	34%	80%	69%
American Indian	0%	0%	0%	0%	0%
Asian	9%	19%	12%	0%	10%
Hawaiian/Pacific Islander	0%	0%	0%	0%	0%
Other Race	2%	0%	0%	1%	0%
Hispanic (of any race)	11%	43%	10%	7%	11%
Population of Two or More Races	1%	1%	7%	2%	0%

1336Source: USCB 2017-2021, ACS 5-Year Estimate (retrieved from EJScreen Community Reports 2023)

The USCB 2018-2022 ACS 5-Year Estimate indicated that 0.2% of CT 8004.11 is American
Indian and Alaska Native. Twenty-three percent of that total identified as South American Indian.
The remaining population was not specified. None of the 1.1% identified as American Indian and

1340 Alaska Native in CT 8002.06 specified a Tribe. See **Appendix H** for individual reporting of tribal

affiliation data from USCB Table B02017 at the census tract level.

1342 Table 3-9. People of Color in the EJ ROI Block Groups Compared to State and U.S.

СТ	BG	People of Color	Percentile in Maryland	Percentile in U.S.
8074.08	3	93%	84 th	90 th
8074.04	2	83%	76 th	85 th
8074.08	1	49%	62 nd	73 rd
8002.06	2	83%	76 th	85 th
8004.11	1	86%	78 th	86 th

1343

Source: EJScreen Community Reports 2023

1344

1345 Table 3-9. Persons with Disabilities in the EJ ROI Block Groups Compared to State and 1346 U.S.

СТ	BG	Persons with Percentile in Disabilities Maryland		Percentile in U.S.
				1 oth
8074.08	3	11.1%	52 nd	40 th
8074.04	2	7.8%	25^{th}	17 th
8074.08	1	11.1%	52 nd	40 th
8002.06	2	12.3%	61 st	48 th
8004.11	1	12.2%	61 st	48 th

1347 1348 Source: EJScreen Community Reports 2023 (NOTE: This data is derived from Census ACS data at the tract level. BG values are calculated by multiplying the tract value by the block population weight.)

1349

Table 3-10. Educational Attainment in the EJ ROI

Population 25 years and older	CT 8074.08	CT 8074.04	CT 8002.06	CT 8004.11
Less than 9 th grade	5.0%	15.4%	1.8%	5.1%
High school graduate (includes equivalency)	11.5%	27.9%	14.5%	17.2%
Some college, no degree	15.9%	18.9%	11.7%	18.0%
Associate's degree	6.1%	6.9%	10.9%	4.0%
Bachelor's degree	34.5%	17.8%	58.9%	26.1%
Graduate or professional degree	25.1%	9.5%	24.8%	26.2%

1350 Source: USCB 2018-2022 (ACS 5-Year Estimate, Table S1501)

1351

1352 Table 3-11. Less Than High School Education in the EJ ROI Block Groups Compared to 1353 State and U.S.

СТ	BG	Less Than High School Education	Percentile in Maryland	Percentile in U.S.
8074.08	3	9%	62 nd	55 th
8074.04	2	15%	79 th	71 st
8074.08	1	9%	63 rd	56 th
8002.06	2	9%	61 st	54 th
8004.11	1	4%	31st	28 th
Source: E.JScreer	1 2023			

1354

1355

Table 3-12. Income Characteristics of the EJ ROI

Household Income in the Past 12 Months	СТ	СТ	СТ	СТ
(in 2022 Inflation-adjusted Dollars)	8074.08	8074.04	8002.06	8004.11
Less than \$10,000	3.9%	3.5%	7.0%	3.2%
\$10,000 to \$14,999	5.7%	0.0%	1.2%	0.7%
\$15,000 to \$24,999	3.6%	5.9%	10.9%	0.6%
\$25,000 to \$34,999	2.8%	4.0%	3.4%	6.3%
\$35,000 to \$49,999	9.5%	2.1%	8.0%	8.8%
\$50,000 to \$74,999	16.0%	16.4%	11.0%	7.6%
\$75,000 to \$99,999	6.3%	21.7%	12.9%	10.7%
\$100,000 to \$149,999	28.3%	26.2%	21.6%	21.3%
\$150,000 to \$199,999	10.5%	12.4%	10.0%	9.7%
\$200,000 or more	13.3%	7.8%	14.0%	31.0%

1356 Source: USCB 2018-2022 (ACS 5-Year Estimates, Table S1901)

1357	Table 3-13. Low Income Population in the EJ ROI Block Groups Compared to State and
1358	U.S.

СТ	BG	Less Than High School Education	Percentile in Maryland	Percentile in U.S.
8074.08	3	9%	29 th	16 th
8074.04	2	20%	55 th	38 th
8074.08	1	31%	73 rd	57 th
8002.06	2	34%	77 th	62 nd
8004.11	1	22%	58 th	40^{th}

1359 Source: EJScreen 2023

1360

Table 3-14. Poverty Status of the EJ ROI in the Past 12 Months

Percent Living Below the Poverty Level	CT 8074.08	CT 8074.04	CT 8002.06	CT 8004.11
Under 18 years old	12.6%	10.1%	8.7%	3.6%
18-64 years old	12.4%	8.6%	11.6%	6.0%

1361 Source: USCB 2018-2022 (ACS 5-Year Estimates, Table S1701)

1362 **3.11.3 CEJST**

- EO 14008 *Tackling the Climate Crisis at Home and Abroad* (Jan. 27, 2021) directed the development of CEJST as a geospatial mapping tool to identify disadvantaged communities. CEJST identifies communities that have been marginalized by society, overburdened by pollution, and underserved by infrastructure and other basic services.
- 1367 CEJST uses publicly available, nationally consistent datasets to identify disadvantaged 1368 communities (CEQ 2022b). The datasets are indicators of burdens that disadvantaged communities 1369 face. These burdens are related to climate change, the environment, health, and economic 1370 opportunity. Communities are considered disadvantaged if they are in CTs that meet the threshold 1371 for at least one of the tool's categories of burden, or if they are on lands within the boundaries of 1372 Federally Recognized Tribes.
- 1373 CEJST does not identify any of the four CTs in the EJ ROI as disadvantaged.

1374 **3.11.4 MD DEPARTMENT OF THE ENVIRONMENT EJ SCREENING TOOL 2.0 BETA**

- MDE developed the MDE EJ Screening Tool 2.0 Beta to allow users to identify potential
 underserved or overburdened communities in order to enhance agency compliance oversight,
 monitoring, investment, and to enhance meaningful engagement in areas with permitting activities.
 The tool enables users to better understand the nature and number of environmental stressors,
- 1379 sensitive populations, and potential disparities in communities. A summary is provided below, and
- 1380 Appendix G contains the MDE EJ Screening Tool report.

1381 **3.11.4.1 UNDERSERVED COMMUNITIES**

- 1382 MD State law defines "underserved communities" as "any Census Tract in which, according to
- the most recent USCB decennial census: 1) at least 25% of the residents qualify as low-income;
- 1384 2) or at least 50% of the residents identify as nonwhite; 3) or at least 15% of the residents have
- 1385 limited English proficiency."
- 1386 The MDE EJ Screening Tool identifies all four of the CTs in the ROI as underserved (**Table 3-15**).

СТ	Total Population	Percent Low-Income (bold indicates exceeds 25%)	Percent Minority (bold indicates exceeds 50%)	Percent Limited English Proficiency (bold indicates exceeds 15%)	Underserved
8074.08	5,804	15.33	62.59	1.22	TRUE
8074.04	5,575	25.12	79.82	9.75	TRUE
8002.06	3,908	22.54	82.65	4.57	TRUE
8004.11	3,958	15.2	81.18	2	TRUE

1387 Table 3-15. MDE EJ Screening Tool Data on Underserved Communities in the EJ ROI

1388Source: MDE EJ Screening Tool 2023 (2020 Census)

1389 **3.11.4.2 OVERBURDENED COMMUNITIES**

1390 MD State law defines "overburdened communities" using census and health data to calculate

pollution burden exposure, pollution burden environmental effects, and sensitive populations.
 MDE identifies overburdened communities as any CT in which these indicators are above the 75th

1393 percentile statewide.

1394 The MDE EJ Screening Tool identifies two of the four CTs in the ROI as overburdened (Table1395 3-16).

 Table 3-16. Overburdened Communities in the EJ ROI

СТ	Overburdened Percentile in MD (bold indicates exceeds 75 th)	Overburdened
8074.08	85.44	TRUE
8074.04	95.01	TRUE
8002.06	72.32	FALSE
8004.11	74.44	FALSE

1397 Source: MDE EJ Screening Tool 2023 (2020 Census)

1398 **3.11.5 USEPA EJSCREEN**

While the MDE EJ Screening Tool uses data from USEPA EJScreen, it does not provide an analysis at the BG level. Conversely, USEPA EJScreen does not designate BGs as communities with EJ concerns. However, USEPA EJScreen provides BG level data on vulnerable populations, existing pollution and sources, and socioeconomic barriers to public participation. The analysis of these factors below allows BEP determine if impacts of the Proposed Action would potentially be disproportionate on communities with EJ concerns. The following sections present the USEPA EJScreen data relevant to the Proposed Action Sections present the USEPA

1405 EJScreen data relevant to the Proposed Action. See **Appendix G** for the full reports.

1406 **3.11.5.1 USEPA EJSCREEN DEMOGRAPHIC INDEX – VULNERABLE POPULATIONS**

1407 The Demographic Index in USEPA EJScreen is a combination of percent low-income and percent

- 1408 people of color. Communities with a high Demographic Index can be considered more vulnerable
- 1409 to environmental hazards and burdens because they are faced with greater exposure to pollutants
- 1410 and lack the resources to respond to and cope with these environmental stressors.

¹³⁹⁶

1411 The Demographic Index is based on the average of two socioeconomic indicators: percent low-

- 1412 income and percent people of color. The resulting percentage is then calculated as a percentile
- 1413 comparing it to the nationwide percentage. This EA uses a Demographic Index threshold of greater
- 1414 than 60th percentile to indicate a potentially vulnerable population for this Proposed Action. At
- 1415 the CT level and at the BG level, the EJ ROI would be considered to have vulnerable populations
- 1416 (**Table 3-17Table 3-17** and **Table 3-18Table 3-18**).

1417 Table 3-17. USEPA EJScreen Demographic Index for the EJ ROI Census Tracts

СТ	Value (% people of color + % low-income) / 2	Percentile in US (bold indicates exceeds 60 th percentile)
8074.08	39%	64 th
8074.04	52%	76 th
8002.06	54%	77 th
8004.11	50%	74 th

1418Source: USEPA EJScreen v 2.2 Community Reports 2023a (2020 Census)

1419

Table 3-18. USEPA EJScreen Demographic Index for the EJ ROI BGs

СТ	BG	Value (% people of color + % low-income) / 2	Percentile in US (bold indicates exceeds 50th percentile)
8074.08	3	51%	75th
8074.04	2	52%	76th
8074.08	1	47%	71st
8002.06	2	63%	85th
8004.11	1	54%	78th

1420 Source: USEPA EJScreen v 2.2 Community Reports 2023a (2020 Census)

1421 **3.11.5.2 USEPA EJSCREEN ENVIRONMENTAL JUSTICE INDEX – EXISTING ENVIRONMENTAL** 1422 HAZARDS, RISKS, AND BURDENS

1423 USEPA EJScreen also calculates EJ Indices for BGs. The EJ Index is a combination of the 1424 Demographic Index and one of thirteen environmental indicators. USEPA presents the data on 1425 environmental indicators with a caution that they vary widely in what they indicate. The twelve 1426 environmental indicators are based on information developed from direct measurements, proxy 1427 estimates of pollution exposure, and facility location information. They are intended to be used to 1428 develop a better understanding of a community's potential vulnerability and disproportionate risk 1429 and exposure to inform programs, policies, and activities that may affect these communities.

1430 Four of the environmental indicators are relevant for this Project. The EJ Indices for existing

1431 Particulate Matter (PM) 2.5 and O₃ are relevant to the Air Quality discussion in Section 0, the EJ

1432 Index for Traffic Proximity is relevant to the Transportation discussion in Section 0, and the EJ

1433 Index for Hazardous Waste Proximity is relevant to the Hazardous and Toxic Materials and Waste

- 1434 discussion in Section 0.
- 1435 This EA has set an EJ Index threshold of greater than 80th percentile for the relevant EJ Indices to
- indicate that a vulnerable population may already be experiencing disproportionate environmental
- hazards.
- 1438 At the CT level, all four of the CTs have a higher level of environmental risk and burden from O₃;
- one CT may be considered to be exposed to higher levels of air pollution impacts due to traffic

1440 proximity, and two CTs may be considered to have a higher level of environmental risk and burden

- 1441 due to their proximity to Hazardous Waste (**Table 3-19**Table 3-19).
- 1442 Table 3-19. USEPA EJScreen Relevant EJ Indices for the EJ ROI Census Tracts

EJ Index	CT 8074.08	CT 8074.04	CT 8002.06	CT 8004.11		
	Percentile in U.S.					
(bold i	indicates exceeds 8	0 th percentile)				
PM 2.5	42 nd	42 nd	42 nd	42 nd		
O ₃	87 th	85 th	89 th	89 th		
Traffic Proximity	54 th	91 st	79 th	37 th		
Hazardous Waste Proximity	83 rd	83 rd	65 th	52 nd		

1443 Source: USEPA EJScreen v 2.2 Community Reports 2023a (2020 Census)

1444 At the BG level, all five of the BGs may be considered to have a higher level of environmental

risk and burden from O₃, two BGs may be considered to be exposed to higher levels of air pollution

1446 impacts due to traffic proximity, and four BGs may be considered to have a higher level of

1447 environmental risk and burden due to their proximity to Hazardous Waste (**Table 3-20Table 3-20**).

1448

Table 3-20. USEPA EJScreen Relevant EJ Indices for the EJ ROI

EJ Index	CT 8074.08	CT 8074.04	CT 8074.08	CT 8002.06	CT 8004.11
	BG 3	BG 2	BG 1	BG 2	BG 1
		Р	ercentile in U.S.		L
		(bold indica	tes exceeds 80 th p	ercentile)	
PM 2.5	69 th	69 th	66 th	75 th	70 th
O ₃	88 th	88 th	86 th	94 th	90 th
Traffic Proximity	77 th	90 th	72 nd	86 th	66 th
Hazardous Waste	87 th	85 th	83 rd	87 th	76 th
Proximity					

1449 Source: USEPA EJScreen v 2.2 Community Reports 2023a (2020 Census)

1450 3.11.5.3 USEPA EJSCREEN SOCIOECONOMIC INDICATORS

Communities with EJ concerns and other populations often require additional considerations when 1451 an agency seeks public participation in decision-making. For the communities in the EJ ROI, 1452 language translation services can support public engagement efforts. While USEPA EJScreen 1453 indicates that less than 10% of the households within each BG are designated Limited English 1454 1455 Speaking (LES), all of the BGs exceed the 50th percentile statewide (Table 3-21Table 3-21). Of those households that are LES, Spanish is the primary language spoken at home. Therefore, BEP 1456 has and will continue to provide all public participation print communications in English and 1457 1458 Spanish and will provide translation for live programs when practicable.

1459

Table 3-21. Relevant Socioeconomic Indicators for the EJ ROI

СТ	BG	LES Households	Percentile in MD	Primary Languages Spoken at Home
8074.0	8 3	8%	81 st	English 82% / Spanish 6%
8074.0	4 2	7%	80 th	English 37% / Spanish 36%
8074.0	8 1	4%	73 rd	English 82% / Spanish 6%
8002.0	6 2	3%	67 th	English 79% / Spanish 11%
8004.1	1 1	1%	58 th	English 65% / Spanish 8%

1460 Source: USEPA EJScreen v 2.2 Community Reports 2023a (2020 Census)

1461**3.12 PROTECTION OF CHILDREN**

1462 As stated in Section 3.1.19, 22 percent of the population of Prince George's County and of the 1463 population of the state of Maryland are under 18 years of age (USCB 2022).

The ROI for protection of children is the limits of work zones for proposed traffic, utility, and construction-related measures. Children are not expected to be present within the ROI due to the presence of safety measures which are typically employed during construction, including barriers to site entry.

1468 EO 13045 was enacted because children "may suffer disproportionately from environmental health 1469 risks," due to factors such as their greater exposure per body size and still-developing bodily 1470 systems (Clinton 1997). For these reasons, the protection of children is especially important in 1471 their earliest years. The Project Area is located almost entirely within CT 8074.08, wherein 5.4 1472 percent of the population is under five years old according to the 2020 Decennial Census; this is 1473 slightly lower than the comparable state and county populations (USCB 2020. Federal and state programs are in place to prevent, identify, and treat childhood lead poisoning, which can cause 1474 hearing and speech problems, brain and nervous system damage, and developmental delays 1475 1476 resulting in long-term diminished intelligence and educational performance (CDC 2023). Childhood lead poisoning is disproportionately identified in economically disadvantaged 1477 1478 communities, often resulting from exposure to deteriorating lead paint found in aging homes; 1479 however, blood lead levels found in the children of Prince George's County remain below the 1480 Maryland average (MDE 2020b).

1481 **3.13 TRANSPORTATION**

Section 3.10 of BEP's 2021 Final EIS presented detailed background information on existing traffic volumes, as well as projected changes in traffic volume and levels of service for numerous transportation routes, intersections, and modes of transit, with and without the proposed BEP CPF at BARC (BEP 2020; Treasury 2021a). Those analyses and detailed discussions are not repeated here but have been considered in the following effects analysis associated with constructing the seven proposed intersection improvements and asphalt resurfacing. **Appendix A, Figure 3-20** shows the intersections proposed for improvements.

For this EA, the Project Area for transportation impacts is the intersections proposed for mitigation and improvements and portions of roadways where subsurface utility extensions may cross beneath. This Project Area is applicable because the proposed improvements are highly localized, and construction of the improvements would not induce changes in traffic volume beyond the immediate boundaries of specific construction zones. The Proposed Action improvements have no reasonable mechanism to induce changes elsewhere in the larger Project Area analyzed in the Final EIS.

1496 **3.14 UTILITIES**

1497 The utilities ROI is the Project Area, as utility improvements to serve the replacement CPF are 1498 within the scope of the project.

3.14.1 WASTEWATER TREATMENT

WSSC provides sanitary sewer service in the project vicinity. Existing WSSC sewer mains are
located north of Odell Road and west of Edmonston Road and run parallel to the roads. These lines
convey sanitary sewer to the Blue Plains Advanced WWTP, which is the WWTP used by BEP's

- facilities in the Washinton, DC, area. Blue Plains WWTP has a treatment capacity of 384 milliongallons per day and a peak capacity of over 1 billion gallons per day (DC Water n.d.).
- Prior to discharge into the WSSC sanitary sewer system, BEP pre-treats in-house all industrial
 wastewater to WSSC standards. WSSC also monitors BEP's stream for compliance with WSSC
 standards.

1508 **3.14.2** ELECTRICITY

1509 Electricity in the vicinity of the Project Area is provided by PEPCO. There are overhead power lines along the eastern side of Edmonston Road within the Project Area, south of its intersection 1510 with Powder Mill Road, and along Powder Mill Road from the intersection with Edmonston Road 1511 to the intersection with Dairy Road North. There is an electric substation along Powder Mill Road 1512 about 0.1 miles east of the well access road area. North of the intersection of Edmonston Road and 1513 1514 Powder Mill Road, power lines run along the western side of Edmonston Road. There are also 1515 power lines along both sides of Odell Road and the western side of Ellington Drive within the 1516 Project Area.

3.14.3 OTHER UTILITIES

There are currently water, wastewater, natural gas, and telecommunication lines within the vicinity of the animal husbandry buildings, and within utility easements along Powder Mill Road, Edmonston Road, Odell Road, and Ellington Drive within the Project Area. Water lines are provided by WSSC, natural gas is provided by Washington Gas, and telecommunication lines are provided by Verizon (Treasury 2021a). These utilities support USDA facilities, and BEP would coordinate with USDA Utilities Management regarding new utility connections.

1524 **3.15 HAZARDOUS AND TOXIC MATERIALS AND WASTE**

1525 Hazardous materials defined by the Comprehensive Environmental Response, Compensation and 1526 Liability Act (CERCLA) include hazardous substances and toxic pollutants listed in the CWA

- 1520 Enabling Act (CERCER) include inazardous substances and toxic pollutants listed in the CWA 1527 sections 311 and 307(a), hazardous air pollutants found in section 112 of the CAA, and hazardous
- 1527 value of the section of the construction and Recovery Act (RCRA). HTMW are ignitable,
- 1529 corrosive, reactive, and toxic substances which pose a substantial threat to human health or the
- 1527 controstive, reactive, and toxic substances which pose a substantial linear to number health of the 1530 environment if improperly released, such as pesticides, petroleum products, and potentially 1531 bazardous construction materials
- 1531 hazardous construction materials.
- 1532 The ROI for HTMW includes the traffic and utilities mitigation Project Area plus a 0.25-mile 1533 buffer zone. These areas are in utility corridors located partially within and adjacent to the BARC 1534 campus which are generally in public ownership, some of which may have preexisting HTMW conditions due to prior land uses. Arsenic concentrations found in soils at the CPF site exceed the 1535 1536 regional screening level; however, these findings correlate with average background levels in the Central Maryland region (SIA-TPMC 2020b, 27). The BARC campus contains numerous Areas 1537 of Concern (AOCs) which have been added to the CERCLA National Priority List (NPL); 1538 however, Remedial Actions (RAs) are complete for most of these areas (USDA-ARS 2019). 1539

1540 **3.16 HEALTH AND PUBLIC SAFETY**

- 1541 The ROI for health and public safety includes the Project Area and all areas within 0.25 mile of
- 1542 the Project Area, which is consistent with the ROI for HTMW. The ROI includes all areas where
- 1543 human health and safety could be affected by the project.

1544 The health of site workers and public safety within the ROI is protected in accordance with EO 1545 12196, Occupational Safety and Health Programs for Federal Workers, and the 1970 OSHA and 1546 subsequent OSHA Standards for Construction and General Industry. These regulations ensure that 1547 programs are in place to enact safety measures protecting health and public safety, such as Treasury's Office of Environment, Health, and Safety Environmental Management System. 1548 1549 BARC also maintains Safety and Occupational Health staff, including an Emergency Preparedness 1550 Specialist, to coordinate emergency services and to oversee health and safety measures throughout 1551 the facility. Health and public safety concerns are related to construction site safety and pollution 1552 prevention within the ROI for traffic and utilities mitigation Project Areas.

1553 There are several emergency departments in the vicinity of the Project Areas. The Beltsville Police 1554 Department is located approximately one mile west of Edmonston Road and the Greenbelt Police 1555 Department is located approximately one mile south of the Edmonston Road Project Area. Prince 1556 George's Fire Station 831-Beltsville is located about 0.5 mile west of Edmonston Road, and 1557 Prince George's Fire Station 835-Greenbelt is located about 1.5 miles southeast of the 1558 Edmonston Road Project Area. The nearest hospitals are University of Maryland Laurel Medical 1559 Center about 3 miles north of the Odell Road sanitary sewer alignment, Doctor's Community Hospital about 3 miles southeast of the Edmonston Road traffic improvements footprint, and 1560 1561 Washington Adventist Hospital about 3.15 miles west of the Edmonston Road traffic 1562 improvements footprint.

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1580 **4. ENVIRONMENTAL CONSEQUENCES**

1581 **4.1 INTRODUCTION**

1582 This "Environmental Consequences" section analyzes both beneficial and adverse impacts that 1583 would result from implementing the alternatives analyzed in this EA. This chapter also includes 1584 definitions of impact thresholds, methods used to analyze impacts, and methods used for determining cumulative impacts. As required by the CEQ regulations on implementing NEPA, a 1585 summary of the environmental consequences for each alternative is provided in Table 2-1, which 1586 can be found in Section 2, Alternatives. The resource topics presented in this chapter and the 1587 1588 organization of the topics correspond to the resource discussions contained in Section 3, Affected 1589 Environment.

1590 4.1.1 FRAMEWORK FOR IMPACT ANALYSIS

BEP determined the potential environmental effects of the action alternatives as well as the No Action Alternative on each technical resource area by considering the context and intensity of the Proposed Action (40 CFR 1508.27). As appropriate, the impact analysis considers both construction and use of proposed improvements and presumes that the mitigation measures identified in **Appendix C**, **Table C-1**, would be implemented should BEP select one of the action alternatives for implementation.

- BEP consistently used the following categories to classify potential impacts to technical resourceareas:
- None: No adverse impacts would be expected.
- **Negligible**: Barely perceptible adverse impacts would be expected.
- Less than significant: Measurable or tangible adverse impacts would be expected but would not exceed the significance thresholds specified for the resource area.
- Significant: Adverse impacts would be obvious, either short-term or long-term, and would have profound consequences on a technical resource area that would be readily noticed by an observer. These impacts would include those that exceed a regulatory policy or standard. They could include impacts that could be mitigated to a less than significant level, as well as those that cannot. Significance thresholds are provided for each resource area.
- **Beneficial**: Impacts would improve the condition of the technical resource area in the ROI.
- Short-Term: Impacts would occur over the construction period and cease once construction is completed.
- Long-Term: Impacts would persist post-construction.

1612 **4.1.2** CUMULATIVE IMPACTS ANALYSIS METHOD

- 1613 In accordance with the Final Phase 1 Rule for CEQ's NEPA implementing regulations, dated 20 1614 April 2022, BEP examined the past, present, and reasonably foreseeable future actions in the 1615 Proposed Action's ROI and potential cumulative impacts that could result from the Proposed 1616 Action when considered with these other actions
- 1616 Action when considered with these other actions.
- 1617 The ROI for the cumulative impacts analysis is the same as the ROI for the analyzed resource
- areas, including the Project Area LODs and immediately adjacent lands. The ROI comprises areas
- 1619 where the Proposed Action's effects could interact with other actions and contribute to cumulative
- 1620 environmental impacts.

1621 The cumulative impacts analysis considers recent, ongoing, and reasonably near future actions 1622 occurring within the ROI and focuses on those actions that may affect the same resources as the 1623 Proposed Action, potentially contributing to cumulative effects. These actions include

1624 commercial, residential, mixed use, transportation, infrastructure, recreation, and institutional

- 1625 developments. BEP identified these actions through consultation with the USDA and research of
- 1626 publicly available information sources, such as local master plans, news articles, and federal, state,
- and local agencies' databases. **Table 4-1** provides a summary of ongoing and reasonably foreseeable future developments considered in this analysis.
- 1629 **4.2 LAND USE**
- 1630 Prince George's County land use and zoning maps, and applicable master plans were reviewed to 1631 analyze potential impacts to land use under the Proposed Action.
- 1632 For this analysis, BEP defined a significant adverse impact as one that would result in:
- A new land use that would result in discontinuation of or substantial change in existing adjacent land uses.
- Induced activities within the ROI, but beyond the Project Area, which are inconsistent with existing zoning designation(s).

1637 **4.2.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

1638 4.2.1.1 ANTICIPATED IMPACTS

1639 Alternative 1 would result in long-term, minor changes to land use within the Project Area. 1640 Minimal conversion of undeveloped land to pavement would occur within traffic improvement 1641 LODs; however, the land within the traffic improvement LODs consists primarily of established 1642 road buffers and is not used for agricultural or other purposes. Within the Baltimore-Washington 1643 Parkway LOD, approximately 0.2 acre of vegetated road buffer would be converted to pavement, 1644 and a 0.69-acre area would be converted to stormwater management. While the land use would 1645 change slightly on land managed by NPS, the overall land use would remain for transportation 1646 purposes and would not represent a change from existing conditions within the Parkway corridor 1647 and would not result in long-term, adverse impacts on land use within NPS-managed lands in the 1648 Project Area.

1649 The LODs for the Washington Gas connection, the sanitary sewer alignment, and a small portion 1650 of the gravel well access road contains undeveloped, forested land which would be developed for 1651 the improvements. Utility easements would be placed on the gas connection and sanitary sewer 1652 alignment. An approximately 0.13-acre utility easement would be placed on private property for the sanitary sewer alignment. The footprint of the bioswale maintenance access contains 1653 agricultural land that would be cleared to create a maintenance path. Use of the laydown area 1654 would also result in a temporary loss of agricultural land during construction, and this land would 1655 be unusable for planting after use of the laydown area has ceased, but could be used for other 1656 1657 agricultural uses such as animal grazing. While the Project Area contains land designated as SCA and PPA, the intensity of proposed uses within existing forested and agricultural areas is low, and 1658 1659 the footprint affected is small, resulting in minimal impact on forested and agricultural land use in the ROI. The proposed improvements would not result in the discontinuation of or any substantial 1660 1661 changes to existing adjacent land uses, would have no effect on zoning designations within the 1662 ROI, and would be consistent with master plans applicable to the Project Area. Therefore, long-1663 term impacts to land use would be less than significant.

1664 The new PEPCO electric lines and Verizon service lines would be installed on an existing 1665 powerline easement; any new poles added would follow existing pole routes within the existing

- 1666 right-of-way, with the purpose of providing stability for power lines. Therefore, no long-term
- 1667 impacts to land use would occur from installation of the new lines.
- While the Proposed Action would have no direct impacts to the PFA, roadway improvements couldbenefit future development in the PFA.

1670 **4.2.1.2 CUMULATIVE IMPACTS**

1671 Construction of Alternative 1 with ongoing and future developments would result in less than 1672 significant cumulative impacts on nearby land uses from conversion of undeveloped land to higher 1673 intensity uses. However, implementation of Alternative 1 would not result in any incompatible 1674 actions in the ROI that could interact with past, present, or reasonably foreseeable future actions.

1675 **4.2.1.3** CONCLUSION

1676 Implementation of Alternative 1 would result in long-term, less than significant impacts to land 1677 use. Less than significant cumulative impacts would result from the conversion of undeveloped

1678 land to higher intensity uses.

1679 **4.2.2 ALTERNATIVE 2**

1680 4.2.2.1 ANTICIPATED IMPACTS

1681 Impacts to land use under Alternative 2 would be the same as under Alternative 1, as described in 1682 Section 4.1.3.1, except for impacts associated with the sanitary sewer alignment. The sanitary sewer alignment under Alternative 2 contains agricultural lands and undeveloped, forested lands, 1683 including wetlands, which would be developed to provide sanitary sewer service to the new CPF. 1684 A utility easement would also be placed on the alignment; however, the easement would not 1685 encroach on private property. The footprint of agricultural land and undeveloped, forested land 1686 1687 that would be impacted is greater than under Alternative 1; however, the use intensity of the utility 1688 easement would be low. As under Alternative 1, the proposed improvements would not result in 1689 substantial loss of forested and agricultural lands within SCAs and PPAs, would not result in the 1690 discontinuation of or any substantial changes to existing, adjacent land uses, including agriculture and forested land use, would have no effect on zoning designations within the ROI, and would be 1691 1692 consistent with master plans applicable to the Project Area. Therefore, long-term impacts to land 1693 use would still be less than significant.

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Table 4-1. Ongoing and Reasonably Foreseeable Future Developments

No.	Project Name	Project Proponent	Status	Project Description
1	High-Speed Superconducting Magnetic Levitation System	USDOT - Federal Railroad Administration (FRA), Maryland Department of Transportation (MDOT)	Proposed (2021) – NEPA process off pause (USDOT- FRA et al. n.d.)	FRA and MDOT are proposing a high-speed ground transportation line between Baltimore, MD and Washington, DC, with an intermediate stop at Baltimore Washington International (BWI) Thurgood Marshall Airport. The MAGLEV system would include a viaduct or below-ground tunnel, tunnel portals ranging between 330 feet to 1,600 feet, Trainset Maintenance Facilities, Maintenance of Way Facilities, stations, Fresh Air and Emergency Egress sites, power facilities, operations control center, and signals and communications. The final alignment would extend 33 to 36 miles end-to-end, depending on which Build Alternative is selected. Source: (USDOT- FRA and MDOT 2021)
2	Cris Place	Cris Place, LLC	Proposed (2019) – Approval Pending	Construct four commercial buildings on parcels 1 and 2, totaling 22.53 acres. Source: (Prince George's County Planning Department 2023a)
3	Greenbelt Station	NVR MS Cavalier Fairwood, LLC	Proposed (2020) – Approval Pending	Construct a trail and boardwalk connection. Source: (Prince George's County Planning Department 2023b)
4	Harmony Gardens at Vansville	Potomac Realty Company	Proposed (2023) – Approval Pending	Construct 67 attached single-family dwellings on 7.75 acres. Source: (Prince George's County Planning Department 2023c)
5	Meier Place Emergency Vehicle Access	Prince George's County Department of Public Works and Transportation (DPW&T)	Proposed (2019) – Approval Pending	Construct a 0.74-acre emergency vehicle access within the public right-of-way for Meier Place. Source: (Prince George's County Planning Department 2023d)
6	SPARC Recreation Facility	10801 Rhode Island, LLC	Proposed (2023) – Approval Pending	Construct a 19,800 ft ² recreation facility on a 3.31-acre parcel. Source: (Prince George's County Planning Department 2023e)
7	Tesla Electric Vehicle Charging Station	Tesla	Proposed (2018) – Approval Pending	Install a Tesla electric vehicle charging station at an existing Wawa gas station. Source: (Prince George's County Planning Department 2023f)
8	Wingate Hotel	Joyce Engineering Corporation	Proposed (2018) – Approval Pending	Construct a 1.44-acre hotel. Source: (Prince George's County Planning Department 2023g)

No.	Project Name	Project Proponent	Status	Project Description
9	MD-212 Pine Street to US-1	SHA	Under Construction- Substantial Completion (2023)	Implement roadway widening, resurfacing, drainage improvements, curb and gutter installations, and new bicycle lanes and sidewalks to be completed by 2024 Source: (SHA 2023; NCR Transportation Planning Board [TPB] 2023)
10	Montpelier Drive Green Street Improvements	Prince George's County DPW&T	Under Construction (2023)	Install concrete islands and curb returns coupled with a significant road diet for traffic calming. Source (Prince George's County DPW&T 2023)
11	Sunnyside Avenue Bridge Replacement over Indian Creek	Prince George's County DPW&T	Under Construction – Project Closeout (2023)	Replace Sunnyside Avenue Bridge over Indian Creek and widen the roadway west of the CSX crossing to Kenilworth Avenue. Source: (Prince George's County DPW&T, 2023; NCR TPB 2023)
12	Route 201	MDOT	Proposed (2023)	Road improvements are proposed for 4.5 miles of MD 201 from the Beltway to the Intercounty Connector. This route currently follows parts of Old Baltimore Pike and Edmonston Road. Improvements include widening the road to four lanes, constructing an extension, and potentially including bicycle and pedestrian access. Proposed completion by 2045. Source: (NCR TPB 2023)
13	James J. Rowley Training Center	U.S. Secret Service	Proposed (2023)	Master Plan update for the training center, which will include completion of the following projects between FY24 and FY27: construction of a new indoor pistol range, physical training facility, defense tactical facility, protective operations facility, training center, in-service training facility, logistics facility, firing ranges, and facility maintenance storage yard; expansion of the PODC driving pad; upgrades to the main and east gates; construction of a back-up generator; and updates to the East Village Tactical Campus, to include renovations, expansions of existing facilities, and construction of new support buildings and an airport pad. Proposed improvements will also include 751 new parking spaces. Source: (USSS 2023)

No.	Project Name	Project Proponent	Status	Project Description
14	U.S. Food and Drug Administration (FDA) Muirkirk Road Campus Master Plan	FDA	Approved (2023)	Master Plan for 249-acre property owned by FDA at Muirkirk Road. Improvements will include construction of additional office space, laboratory space, special use spaces, maintenance/storage space, two new parking garages, and an elevated boardwalk. Source: (U.S. General Services Administration [GSA] 2023a, GSA 2023b, GSA 2023c)
15	I-95/I-495 at Greenbelt Metro Station Interchange Construction	SHA	Proposed (2023)	Construction of a full I-95/I-495 interchange at Greenbelt Metro Station by 2030. Source: (NCR TPB 2023)
16	Federal Bureau of Investigation (FBI) Headquarters (HQ) - Greenbelt	FBI	Proposed (2023)	Construction of the new FBI HQ on a 61-acre property. Improvements will include construction of a new main building, visitor center, truck inspection and remote delivery facility, central utility plant and associated utility infrastructure, and parking. Source: (GSA 2023d)

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1698 **4.2.2.2 CUMULATIVE IMPACTS**

1699 Cumulative impacts to land use would be the same as under Alternative 1, as described in Section1700 4.1.3.2.

1701 **4.2.2.3** CONCLUSION

- 1702 Implementation of Alternative 2 would result in long-term, less than significant impacts to land 1703 use. Less than significant cumulative impacts would result from conversion of undeveloped land
- 1704 to higher intensity uses.

1705 4.2.3 NO ACTION ALTERNATIVE

1706 **4.2.3.1** ANTICIPATED IMPACTS

Under the No Action Alternative BEP would not perform any improvements to traffic or utilities;therefore, there would be no impacts to land use.

1709 **4.2.3.2 CUMULATIVE IMPACTS**

1710 Under the No Action Alternative, there would be no cumulative impacts to land use.

1711 **4.2.3.3** CONCLUSION

1712 Under the No Action Alternative, there would be no long-term or short-term impacts to land use.1713 Consequently, there would be no cumulative impacts.

1714 4.3 TOPOGRAPHY AND SOILS

- 1715 USGS topographic maps and NRCS Soil Survey maps were reviewed to analyze potential impacts
- 1716 to topography and soils under the Proposed Action. For this analysis, BEP defined a significant
- 1717 adverse impact as one that would result in:
- Substantial soil erosion, sedimentation, and/or compaction.
- A Farmland Conversion Impact Rating of 160 or greater.

1720 4.3.1 ALTERNATIVE 1 (PREFERRED ALTERNATIVE)

1721 4.3.1.1 ANTICIPATED IMPACTS

1722 <u>Topography</u>

1723 Most of the proposed traffic improvements would have no long-term impact on topography as the 1724 existing road grades are already established. Some improvements, including road widening and addition of turn lanes, removal of a portion of Poultry Road, regrading of Sheep Road, construction 1725 of the entrance road for the CPF site, and construction of the well access road, would involve 1726 1727 excavation, grading, leveling, and similar earthwork which would alter topography in the immediate vicinity. Long-term changes to topography would be localized to roads and road 1728 1729 buffers, and grades would adhere to SHA and Prince George's County design standards. Within the Baltimore-Washington Parkway LOD specifically, there would be an increase of 1730 1731 approximately 0.2 acre of impervious surface for roadway improvements; however, most 1732 improvements would occur on existing paved areas (2.73 acres). Topography may also be altered for a 0.69-acre stormwater management area. Construction of road and underground utility 1733 improvements and implementation of erosion and sediment control best management practices 1734 1735 (BMPs) may cause minor changes to topography, but topography would be reestablished after

- 1736 construction. Construction would not create unsightly or unsafe topographic features. Therefore,
- 1737 both long-term and short-term impacts to topography would be less than significant.
- 1738 <u>Soils</u>

1739 Under Alternative 1, existing vegetation would be removed during construction within the LOD,

- 1740 rendering soils exposed and more susceptible to erosion. Soils in the LOD could also be compacted
- 1741 from use of heavy equipment during construction. As stated in Section 3.2.2, on-site soils have a 1742 medium to high susceptibility to compaction, and approximately one-third of the soils have a
- moderate to high potential for erosion (>0.35 K-factor). Implementation of the Environmental
- 1744 Protection Measures (EPMs) and Regulatory Compliance Measures (RCMs) as described in
- 1745 Section 2.3, however, would minimize these potential impacts, resulting in short-term, less than
- 1746 significant impacts to soils during construction.
- 1747 Once constructed, Alternative 1 would increase impervious surface within the LOD for the traffic
- 1748 improvement sites where lane widening, and the addition of turn lanes are implemented. Within
- the Baltimore-Washington Parkway LOD, 0.2 acre of roadside vegetation (grass) would be
- 1750 converted to pavement, resulting in permanent adverse impacts on soils in that location. However, 1751 the soils are previously disturbed from the original roadway construction and are defined as
- 1751 the solis are previously distanced from the original loadway construction and are defined as 1752 "highway" soils (Appendix A, Figure 3-7) and the disturbance is within the existing roadway 1753 corridor. Additional impervious surfaces would increase stormwater runoff from the Project Area 1754 and the potential for soil erosion and sedimentation in receiving waterbodies. BEP, however, 1755 would incorporate stormwater management features and practices into the design. BEP would 1756 revegetate all pervious surfaces disturbed during construction of Alternative 1; no exposed soil 1757 would remain on the Project Area. With implementation of these measures, long-term impacts to
- 1758 soils would be less than significant.
- BEP completed a Farmland Conversion Impact Rating Form (USDA Form AD-1006) in consultation with the NRCS to determine the overall potential impact to FPPA-designated soils. A Farmland Conversion Impact Rating of 160 or greater would be considered a significant impact. The Proposed Action received a site assessment score of 102. As this score is below 160, no further consideration for farmland conversion is required. **Appendix I** contains a copy of the current Farmland Conversion Impact Rating Form.

1765 **4.3.1.2 CUMULATIVE IMPACTS**

- 1766 Construction of Alternative 1 considered with past, present, and reasonably foreseeable future 1767 actions would result in cumulative disturbance to soils and topography due to earth moving and grading activities. The primary impacts associated with soil disturbance would result from 1768 1769 increased erosion of exposed soils and compaction from construction vehicles and equipment. Soil 1770 stabilization EPMs and erosion and sediment control BMPs would be required to protect both soil 1771 and water resources during construction. With the appropriate EPMs and BMPs, construction of 1772 Alternative 1, in conjunction with other past, present, and reasonably foreseeable future actions, is expected to result in less than significant cumulative impacts to topography and soils. 1773
- 1774 Long-term implementation of Alternative 1, along with past, present, and reasonably foreseeable 1775 future actions, would increase impervious surfaces within the ROI. The additional impervious area 1776 would result in a collective increase in stormwater runoff that would cause soil erosion and 1777 sedimentation. BEP's incorporation of stormwater management features and practices into the 1778 design, along with revegetation of remaining pervious surfaces, would minimize the Proposed

Action's contribution towards adverse cumulative effects, resulting in less than significantcumulative impacts.

1781 **4.3.1.3** CONCLUSION

1782 Implementation of Alternative 1 would result in both short-term and long-term, less than 1783 significant impacts to topography and soils. Less than significant cumulative impacts would result 1784 from construction-related disturbances to topography and soils and an increase in impervious 1785 surfaces.

1786 **4.3.2 ALTERNATIVE 2**

1787 4.3.2.1 ANTICIPATED IMPACTS

1788 Impacts to topography and soils would be the same as under Alternative 1, as described in Section 1789 4.1.6.1, except for impacts associated with construction of the sanitary sewer line. The footprint 1790 of disturbance to topography and soils would be greater under Alternative 2 due to the longer 1791 length of the proposed sanitary sewer line. These disturbances would be short-term and would 1792 cease once construction is completed. As under Alternative 1, BMPs, EPMs, and RCMs would be 1793 implemented. Therefore, both short-term and long-term impacts to topography and soils would 1794 still be less than significant.

BEP completed a Farmland Conversion Impact Rating Form (USDA Form AD-1006) in consultation with the NRCS to determine the overall potential impact to FPPA-designated soils. Alternative 2 received a site assessment score of 108. As this score is below 160, no further consideration for farmland conversion is required. **Appendix I** contains a copy of the current Farmland Conversion Impact Rating Form.

1800 4.3.2.2 CUMULATIVE IMPACTS

- 1801 Cumulative impacts to topography and soils would be the same as under Alternative 1, as described1802 in Section 4.1.6.2.
- 1803 **4.3.2.3** CONCLUSION
- 1804 Implementation of Alternative 2 would result in both short-term and long-term, less than 1805 significant impacts to topography and soils. Less than significant cumulative impacts would result 1806 from construction-related disturbances to topography and soils and an increase in impervious 1807 surfaces.
- **1808 4.3.3 NO ACTION ALTERNATIVE**

1809 **4.3.3.1** ANTICIPATED IMPACTS

- 1810 Under the No Action Alternative BEP would not perform any improvements to traffic or utilities;1811 therefore, there would be no impacts to topography or soils.
- 1812 **4.3.3.2 CUMULATIVE IMPACTS**
- 1813 Under the No Action Alternative, there would be no cumulative impacts to topography or soils.
- 1814 **4.3.3.3 CONCLUSION**
- 1815 Under the No Action Alternative, there would be no long-term or short-term impacts to topography
- 1816 or soils. Consequently, there would be no cumulative impacts.

1817 **4.4 NOISE**

- 1818 For this analysis, BEP assumed that a significant impact would occur if noise levels would:
- Violate applicable noise regulations.
- Exceed 85 dBA for noise-sensitive receptors during construction activities with implementation of a noise-suppression plan prepared by BEP or its construction contractors.
- Affect noise-sensitive receptors at levels above Prince George's County noise ordinance limits identified in Section 3.3 during use of proposed improvements.

1825 **4.4.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

1826 4.4.1.1 ANTICIPATED IMPACTS

1827 While the ROI under Alternative 1 includes areas that are largely already subject to traffic noise and noise from farm equipment, construction of traffic and utility improvements would 1828 1829 temporarily increase noise levels due use of construction equipment and machinery and an increase 1830 in traffic from heavy trucks and construction workers' privately owned vehicles traveling to and 1831 from the Project Areas where construction for roadway and utility improvements are proposed. 1832 This increase in noise levels would cease upon completion of construction of traffic and utility improvements. To minimize noise impacts to residents, construction would primarily be conducted 1833 1834 during standard daylight working hours and on weekdays. Additionally, a noise suppression plan 1835 would be prepared by BEP or its construction contractors to identify ways to minimize noise impacts to surrounding residents and businesses. With implementation of these impact-reduction 1836 measures and others listed in Section 0, short-term noise impacts would be less than significant. 1837

- 1838 Removal of rumble strips on Powder Mill Road would reduce noise levels and noise complaints
- 1839 from BARC employees and the community. Therefore, Alternative 1 would have a long-term,
- 1840 beneficial impact on noise levels.

1841 4.4.1.2 CUMULATIVE IMPACTS

1842 Construction activities from Alternative 1 with ongoing and future developments would cause less 1843 than significant adverse cumulative impacts on noise in the ROI. The use of heavy equipment at 1844 construction sites would increase local noise levels, as would the commute of heavy trucks and 1845 construction worker vehicles. In addition, construction of other transportation improvement 1846 projects, along with Alternative 1, would result in traffic congestion which would cause nearby 1847 landowners/users to experience temporarily increased noise levels. However, noise impacts across 1848 the ROI would be consistent with previous development, temporary, and phased. In addition, noise 1849 levels would follow the Noise Control Act of 1972 and Prince George's County Noise Ordinance, 1850 and construction workers would comply with OSHA safety requirements regarding noise safety.

1851 **4.4.1.3** CONCLUSION

- 1852 Implementation of Alternative 1 would have short-term, less than significant impacts and long-
- 1853 term, beneficial impacts to noise levels with the removal of the rumble strips. Less than significant
- 1854 cumulative impacts would result from increased noise levels associated with construction; these
- 1855 impacts would be temporary and cease once construction has been completed.

1856 **4.4.2 ALTERNATIVE 2**

1857 4.4.2.1 ANTICIPATED IMPACTS

1858 Impacts to the noise environment would be the same as under Alternative 1, as described in Section 1859 4.1.9.1, except for noise associated with construction of the new sanitary sewer line. The sanitary 1860 sewer alignment under Alternative 2 is further removed from sensitive receptors than the alignment 1861 under Alternative 1; as such, the residences north of Odell Road would not be as affected by 1862 construction noise. Short-term noise impacts would still be less than significant.

1863 4.4.2.2 CUMULATIVE IMPACTS

- 1864 Cumulative impacts to noise levels would be the same as under Alternative 1, as described in 1865 Section 4.1.9.2.
- 1866 **4.4.2.3** CONCLUSION
- 1867 Implementation of Alternative 2 would have short-term, less than significant impacts and long-1868 term, beneficial impacts to noise levels. Less than significant cumulative impacts would result 1869 from increased noise levels associated with construction; these impacts would be temporary and 1870 cease once construction has been completed.
- **1871 4.4.3 NO ACTION ALTERNATIVE**

1872 4.4.3.1 ANTICIPATED IMPACTS

1873 Under the No Action Alternative BEP would not perform any improvements to traffic or utilities;1874 therefore, there would be no impacts to noise.

1875 **4.4.3.2 CUMULATIVE IMPACTS**

- 1876 Under the No Action Alternative, there would be no cumulative impacts to noise.
- 1877 **4.4.3.3** CONCLUSION
- 1878 Under the No Action Alternative, there would be no long-term or short-term impacts to noise.1879 Consequently, there would be no cumulative impacts.

1880 **4.5 AIR QUALITY**

- 1881 This section identifies and discloses potential air quality impacts from criteria pollutant and GHG 1882 emissions associated with all three alternatives.
- 1883 Because this is a federal Proposed Action in a marginal (2008 8-hour O₃) and moderate (2015 8-
- 1884 hour O₃) non-attainment area, estimated criteria pollutant emissions were calculated and compared
- to the applicable de minimis levels specified in Maryland's federally enforceable SIP: 25 tons per
- 1886 year (tpy) for volatile organic compounds (VOC) and nitrogen oxides (NOx). Although the
- 1887 conformity analysis is required only for non-attainment or maintenance area pollutants (i.e., O₃ in
- 1888 Prince George's County), emissions for other criteria pollutants were compared to the 100 tpy de
- minimis thresholds. A formal CAA General Conformity Analysis would need to be prepared if the Proposed Action would result in an increase of 25 tons per year or more of NO_x or VOCs (O_3)
- 1890 Proposed Action would result in an increase of 25 tons per year or more of NO_x 1891 precursors).
- 1892 Significant air quality impacts would occur if implementation of an action alternative would 1893 directly or indirectly:
- 1893 directly or indirectly:

- Expose people to localized (as opposed to regional) air pollutant concentrations that violate
 state or federal ambient air quality standards;
- Cause a net increase in pollutant or pollutant precursor emissions that exceeds relevant
 emission significance thresholds (such as CAA conformity de minimis levels or the
 numerical values of major source thresholds for nonattainment pollutants); or,
- Conflict with adopted air quality management plan policies or programs.

1900 The environmental impact methodology for air quality impacts presented in this EA is derived 1901 from the U.S. Air Force (USAF) Manual 32-7002, Environmental Compliance and Pollution 1902 Prevention (February 2020). Emissions were estimated using the USAF's Air Conformity 1903 Applicability Model ([ACAM]; version 5.021a), which models emissions based on the inputs and 1904 estimates air emissions for each specific criteria and precursor pollutant, as defined in the NAAQS. 1905 The calculated emissions are then compared against the applicable threshold based on the 1906 attainment status of the ROI. If the annual net increase in emissions from the Proposed Action are 1907 below the applicable thresholds, then the Proposed Action and alternatives are not considered 1908 significant and would not be subject to further conformity determination. ACAM modeling inputs 1909 for the Proposed Action included land clearing, grading, and paving for intersection and roadway 1910 improvements, and trenching to install the subsurface piping for sanitary sewerage and natural gas. 1911 Assumptions of the model, methods, and detailed summary results are provided in Appendix J of

1912 this EA.

1913 **4.5.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

1914 4.5.1.1 ANTICIPATED IMPACTS

1915 Under the Proposed Action, short-term emissions would be generated from fugitive dust from 1916 grading/site preparation, the equipment used to construct the mitigation elements at each 1917 intersection, workers commuting to and from the work sites, the delivery of aggregate (e.g., asphalt 1918 and stone), asphalt curing, and to create trenches in subsurface soil where utility piping would be 1919 installed and then backfilled with the original soil or clean fill. Detailed inputs and emissions 1920 factors are presented in **Appendix J**.

- 1921 *Fugitive Dust*
- 1922 The Proposed Action would temporarily expose soil that previously was covered with asphalt or
- vegetation. Construction activities often generate fugitive dust when soils become exposed and
- subjected to mechanical or natural disturbance. The amount of fugitive dust, also referred to as
- 1925 total suspended particles, can be estimated from the area of ground surface exposed, the type and 1926 intensity of activity, soil type and conditions, wind speed, and dust control measures used.
- 1920 Intensity of activity, son type and conditions, whild speed, and dust control measures used.
- 1927 To limit fugitive dust emissions, construction BMPs would be used by the construction contractor.
- 1928 The BMPs would include spraying exposed soils with water to suppress dust, keeping loose soil
- 1929 off roadways by removing loose soil from mobile construction equipment, halting construction
- activities during high wind events (>50 mph), and covering soil stockpiles with tarps.
- 1931 Fugitive dust would not be generated once soil is covered with asphalt, vegetation, or stone, and
- 1932 construction is complete. Therefore, there would be no long-term fugitive dust impact from1933 construction.
- 1934
- 1935

1936 Off-Road Construction Equipment

- 1937 Construction of the intersection and roadway improvements, as well as trenching, would require 1938 off-road construction equipment, such as excavators, graders, trenchers, compactors, pavers, and 1939 rollers. This equipment would be used to remove existing asphalt and soil, install new base 1940 materials, new asphalt, create trenches, and backfill and compact soil. This equipment uses diesel-1941 fueled internal combustion engines, which emit criteria pollutants when in use. This off-road 1942 equipment is not designed for routine travel on roadways and therefore is delivered on a trailer bed
- 1943 for use at a designated work site.
- 1944 To limit emissions from off-road construction equipment, the contractor would utilize Tier 4-type 1945 engines, prohibit excessive idling, adhere to equipment maintenance programs, use particulate 1946 filters, and use ultra-low sulfur diesel (ULSD) fuel when possible.
- 1947 Once construction at a given work area is complete, the off-road equipment would be removed,
- 1948 and emissions would stop. Therefore, there would be no long-term impact on air quality from off-
- 1949 road construction equipment.

1950 <u>On-Road Heavy-Duty Construction Vehicles</u>

- 1951 Construction of the action alternatives would utilize on-road heavy-duty vehicles, such as semi-
- 1952 trucks with multi-axle trailers, which can transport off-road construction equipment and materials,
- such as asphalt and aggregate and other materials and supplies to each work area. On-road heavy
- 1954 duty construction/haul trucks use diesel-fueled internal combustion engines, which emit criteria
- 1955 pollutants when in use.
- 1956 To limit emissions from on-road heavy duty vehicles, the contractor would utilize Tier 4-type
- engines, prohibit excessive idling, adhere to equipment maintenance programs, use particulate
 filters, and use ULSD fuel when possible. Additionally, off-road construction equipment would
- 1958 only be mobilized at the start and end of construction at a given site, such that the travel distance
- 1960 of on-road heavy duty equipment delivery vehicles is limited.
- 1961 Once construction at a given work area is complete, on-road heavy duty vehicles would no longer 1962 travel to that area and emissions would stop. Therefore, there would be no long-term impact on air 1963 quality from on-road heavy duty construction vehicles.
- 1964 <u>Construction Workers' Vehicle Emissions</u>
- 1965 Gasoline-fueled passenger vehicles used by construction workers to travel to and from each 1966 construction area would generate criteria pollutants. During the construction phase, construction 1967 workers may temporarily reside in local area lodging, even if they originate from outside of the 1968 National Capital Region. The emissions estimates for construction workers' vehicles assume that
- 1969 workers would have a 20-mile round trip to and from local area lodging and each construction site.
- 1970 To limit emissions from passenger vehicles, the contractor would promote carpooling and prohibit 1971 engine idling once at the work site.
- 1972 Once construction at a given work area is complete, construction workers' passenger vehicles
- 1973 would no longer travel to that area and emissions would stop. Therefore, there would be no long-1974 term impact on air quality from passenger vehicles.
- 1975
- 1976

1977 <u>Asphalt Curing</u>

Emissions of VOCs would be generated during the asphalt curing process at intersections and roadways where new asphalt paving occurs. Approximately 12.5 acres of roadways would require new asphalt. The VOC emissions would be temporary and dissipate following up to 24 hours of ouring

- 1981 curing.
- 1982 *Operational Impacts*

Once the construction activities are completed, Alternative 1 would not generate emissions and there would be no long-term adverse impacts on air quality. Transportation models prepared for USACE as part of the TIS (BEP 2020) concluded that traffic flow would be improved at the mitigated intersections, reducing vehicle queuing times and the associated emissions, benefiting air quality as compared to existing conditions.

1988 4.5.1.2 CUMULATIVE IMPACTS

Incremental impacts from emissions of criteria pollutants during the Proposed Action construction period (Alternative 1 or 2), when added to other past, present, and reasonably foreseeable future actions, have been considered. No significant impacts were identified. The addition of the Proposed Action emissions to emissions from other projects would not change the attainment status of any criteria pollutant in Prince George's County or elsewhere in Maryland. Additionally, Proposed Action emissions generated at an ROI would not persist at that ROI and would be distributed to the atmosphere throughout the region.

1996 **4.5.1.3** CONCLUSION

1997 NO_x , PM_{10} , and $PM_{2.5}$ are the criteria pollutants of greatest concern with respect to the Proposed 1998 Action. NO_x emissions are generated by construction equipment and employee vehicle engines and would contribute to regional O3 concentrations. PM emissions result from excavation, grading, 1999 2000 and vehicle and equipment exhaust. Total emissions associated with construction of the Proposed 2001 Action under Alternative 1 were estimated using ACAM (Table 4-2). Based on these estimates, 2002 none of the estimated emissions associated with constructing the Proposed Action under 2003 Alternative 1 are above the conformity threshold values established at 40 CFR Part 93.153(b) and 2004 would not interfere with MD SIPs for NAAQS. Therefore, the requirements of the General 2005 Conformity Rule are not applicable.

2006

Pollutant	Action Emissions (ton/yr)	Action Emissions (ton/yr)	GENERAL CONFORMITY	
			De minimis threshold (ton/yr)	Exceedance (Yes or No)
Year	2027	2028	[40 CFR 93.153(b)(1,2)]	
VOC	0.028	0.659	25	No
NOx	0.193	5.044	25	No
СО	0.302	7.142	100	No
Sulfur Oxide (SO _x)	0.001	0.012	100	No
PM10	2.7	67.185	100	No
PM2.5	0.007	0.181	100	No

Table 4-2. Emissions for All Construction Activities under Alternative 1

2007 **4.5.2** ALTERNATIVE **2**

2008 The same approach for estimating emissions under Alternative 1 was used for Alternative 2. As a 2009 result, the air quality analysis methodology is the same for both alternatives; the only difference is the number of criteria pollutants emitted by each alternative. The difference in construction 2010 2011 between alternatives is limited to the alignment for the proposed sanitary sewerage system. Under 2012 Alternative 2, new subsurface sanitary sewerage piping would extend southwest from the CPF to Powder Mill Road and terminate near Indian Creek. A comparison of Alternatives 1 and 2 sanitary 2013 2014 sewer construction differences is presented in Table 4-3. There are no other differences between 2015 Alternatives 1 and 2.

2016 Table 4-3. Differences in Sanitary Sewerage Construction Between Alternatives 1 and 2

Action Alternative	Location of sanitary sewerage trenching and piping	Length (linear feet)	Estimated construction period (months)
Alternative 1	From CPF, cross Odell Road and extend north, terminate south of Ammendale Way	800	1
Alternative 2	From CPF, extend southwest across BARC, cross Powder Mill Road, terminate near Indian Creek	4,900	3

2017 **4.5.2.1 ANTICIPATED IMPACTS**

Emissions would be slightly higher for Alternative 2, in comparison with Alternative 1, due to the longer distance for trenching and a longer construction period. Temporary air quality impacts to the ROI encompassing the residences near the intersection of Powder Mill Road and Edmonston

2021 Road would occur during the trenching and pipe installation at this intersection. The Alternative 2

2022 emissions estimates are presented in **Table 4-4**.

2023

Pollutant	Action Emissions (ton/yr)	Action Emissions (ton/yr)	GENERAL CONFORMITY	
	(*****		De minimis threshold (ton/yr) [40 CFR	Exceedance (Yes or No)
Year	2027	2028	93.153(b)(1,2)]	
VOC	0.028	0.66	25	No
NO _x	0.193	5.063	25	No
СО	0.302	7.155	100	No
SOx	0.001	0.012	100	No
PM ₁₀	2.7	69.143	100	No
PM2.5	0.007	0.181	100	No

2024 4.5.2.2 CUMULATIVE IMPACTS

2025 Cumulative impacts to air quality and sensitive receptors would be the same as under Alternative2026 1, as described in Section 4.1.12.2.

2027 **4.5.2.3** CONCLUSION

Total emissions associated with construction of the Proposed Action under Alternative 2 were estimated for each phase of construction (**Table 4-2**). Based on these estimates, none of the estimated emissions associated with constructing the Proposed Action under Alternative 2 are above the conformity threshold values established at 40 CFR Part 93.153(b) or above MD SIP thresholds. Therefore, the requirements of the General Conformity Rule are not applicable.

2033 4.5.3 NO ACTION ALTERNATIVE

2034 4.5.3.1 ANTICIPATED IMPACTS

2035 Under the No Action Alternative, the proposed intersection and other roadway improvements and 2036 sanitary sewerage extensions would not be constructed. Emissions from vehicles would continue 2037 to be generated within the primary ROI and each intersection ROI. Therefore, there would be no 2038 new impacts on air quality under the No Action Alternative.

2039 4.5.3.2 CUMULATIVE IMPACTS

- Under the No Action Alternative, cumulative impacts to air quality would continue to be generated
 from past, present, and proposed future projects. The No Action alternative would not contribute
 to these cumulative impacts.
- 2043 **4.5.3.3** CONCLUSION
- 2044 Under the No Action Alternative, the ambient air quality environment and GHG emissions would 2045 remain unchanged.

2046 **4.6 CLIMATE CHANGE AND GREENHOUSE GAS**

This section identifies and discloses potential air quality impacts from GHG emissions associated with the Proposed Action, Alternative 2, and the No Action Alternative. The emissions of carbon dioxide (CO₂) equivalent (CO₂e) were estimated using ACAM for each alternative. CO₂e means the number of metric tons of CO₂ emissions with the same global warming potential as one metric ton of another GHG and is calculated using Equation A-1 in 40 CFR Part 98 (USEPA 2023d). Detailed inputs and emissions factors used to estimate GHG emissions are presented in **Appendix J**.

2054 A significance threshold has not been established for GHG emissions and climate change. The 2055 change in climate conditions is a global effect. The GHG emissions from the Proposed Action 2056 would not have a significant impact on climate change vulnerability because the Proposed Action 2057 would have a negligible contribution on the overall quantity of GHGs emitted locally, regionally, nationally, and globally. However, this section includes an estimate of GHG emissions. 2058 2059 Additionally, an estimate of the social cost of carbon (the cost associated with emitting GHG) is 2060 also provided. The detailed calculations to estimate the social cost of carbon are presented in 2061 Appendix J.

2062 **4.6.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

2063 4.6.1.1 ANTICIPATED IMPACTS

Emissions from on-road heavy and light-duty diesel-fueled trucks associated with the delivery and distribution of construction materials (e.g., asphalt and stone), construction workers' passenger vehicles, and construction of roadway improvements were included in this analysis. As previously stated, a significant threshold has not been established for GHG emissions and climate change, as these changes in climate conditions are considered a global effect. **Table 4-2** includes a summary of the estimated emissions of GHGs due to implementation of the Proposed Action under Alternative 1.

2071 The estimated social cost of carbon was compared against existing state, national, and global 2072 estimates for the same time period. This comparison helps stakeholders evaluate the relative 2073 contribution and costs associated with Alternative 1. Implementing Alternative 1 would generate 2074 1,315 tons of CO_2e , estimated to cost \$114,400. The total social cost of carbon for Alternative 1 is 2075 less than 0.0007% of the state, 0.000007% U.S., and 0.00000092% of global costs over the same 2076 time period. These estimates indicate that the social cost of carbon under Alternative 1 represents 2077 a negligible percentage across different areas over the same time period.

2078 4.6.1.2 CUMULATIVE IMPACTS

While GHG emissions would be produced during construction, it is anticipated that the Proposed Action under Alternative 1 would cause a negligible impact to GHG emissions over long-term and short-term periods. This is because the additional GHGs represents a negligible contribution to the overall GHG emissions generated regionally, statewide, nationally, and globally. In addition, mitigation efforts can be implemented to reduce nominal contributions to GHG.

2084 **4.6.1.3** CONCLUSION

Emissions from the Proposed Action under Alternative 1 within the primary and intersection ROIs would increase more than the No Action Alternative, but the emissions would be dispersed by normal weather patterns (wind, precipitation) and, in conjunction with mitigation efforts, would result in negligible impacts.

2089 **4.6.2** ALTERNATIVE **2**

2090 4.6.2.1 ANTICIPATED IMPACTS

Table 4-4 presents a summary of the estimated emissions of GHGs due to implementation of the
 Proposed Action under Alternative 2. Less than significant thresholds for GHG emissions and climate
 change have been estimated.

The estimated social cost of carbon was compared against existing state, national, and global estimates for the same time period. This comparison helps stakeholders evaluate the relative contribution and costs associated with Alternative 2. Implementing Alternative 2 would generate 1,324 tons of CO₂e, estimated to cost \$114,620. The total social cost of carbon for Alternative 2 is less than 0.0007% of the state, 0.000007% U.S., and 0.00000092% of global costs over the same time period. These estimates indicate that the social cost of carbon under Alternative 2 represents a negligible percentage across different areas over the same time period.

2101 **4.6.2.2 CUMULATIVE IMPACTS**

Emissions of VOCs would be generated during the asphalt curing process (specific to the intersection mitigation elements). There are approximately 12.45 acres of roadway for the improved intersections which would require new asphalt.

While GHG emissions would be produced during construction creating short term impacts these impacts under Alternative 2 are less than significant. It is anticipated that the Proposed Action under Alternative 2 would not cause a perceivable lasting impact to GHG emissions because the additional GHGs represents a negligible contribution to the overall GHG emissions generated regionally, statewide, nationally, and globally long-term. Mitigation efforts to reduce short-term GHGs can be implemented by maintaining equipment in good working order, limiting engine idling, and using emission control technology on construction equipment.

2112 **4.6.2.3** CONCLUSION

2113 Emissions from the Proposed Action under Alternative 2 within the primary and intersection ROIs

would increase in the short-term but not add to regional and global GHG emissions creating less

2115 than significant impacts.

2116 **4.6.3 NO ACTION ALTERNATIVE**

2117 **4.6.3.1 ANTICIPATED IMPACTS**

Under the No Action Alternative, the proposed intersection and other roadway improvements and sanitary sewerage extensions would not be constructed. Current stationary and mobile emissions sources generating GHGs, such as industry, residences, and personal and commercial vehicles traveling within the primary ROI and each intersection ROI, would continue to operate. Therefore, the No Action Alternative would have no impact on GHG emissions.

2123 **4.6.3.2 CUMULATIVE IMPACTS**

2124 Under the No Action Alternative, cumulative impacts to GHG emissions would continue to be 2125 generated from past, present, and proposed future projects.

2126 **4.6.3.3** CONCLUSION

- 2127 Under the No Action Alternative, the current GHG emission sources and volumes would remain
- unchanged.
2129 **4.7 WATER RESOURCES**

- 2130 For this analysis, BEP defined a significant adverse impact as one that would:
- Permanently alter, dam, divert, or redirect more than 200 linear feet of a jurisdictional stream segment; or alter hydrological connections to WUS. The 200 linear feet of potential disturbance is based on WUS mitigation thresholds for CWA Section 404/401 permitting (e.g., the Maryland State Programmatic General Permit [MDSPGP-5]) (USACE 2016).
- Adversely change the volume, rate, or quality of stormwater discharged from the Project Area, and/or increase erosion and sedimentation on and off site, such that BEP would degrade the quality of nearby surface waters, exceed applicable pollutant Total Maximum Daily Loads, and/or violate requirements of Section 438 of the EISA.
- Release concentrations of contaminants exceeding applicable Maximum Contaminant Levels to aquifers underlying the Project Area or inhibit groundwater recharge such that a net deficit in aquifer volume or a lowering of the local water table occurs.
- Not be consistent to the maximum extent practicable with one or more enforceable policies
 of the Maryland CZMA.
- 2144 **4.7.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)
- 2145 **4.7.1.1 ANTICIPATED IMPACTS**

2146 <u>Surface Waters and Water Quality</u>

As stated in Section 3.6.1, six streams were identified by USACE Baltimore District biologists within the proposed boundaries of traffic and utility improvement Project Area. Alternative 1

- would result in up to 0.2 acre of impact to streams WUS-T1, T2, T3, and T4 near the Edmonston Road traffic improvements footprint. These streams are tributaries to Indian Creek, which could
- 2150 Road traffic improvements footprint. These streams are tributaries to Indian Creek, which could 2151 potentially experience indirect impacts due to impacts to the tributaries. Alternative 1 could also
- 2151 potentially experience indirect impacts due to impacts to the tributaries. Alternative 1 could also 2152 impact up to 0.04 acre of streams WUS-T5 and T6 for installation of the new sanitary sewer line.
- 2152 Inspace up to 0.04 acre of streams w 0.5-15 and 10 for instantation of the new samtary sewer line. 2153 If impacts were to occur, they would be mitigated according to 404(b)(1) guidelines. Therefore,
- 2155 impacts to surface waters would be less than significant.
- 2155 *Floodplains*
- 2156 Alternative 1 would result in a minor expansion of the existing roadway along Edmonston Road
- and this would have less than significant impacts to the adjacent 100-year floodplain, as some of
- the existing floodplain area would be converted to pavement.
- 2159 <u>Wetlands</u>
- 2160 A wetland delineation was performed by USACE Baltimore District biologists in October 2023
- 2161 (BEP 2023b). The USACE team placed numbered flags along the limits of eleven wetlands and
- 2162 six WUS within the Project Area.
- 2163 The proposed traffic and utility improvements specified in Alternative 1 would likely impact
- 2164 Wetlands 1, 3, 4-b, and 8. Approximately 4% (0.37 acre) of Wetland 1, 17% (0.06 acre) of Wetland
- 2165 3, 24% (0.005 acre) of Wetland 4-b, and 42% (0.06 acre) of Wetland 8 would be impacted. In total,
- 2166 Alternative 1 would result in approximately 0.5 acre of wetlands within the Project Area, or 3%
- of all wetlands on site (approximately 13.7 acres total). All these impacts would be completely 2168 with started according to 404(h)(1) with 12 and 12 to 12 with 12 and 12 with 12 and 12 with 12 and 12 and 12 with 12 and 12 a
- 2168 mitigated according to 404(b)(1) guidelines and State 401 Water Quality Certification, as outlined

- 2169 in Section 1.4.6, resulting in no net loss of wetland quantity or quality. For that reason, the impact
- 2170 is considered less than significant.
- 2171 <u>Stormwater</u>

2172 Surface water runoff from the BARC campus feeds into surface water bodies via natural drainage 2173 patterns. Alternative 1 would have negligible impacts to stormwater.

- 2174 Both action alternatives would increase total impervious area in the ROI, thereby increasing the
- amount of stormwater runoff in the immediate vicinity of traffic and utilities mitigation projects.
- 2176 This could have a less than significant impact on some portions of the Project Area, particularly
- 2177 near the proposed CPF entry road and adjacent to Edmonston Road, due to underlying hydrologic
- 2178 conditions at these sites. Potential impacts would be minimized using green infrastructure and low-2179 impact development features established in Section 438 of the EISA, such as those planned for the
- adjacent BEP project, including "rainwater harvesting, pervious paving, and micro-bioretention"
- as a part of the proposed CPF plan to retain and reuse 100-percent of stormwater on-site (M-
- 2182 NCPPC 2023). Runoff resulting from the proposed CPF entry road, which would supplant part of
- 2183 one wetland and potentially impact another, would be included in onsite stormwater management.
- 2184 In addition, 0.69 acre of stormwater management improvements are proposed within the
- 2185 Baltimore-Washington Parkway LOD.
- 2186 Portions of Edmonston Road lie within the FEMA-designated 100-year flood zone, which could
- 2187 affect stormwater conditions in several adjacent traffic mitigation areas; see the *Floodplains*
- 2188 section above for more information. Elsewhere in the Project Area, effects on stormwater would
- 2189 be negligible. Aboveground utilities are not expected to impact stormwater conditions in the ROI.
- 2190 Any potential discharges within the Tier II watershed of Beaverdam Creek would undergo a Tier
- 2191 II Antidegradation Review by MDE if required. Satisfaction of this review is required to obtain
- 2192 applicable state permits. Refer to correspondence by MDE in Appendix B.
- 2193 <u>Coastal Zone</u>
- Maryland's coastal zone includes all of Prince George's County, including the Project Area. The
 project would have no impact on the Anacostia River or Chesapeake Bay. The federal consistency
 determination is in Appendix E.
- 2197 **4.7.1.2 CUMULATIVE IMPACTS**
- Incremental impacts to water resources from Alternative 1, when added to other past, present, and reasonably foreseeable future actions, have been considered. No significant effects were identified. The impacts that Alternative 1 would have on water resources would primarily be to wetlands. These impacts would be fully mitigated in accordance with MDE and USACE requirements and would result in no net loss of wetlands, including function. Therefore, the Proposed Action would have a less than significant contribution to cumulative impacts.
- 2204 **4.7.1.3** CONCLUSION
- 2205 Implementation of Alternative 1 would result in less than significant impacts to water resources.
- 2206 Construction of Alternative 1 with past, present, and reasonably foreseeable actions would result 2207 in less than significant cumulative impacts to water resources.

2208 **4.7.2** ALTERNATIVE **2**

2209 4.7.2.1 ANTICIPATED IMPACTS

2210 Alternative 2 has the same footprint as Alternative 1 for the traffic improvements. The only 2211 difference between the two is the sanitary sewer alignment. The sanitary sewer alignment under 2212 Alternative 2 would have the potential for additional wetland and stream impact beyond those already discussed for Alternative 1, specifically a larger footprint of impact to Wetland 1. 2213 Alternative 2 would impact approximately 11% (1.04 acres) of Wetland 1. In total, Alternative 2 2214 2215 would impact approximately 8% (1.2 acres) of wetlands in the Project Area. While Alternative 2 2216 would have a slightly larger impact to streams WUS-1 and WUS-2 (an additional 0.012-acre total) 2217 near Edmonston and Powder Mill Roads compared to Alternative 1, there would be no impact to WUS-5 and WUS-6. Therefore, impacts to water resources under Alternative 2 would still be less 2218 2219 than significant.

2220 **4.7.2.2** CUMULATIVE IMPACTS

Incremental impacts to water resources from Alternative 2, when added to other past, present, and reasonably foreseeable future actions, have been considered. No significant effects were identified.

The impacts that Alternative 2 would have to water resources would primarily be to wetlands.

These impacts would be fully mitigated in accordance with MDE and USACE requirements and

- would result in no net loss of wetlands, including function. There would be less than significant
- 2226 contribution to cumulative impacts.

2227 **4.7.2.3** CONCLUSION

2228 Implementation of Alternative 2 would result in short-term, less than significant impacts and long-

- term, negligible impacts to aesthetics and visual resources. Construction of Alternative 2 with past,
 present, and reasonably foreseeable actions would result in less than significant cumulative
- impacts to aesthetics and visual resources.

2232 4.7.3 NO ACTION ALTERNATIVE

- **2233 4.7.3.1 ANTICIPATED IMPACTS**
- The No Action Alternative would have no impacts on water resources beyond those considered in BEP's 2021 EIS.

2236 4.7.3.2 CUMULATIVE IMPACTS

- The No Action Alternative would have no cumulative impacts on water resources beyond those considered in BEP's 2021 EIS.
- 2239 **4.7.3.3** CONCLUSION
- The No Action Alternative would have no impact on water resources beyond those considered inBEP's 2021 EIS.

2242 **4.8 BIOLOGICAL RESOURCES**

- 2243 For this analysis, BEP defined a significant adverse impact as one that would:
- Substantially reduce regionally or locally important habitat.
- Substantially diminish a regionally or locally important plant or animal species.
- Adversely affect recovery of a federal or state listed species.

2247 **4.8.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

2248 **4.8.1.1 ANTICIPATED IMPACTS**

2249 Vegetation

2250 Under Alternative 1, it is likely there would be impacts to vegetation in forested habitat associated 2251 with the wetland system along Edmonston Road and within the sanitary sewer alignment north of Odell Road. Up to 1.7 acres of forested habitat could be impacted; however, impacts from the 2252 2253 project would mostly be limited to grasses, sedges, and other herbaceous species because the limit 2254 of disturbance contains only a small portion of forested habitat. Mitigation would be in compliance 2255 with the Maryland Forest Conservation Act, and a Forest Conservation Plan would be developed if required. Approximately 0.07 acre of trees on private property would be removed for the sanitary 2256 sewer alignment under Alternative 1. Within the Baltimore-Washington Parkway LOD, 2257 2258 approximately 0.3 acre of trees would be removed, or an estimated 22 trees. While this would 2259 result in a long-term adverse impact on vegetation within the Baltimore-Washington Parkway, the corridor is heavily forested and the removal of approximately 22 trees would not noticeably alter 2260 the vegetated setting or noticeable reduce available habitat for suburban species. BEP would 2261 2262 continue to work with NPS to incorporate native landscape design in and around stormwater facilities on NPS land. Approximately 0.52 acres of trees on BARC property would be removed 2263 2264 for the construction of the well access road. Up to 3.03 acres of trees along Edmonston Road may 2265 be removed to accommodate the roadway improvements within that LOD.

2266 <u>Wildlife</u>

Wildlife species in the Project Areas are common to semi-rural/suburban areas in central
Maryland. There would not be a substantial loss of habitat, therefore the impacts to wildlife would
be negligible.

2270 *Federal- and State-Listed Species*

In a letter dated January 23, 2024, the USFWS provided coordination regarding federally listed species (**Appendix B**). It stated:

2273 "This proposed project is within the range of the northern long-eared bat, a federally listed 2274 endangered species. This project as proposed is 'not likely to adversely affect' the northern long-2275 eared bat because tree removal is minimal (3.92 acres of trees will be removed) and no maternity 2276 roosts or hibernacula are present within the project area.

There is a proposed rule to list the tricolored bat (*Perimyotis subflavus*) as an endangered species.
A final listing determination will be made in fiscal year 2024. If forest clearing has not occurred
prior to the final listing decision for this species, re-initiation of consultation with the Service
should occur.

2281 The monarch butterfly (Danaus plexippus) is a candidate species and not yet listed or proposed for 2282 listing. There are no Section 7 requirements for candidate species. Except for occasional transient individuals, no other federally proposed or listed threatened or endangered species are known to 2283 exist within the project area. Should project plans change, or if additional information on the 2284 2285 distribution of listed or proposed species becomes available, this determination may be reconsidered." As such, there would be no anticipated impact to federally listed species. Any tree 2286 clearing would occur outside the active season for both the NLEB and tricolored bat (refer to 2287 2288 measures in Appendix C).

As stated in Section 3.1.14, MDNR has concurred there are no state listed species in the Project

Area. Impacts to FIDS habitat would be in compliance with the Maryland Forest Conservation Act as described under the analysis for impacts to vegetation.

2292 <u>Bald Eagles</u>

- 2293 No bald eagle nests exist within the traffic and utility mitigation boundaries. Alternative 1 would
- have no impact on bald eagles.
- 2295 <u>Special Status Species Migratory Birds</u>

As stated in Section 0, migratory birds use BARC for seasonal feeding grounds, breeding grounds, or for temporary stop-over during migration. It is possible that there could be short-term less than significant impacts to Special Status Species. This would end when construction is over. Alternative 1 would include removal of canopy trees. These trees would be mitigated in a sufficient manner to result in a less than significant impact to Special Status Species.

2301 4.8.1.2 CUMULATIVE IMPACTS

2302 Incremental impacts to biological resources from Alternative 1, when added to other past, present,

- and reasonably foreseeable future actions, have been considered. No significant effects were identified. The impacts that Alternative 1 would have on biological resources would primarily be
- identified. The impacts that Alternative 1 would have on biological resources would primarily be to vegetation, forests, and Special Status Species. These would be less than significant and fully
- 2306 mitigated. Impacts to forest stands would be mitigated in coordination with the Maryland Forest
- 2307 Conservation Act, and Special Status Species would be mitigated in accordance with Section 7 of
- ESA. There would be a less than significant contribution to cumulative impacts.
- 2309 **4.8.1.3** CONCLUSION
- 2310 The impacts from Alternative 1 to biological resources would be less than significant.

2311 **4.8.2** ALTERNATIVE 2

2312 **4.8.2.1** ANTICIPATED IMPACTS

2313 Alternative 2 has the same footprint as Alternative 1 for the traffic improvements. The only 2314 difference between the two is the sanitary sewer alignment. The sewer alignment under Alternative 2 would have the potential for additional impacts to vegetation and Special Status Species beyond 2315 2316 those already discussed for Alternative 1. Impacts to forested habitat would be less than under 2317 Alternative 1, at approximately 1.0 acre. These impacts would be less than significant but would 2318 require additional mitigation actions to be considered overall negligible. Additionally, there would 2319 be no removal of trees on private property. As under Alternative 1, BEP is also working with NPS 2320 to incorporate native landscape design in and around stormwater facilities on NPS land.

2321 4.8.2.2 CUMULATIVE IMPACTS

Incremental impacts to biological resources from Alternative 2, when added to other past, present, and reasonably foreseeable future actions, have been considered. No significant effects were identified. The impacts that Alternative 2 would have on biological resources would primarily be to vegetation, forests, and Special Status Species. These would be less than significant and fully mitigated. Impacts to forest stands would be mitigated in coordination with the Maryland Forest Conservation Act, and Special Status Species would be mitigated in accordance with Section 7 of ESA. There would be a less than significant contribution to cumulative impacts.

2329 **4.8.2.3** CONCLUSION

2330 The impacts from Alternative 2 to biological resources would be less than significant.

4.8.3 NO ACTION ALTERNATIVE

2332 4.8.3.1 ANTICIPATED IMPACTS

The No Action Alternative would have no impacts on biological resources beyond those considered in BEP's 2021 EIS.

2335 4.8.3.2 CUMULATIVE IMPACTS

The No Action Alternative would have no cumulative impacts on biological resources beyond those considered in BEP's 2021 EIS.

2338 **4.8.3.3** CONCLUSION

The No Action Alternative would have no impacts on biological resources beyond those considered in BEP's 2021 EIS.

2341 4.9 CULTURAL RESOURCES

- 2342 For this analysis, BEP defined significant adverse impact on cultural resources as one that would:
- result in negative impacts to cultural resources that are listed or are eligible for listing on
 the National Register of Historic Places (NRHP);
- cease all activities related to historic and cultural resources interpretive programs that are
 sponsored by state and Tribal Historic Preservation Officers, historic preservation groups
 or re-enactment groups; and
- permanently alter visual character or "sense of place" in the ROI (please see aesthetics and visual resources section).

2350 **4.9.1** ALTERNATIVE 1 (PREFERRED ALTERNATIVE)

2351 4.9.1.1 ANTICIPATED IMPACTS

2352 <u>Archaeological Resources</u>

2353 Impacts on the archaeological resources include removal of soils and installation of utilities, 2354 constructing new roads to the new CPF, expanding Edmonston Road, and adding turning lanes at 2355 the Edmonston Road – Beaverdam Road Intersection. There is one archaeological resource in the 2356 Baltimore-Washington Parkway Project Area which would be avoided during construction efforts 2357 and therefore no impacts within that Project Area are expected. Based on the outcomes of the 2358 Phase I Traffic Mitigation and the Phase I Utility Mitigation archaeological surveys, the Proposed 2359 Action would not have significant impacts on archaeological resources. The Phase I Traffic Mitigation and the Phase I Utility Mitigation archaeological surveys did not find any 2360 archaeological features that would warrant listing on the NRHP, and no further investigations were 2361 recommended (Knight-Iske 2022, Knight-Iske 2023). The Maryland State Historic Preservation 2362 2363 Officer concurred with this finding via correspondence dated 23 August 2022 and 22 December 2023. Furthermore, BEP has determined that the Proposed Action would have no adverse effect 2364 2365 on historic properties, and USDA and NPS have concurred with this determination as well (see 2366 Appendix B).

2367

2368 <u>Architectural Resources</u>

2369 Under the Proposed Action, there would be short-term, less than significant adverse impacts to 2370 architectural resources. While the Project Areas lie within the BARC Historic District and/or the Baltimore-Washington Parkway Historic District, the roadway and utility improvements are in line 2371 with existing viewsheds of these districts. Impacts to the Baltimore-Washington Parkway 2372 2373 northbound ramps and southbound ramps at Powder Mill Road may include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, and addition of traffic control 2374 devices. While there would be minor impacts to the viewshed of these districts during construction 2375 2376 due to the presence of construction equipment and lay down areas, these visual impacts would cease upon completion of construction. Similarly, the improvements proposed in this location are 2377 consistent with the existing setting and feeling of the Parkway. While there would be minimal 2378 2379 vegetation removal of up to 0.3 acres or approximately 22 trees, the Parkway would retain its 2380 vegetated setting. There is one bridge over Powder Mill Road that would not be affected during construction. The alignment of the road to the bridge and on the bridge would stay the same. The 2381 2382 improvements would not impact the Historic District's listing on the NRHP. As a result, BEP has 2383 determined that the Proposed Action would have no adverse effect on historic properties, and 2384 USDA and NPS have concurred with this determination (see Appendix B).

2385 <u>Cultural Landscapes</u>

2386 Under the Proposed Action, there would be short-term, adverse impacts to the cultural landscapes. The Project Area mostly lies on BARC and a smaller portion of the Project Area includes a small 2387 portion of the Baltimore-Washington Parkway. Short-term impacts would include restricted access 2388 2389 to the Project Area, minor alterations to the landscape as described above, and increased noise 2390 during the Proposed Action, however these impacts would be less than significant. BEP has 2391 determined that the Proposed Action would have no adverse effect on historic properties, including 2392 cultural landscapes, and USDA and NPS have concurred with this determination as well (see 2393 Appendix B).

2394 4.9.1.2 CUMULATIVE IMPACTS

With the completion of archaeological surveys within the Project Area, Alternative 1 would have negligible to minor impacts to cultural resources. Past, present, and foreseeable future projects have resulted in minor cumulative impacts on cultural resources from earth disturbance activities, changes to the viewshed, removal of structures, and changes to the landscape within the Project Area. Alternative 1 would contribute to a small increment of the cumulative impacts and would be less than significant in the context of the existing resources present within the area.

2401 **4.9.1.3** CONCLUSION

2402 The Proposed Action includes installation of new utility lines; removal of soils, trees, and structures; lane widening, new turn lanes; signage; and traffic control devices. When considered 2403 2404 in conjunction with other past, present, and reasonably foreseeable future actions, the Proposed 2405 Action would have less-than-significant cumulative impacts on cultural resources. As there are no 2406 significant archaeological resources, architectural resources, or cultural landscapes within the 2407 Project Areas, this project would not be expected to have any impacts to cultural resources; 2408 however, other actions within the ROI may still contribute to cumulative, less than significant, 2409 adverse impacts to cultural resources. As a result, the Baltimore-Washington Parkway Historic 2410 District and the BARC Historic District would retain integrity in terms of location, setting, and

- 2411 materials, and association due to the small areas being impacted by the Proposed Action. The
- 2412 Baltimore-Washington Parkway Historic District and the BARC Historic District would maintain
- their eligibility for listing on the National Register under the Proposed Action.
- 2414 In the event of an unanticipated discovery of an archaeological resource, including paleontological
- resources (e.g., dinosaur bones), during construction, ground-disturbing activities in the vicinity of the resource would be suspended, and a cultural resources specialist meeting the Secretary of
- the Interior's *Professional Qualification Standards* (36 CFR 61) would determine if an
- 2418 Unanticipated Discovery Plan should be developed and implemented. BEP would also consult
- 2419 with the MHT and other interested parties, including federally recognized Tribes, regarding the
- 2420 inadvertently discovered resource(s) and comply with Section 106 of the National Historic
- 2421 Preservation Act (NHPA) and other applicable regulations.
- 2422 **4.9.2** ALTERNATIVE **2**
- 2423 **4.9.2.1 ANTICIPATED IMPACTS**
- Anticipated impacts to archaeological resources, architectural resources, and cultural landscape would be the same for Alternative 2 as for Alternative 1, as described in Section 4.1.24.1.
- 2426 **4.9.2.2 CUMULATIVE IMPACTS**
- Cumulative impacts to archaeological resources, architectural resources, and cultural landscapewould be the same for Alternative 2 as for Alternative 1, as described in Section 4.1.24.2.
- 2429 **4.9.2.3** CONCLUSION
- Impacts to archaeological resources, architectural resources, and cultural landscape would be thesame for Alternative 2 as for Alterative 1.

2432 4.9.2.4 NO ACTION ALTERNATIVE ANTICIPATED IMPACTS

Under the No Action Alternative BEP would not perform any improvements to traffic or utilities;
therefore, there would be no impacts to archaeological resources, architectural resources, or
cultural landscapes.

2436 **4.9.2.5 CUMULATIVE IMPACTS**

2437 Under the No Action Alternative, there would be no cumulative impacts to archaeological2438 resources, architectural resources, or cultural landscapes.

2439 **4.9.2.6** CONCLUSION

Under the No Action Alternative BEP would not perform any mitigation efforts to traffic or
utilities; therefore, there would be no impacts to archaeological resources, architectural resources,
or cultural landscapes.

2443 **4.10 AESTHETICS AND VISUAL RESOURCES**

- For this analysis, BEP defined a significant adverse impact on aesthetics and visual resources as one that would:
- introduce discordant elements or remove important (i.e., visually appealing) elements in a previously cohesive and valued landscape,
- Obstruct historically or aesthetically valued vistas, or
- permanently alter visual character or "sense of place" in the ROI.

2450 **4.10.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

4.10.1.1 ANTICIPATED IMPACTS

2452 During construction of Alternative 1 there would be short-term, less than significant adverse impacts to aesthetics and visual resources due to the presence of construction equipment at work 2453 2454 sites and the construction laydown area. As stated in Section 4.1.24, construction would also result 2455 in short-term, adverse impacts to aesthetics and visual resources of cultural landscapes at BARC and Baltimore-Washington Parkway due to minor alterations to the landscape, including up to 0.3 2456 2457 acres of vegetation removal. However, once the construction of traffic and utility improvements is 2458 complete, impacts to aesthetics and visual resources should cease. Additionally, as construction 2459 activities would occur primarily during normal business hours during the day, lighting levels in 2460 the ROI would not change from the status quo.

2461 The traffic improvements included as part of Alternative 1 would be similar in aesthetics to the 2462 existing roadways within the ROI. As these would be additions to existing roads, the viewsheds, even along the designated scenic and historic roads and within the BARC Historic District, would 2463 be in line with existing conditions. Within the Baltimore-Washington Parkway LOD, 2464 2465 approximately 0.3 acre of trees would be removed, slightly altering the existing vegetation conditions, but not changing the overall vegetated feeling at the intersection with Powder Mill 2466 Road. The PEPCO electric lines and Verizon service lines would be installed within an existing 2467 2468 powerline easement; additional poles installed along Odell Road would be for the purpose of 2469 supporting existing lines and would have minimal impacts to views. New sanitary sewer and gas 2470 lines would be located underground and would have no effect on aesthetics or viewsheds post-2471 construction. As such, there would be negligible long-term impacts to aesthetics and visual 2472 resources.

2473 **4.10.1.2** CUMULATIVE IMPACTS

2474 Construction activities from Alternative 1 along with ongoing and future developments would 2475 cause less than significant adverse cumulative impacts on aesthetics and visual resources in the 2476 ROI due to the presence of active construction sites. However, these impacts would be temporary 2477 and would cease once construction has been completed. Once completed, the Proposed Action, 2478 along with other developments in the vicinity, would be visible to residences and businesses along 2479 roadways in the ROI and result in a permanent change to the existing viewshed. Cumulative impacts to aesthetics and visual resources, however, would be less than significant, as ongoing, 2480 2481 and reasonably foreseeable future developments would be consistent with the existing rural-2482 suburban visual landscape.

2483 **4.10.1.3** CONCLUSION

Implementation of Alternative 1 would result in short-term, less than significant impacts and longterm, negligible impacts to aesthetics and visual resources. Construction of Alternative 1 with past, present, and reasonably foreseeable actions would result in less than significant cumulative impacts to aesthetics and visual resources.

2488 **4.10.2 ALTERNATIVE 2**

2489 **4.10.2.1 ANTICIPATED IMPACTS**

2490 Impacts to aesthetics and visual resources would be the same as under Alternative 1, as described

2491 in Section 4.1.26.1.

2492 **4.10.2.2** CUMULATIVE IMPACTS

2493 Cumulative impacts to aesthetics and visual resources would be the same as under Alternative 1, 2494 as described in Section 4.1.26.2.

2495 **4.10.2.3** CONCLUSION

Implementation of Alternative 2 would result in short-term, less than significant impacts and longterm, negligible impacts to aesthetics and visual resources. Construction of Alternative 2 with past,
present, and reasonably foreseeable actions would result in less than significant cumulative
impacts to aesthetics and visual resources.

4.10.3 NO ACTION ALTERNATIVE

4.10.3.1 ANTICIPATED IMPACTS

Under the No Action Alternative BEP would not perform any improvements to traffic or utilities;therefore, there would be no impacts to aesthetics and visual resources.

4.10.3.2 CUMULATIVE IMPACTS

Under the No Action Alternative, there would be no cumulative impacts to aesthetics or visualresources.

2507 **4.10.3.3** CONCLUSION

Under the No Action Alternative, there would be no long-term or short-term impacts to aestheticsor visual resources. Consequently, there would be no cumulative impacts.

2510 **4.11 SOCIOECONOMICS**

For this analysis, BEP assumed that a significant impact would occur if current demographic or economic conditions were changed in a way that would be notable and harmful for surrounding communities and residents.

2514 4.11.1 ALTERNATIVE 1 (PREFERRED ALTERNATIVE)

4.11.1.1 ANTICIPATED IMPACTS

2516 Alternative 1 would result in short-term beneficial socioeconomic impacts. Construction of the 2517 roadway improvements would require purchasing materials and supplies from local or regional 2518 vendors. Should the construction contractor employ workers from outside the region, workers may also spend money locally for food and lodging. This spending would be considered beneficial on 2519 the local economy. In the context of the greater DC-Baltimore region, however, this beneficial 2520 2521 impact would be small and potentially immeasurable. Local employment and additional spending associated with construction would be temporary and would cease upon completion of 2522 improvements. Therefore, beneficial impacts to socioeconomics would be short-term. There would 2523 2524 be no long-term impacts to socioeconomics, as the temporary increase in construction-related spending and employment would not alter socioeconomic conditions or labor force characteristics 2525 2526 of the ROI. There would be no impacts on overall population, housing, household income, or community services. 2527

2528 4.11.1.2 CUMULATIVE IMPACTS

A temporary increase in local spending associated with construction and employment to support construction of Alternative 1 and ongoing and future developments may result in beneficial

- 2531 cumulative impacts on socioeconomic conditions. Construction workforces would generate sales,
- taxes, and revenue locally, particularly for construction of larger projects such as the High-Speed
- 2533 Superconducting Magnetic Levitation System, the new FBI HQ in Greenbelt, and updates to the
- 2534 James J. Rowley Training Center and FDA Muikirk Road Campus. However, the Proposed
- Action's overall contribution to local spending would represent a very small percentage of the total
- spending in the ROI and would be temporary and last only throughout the duration of construction.
 Therefore, the Proposed Action's contribution to cumulative benefits within the ROI would be
- short-term and would not substantially alter socioeconomic conditions or labor force
- characteristics in the ROI.

2540 **4.11.1.3** CONCLUSION

- 2541 Implementation of Alternative 1 would result in short-term, beneficial impacts to socioeconomics
- 2542 during construction. A temporary increase in local construction-related spending and employment
- 2543 may result during construction of Alternative 1 and ongoing and reasonably foreseeable future
- actions, which would have a short-term, cumulative benefit to socioeconomics but would not
- substantially alter economic conditions in the ROI.

4.11.2 ALTERNATIVE 2

2547 **4.11.2.1 ANTICIPATED IMPACTS**

- Impacts to socioeconomics would be the same as under Alternative 1, as described in Section4.1.24.1.
- **2550 4.11.2.2 CUMULATIVE IMPACTS**
- Cumulative impacts to socioeconomics would be the same as under Alternative 1, as described inSection 4.1.24.2.

2553 **4.11.2.3** CONCLUSION

Implementation of Alternative 2 would result in short-term, beneficial impacts to socioeconomics during construction. A temporary increase in local construction-related spending and employment may result during construction of Alternative 2 and ongoing and reasonably foreseeable future actions, which would have a short-term, cumulative benefit to socioeconomics but would not substantially alter economic conditions in the ROI.

4.11.3 NO ACTION ALTERNATIVE

2560 4.11.3.1 ANTICIPATED IMPACTS

Under the No Action Alternative BEP would not perform any improvements to traffic or utilities;therefore, there would be no impacts to socioeconomics.

4.11.3.2 CUMULATIVE IMPACTS

2564 Under the No Action Alternative, there would be no cumulative impacts to socioeconomic 2565 resources.

2566 **4.11.3.3 CONCLUSION**

Under the No Action Alternative, there would be no long-term or short-term impacts tosocioeconomics. Consequently, there would be no cumulative impacts.

2569 **4.12 ENVIRONMENTAL JUSTICE**

EO 12898 and EO 14096 stipulate that each agency should carry out environmental reviews under NEPA "consistent with the statute and its implementing regulations and through the exercise of the agency's expertise and technical judgment." Mitigation measures outlined or analyzed in an environmental assessment, environmental impact statement, or record of decision, whenever feasible, should then address "significant and adverse environmental impacts of the proposed Federal action" on communities with EJ concerns.

As discussed in Section 1.1.11, EO 14096 calls on Federal agencies to remove barriers to the meaningful involvement of the public in decision-making and EO 14091 encourages Federal agencies to conduct proactive engagement with members of underserved communities to inform the design of regulatory agendas and plans.

The following sections describe the public engagement efforts and the minimization and mitigation efforts that would help to ensure that there are no disproportionate impacts on the communities with EJ concerns in the EJ ROI.

2583 <u>Public Engagement</u>

2584 During the scoping process for the EIS, BEP received comments from community members that 2585 identified concerns over impacts to residential communities near the activities related to the 2586 proposed CPF. The substantive comments were addressed in BEP's 2021 EIS. Please refer to the BEP 2021 EIS and BEP's Public Scoping Report for further details on all comments received 2587 2588 during the scoping period. See Appendix L for agencies and individuals contacted since the publication of BEP's 2021 EIS, including the Vansville Heights Citizens' Association in May 2022 2589 2590 and the North Creek Homeowners' Association in July 2023. Both Associations represent 2591 communities in the EJ ROI with EJ concerns.

2592 Many of the comments during the scoping period for the EIS and after indicate the local 2593 community's concerns about the impacts on traffic congestion and public safety on the surrounding 2594 roads. These impacts are addressed by this Proposed Action to ensure the traffic LOS at each 2595 identified failing intersection meets the applicable thresholds with the increase in traffic 2596 anticipated from the construction and operation of the replacement CPF.

2597 In compliance with EO 14096 and in recognition of the value of community input, BEP held a community meeting on January 17, 2024. Flyers announcing the meeting were printed in both 2598 2599 English and Spanish, as Spanish is the primary language spoken in the LES households in the EJ ROI (Table 3-19). Flyers were mailed to residents who directly border the Project Area along 2600 2601 Edmonston Road, Odell Road, and in Rosedale Park (along Beaverdam Road). Flyers were also 2602 mailed to the Homeowner Associations (HOAs) that border the Project Area (Vansville Heights 2603 Citizens' Association, North Creek Homeowners' Association, and Indian Creek Village). Flyers 2604 were also posted and/or e-mailed to the Vansville Community Center, Beltsville Library, Beltsville 2605 Academy, Vansville Elementary School, a local Hispanic deli, and places of worship within the 2606 EJ ROI. A flyer was e-mailed to Councilman Dernoga who posted it to social media. See 2607 Appendix M for copies of the flyers.

At the open house, BEP displayed five posters in English and Spanish outlining the components of the Proposed Action with assigned staff to respond to and record any comments or questions raised by the attendees. The poster topics were: 1) Project overview; 2) Proposed roadway

- improvements; 3) Proposed utilities mitigation; 4) NEPA process and schedule; 5) Environmental
 resource areas reviewed for NEPA.
- 2613 See Appendix M for copies of the posters, a listing of the individuals and organizations that were

2614 invited to the meeting by phone or flyer, and a matrix of comments received from the attendees

along with BEP's responses. USACE met with SHA on February 6, 2024, to discuss the Proposed

- 2616 Action and the issues raised at the community meeting. A determination was made to include a
- southbound left turn lane along MD 201/Edmonston Rd. and a two-lane approach along Beaver
- 2618 Dam Rd. (striped for one left turn lane and one right turn lane within the LOD) in the Proposed
- 2619 Action. See Section 5.1.1 for details.
- 2620 *Identifying Disproportionate Impacts*

EO 14096 instructs agencies to analyze and minimize or mitigate disproportionate and adverse human health and environmental effects on communities with EJ concerns. For this EA, BEP

analyzed the potential for the communities with EJ concerns to be disproportionately impacted by

the Proposed Action such as through increased pollution, reduced public safety, increased traffic

2625 congestion or noise, adverse human health effects, or by potential cumulative impacts.

2626 **4.12.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

2627 4.12.1.1 ANTICIPATED IMPACTS

The impacts from the Proposed Action discussed in this Supplemental EA for each individual resource would not be disproportionate to the communities with EJ concerns. The mitigation efforts for any potential impacts to the resources analyzed in this EA would ensure that the Proposed Action does not create disproportionate environmental burdens or risks to vulnerable, underserved, or overburdened residents living in the EJ ROI.

- 2633 Minimization and mitigation efforts that would help to ensure the Proposed Action does not 2634 disproportionately impact the communities with EJ concerns in the EJ ROI include:
- SHA-approved measures, such as signage and signaling, would be implemented to alert passersby and minimize safety risks for passing pedestrians, cyclists, and motorists to the greatest extent possible (see Section 0).
- Noise suppression plans would be in compliance with the Noise Control Act of 1972 and Prince George's County Noise Ordinance and the removal of rumble strips on Powder Mill Road would reduce noise levels and noise complaints from BARC employees and the community (see Section 0).
- Construction BMPs would limit fugitive dust and construction equipment emissions.
 Construction vehicles would only be mobilized at the start and end of construction at a given site and worker carpooling would be encouraged. De minimis thresholds for emissions would not be exceeded in Alternative 1 nor 2 (see Section 0).
- Construction BMPs would protect children from potential contact with environmental contaminants that could be present in excavated soil or stormwater runoff (see Section 0).
- One-way, alternating traffic would be maintained whenever practicable. If through-traffic on Powder Mill Road, Odell Road, or Edmonston Road must be halted at any point, adequate and well-marked detours would be established to fully accommodate local traffic. All roadwork would be conducted in close consultation with local planning authorities (see Section 0).

- Construction would not permanently decrease the LOS at the selected or surrounding intersections nor prevent access to pedestrian and bicycle networks, public transportation routes, or community parking areas. Construction workers and vehicles would not travel during the peak hours of the local ROI (i.e., 7:45 to 8:45 a.m. and 5:00 to 6:00 p.m.) (See section 0).
- Construction vehicles would follow existing truck restrictions on regional and local roadways (see Section 0).
- Temporary disruptions to utilities would be coordinated with WSSC, Washington Gas,
 PEPCO, Verizon, and USDA Utility Management to minimize the impact of disruptions
 (see Section 0).
- Any contaminated excavated soils and hazardous materials would be disposed of in compliance with the MDE construction general permit (see Section 0).

The communities with EJ concerns would benefit from the improvements to existing traffic and safety conditions with the implementation of Alternative 1, including the improvements to the bicycle level of traffic stress to the maximum extent practicable following the MD201/Edmonston Rd. roadway improvements.

2669 4.12.1.2 CUMULATIVE IMPACTS

The cumulative impact of the Proposed Action and the ongoing and reasonably foreseeable future developments would be negligible as the improvement of the seven intersections would not occur on the same streets at the same time as any other projects. The planned mitigations for any impacts of the construction on the resources analyzed in this EA would also mitigate any disproportionate cumulative impacts.

2675 **4.12.1.3 CONCLUSION**

2676 The communities with EJ concerns would benefit from the improvements to existing traffic and 2677 safety conditions with the implementation of Alternative 1 and would not experience 2678 disproportionate environmental impacts from the Proposed Action.

2679 **4.12.2 ALTERNATIVE 2**

2680 **4.12.2.1 ANTICIPATED IMPACTS**

As under Alternative 1, described in Section 4.1.32.1, the communities with EJ concerns would benefit from the improvements to existing traffic and safety conditions with the implementation of Alternative 2 and would not experience disproportionate environmental impacts from the Proposed Action.

2685 4.12.2.2 CUMULATIVE IMPACTS

The cumulative impact of Alternative 2 and the ongoing and reasonably foreseeable future developments would be the same as those from Alternative 1, as described in Section 4.1.32.2.

2688 **4.12.2.3** CONCLUSION

2689 The communities with EJ concerns would benefit from the improvements to existing traffic and 2690 safety conditions with the implementation of Alternative 2 and would not experience 2691 disproportionate environmental impacts from the Proposed Action.

4.12.3 NO ACTION ALTERNATIVE

2693 4.12.3.1 ANTICIPATED IMPACTS

The No Action Alternative is the environmentally preferable alternative, as there would be no impacts to historical, cultural, or natural resources. However, the No Action Alternative would not improve the existing failing seven intersections identified in BEP's 2021 EIS, which could contribute to increased traffic volume and congestion, as well as safety concerns, since several unsigned intersections are considered unsafe.

2699 **4.12.3.2** CUMULATIVE IMPACTS

The cumulative impacts of the No Action Alternative and the ongoing and reasonably foreseeable future developments could cause disproportionate impacts on the surrounding communities because the failing LOS at the intersections would not be corrected, including construction and operation of the new CPF.

2704 **4.12.3.3** CONCLUSION

The No Action Alternative would potentially cause disproportionate adverse impacts to the communities with EJ concerns as the public comments on the EIS indicated the residents already experience traffic congestion and safety concerns on these and connecting roads and the failing LOS at the intersections could result in disproportionate impacts during the ongoing and reasonably foreseeable future projects, including the construction and operation of the new CPF.

2710 **4.13 PROTECTION OF CHILDREN**

2711 For this analysis, BEP defined a significant adverse impact as one that would directly or indirectly

- 2712 result in harm to children within the ROI due to an accident or intentionally destructive act during
- 2713 construction or operation of the Proposed Action.

2714 **4.13.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

4.13.1.1 ANTICIPATED IMPACTS

2716 Impacts to the protection of children are not expected under Alternative 1 because children are not expected to enter the ROI. Children may travel through construction zones adjacent to the Project 2717 2718 Area as passengers in vehicles, in which case the existing safety procedures would protect children along with the public. Engineering controls that reduce air pollutant exposure for onsite workers 2719 2720 would also protect children. Construction BMPs would protect children from potential contact 2721 with environmental contaminants that could be present in excavated soil or stormwater runoff. 2722 Following construction, improvements to traffic flow could have a minor beneficial impact on 2723 children in the area.

4.13.1.2 CUMULATIVE IMPACTS

When considered alongside the effects of other current and future local developments, the traffic and utilities mitigation projects could have a beneficial cumulative impact on the protection of children both inside and outside of the ROI by improving existing unsafe conditions on roadways.

2728 **4.13.1.3 CONCLUSION**

The protection of children is of national importance, and potential effects to childhood health and safety were carefully assessed during the process of planning traffic and utilities mitigation projects for the proposed CPF. Although childhood lead poisoning is a particular concern in the region, the proposed mitigation projects would not negatively impact this progress. Following construction, minor beneficial impacts to the protection of children could occur under Alternative

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2735 **4.13.2 ALTERNATIVE 2**

4.13.2.1 ANTICIPATED IMPACTS

Under Alternative 2, increased excavation area would be required to install the Edmonston Road
sanitary sewer option. Increased construction zones would not negatively impact the protection of
children due to existing safety measures during construction. Impacts to the protection of children

under Alternative 2 would be like those under the Preferred Alternative; the protection of children

2741 could experience minor beneficial impacts under either action alternative.

2742 **4.13.2.2** CUMULATIVE IMPACTS

Cumulative impacts under Alternative 2 would be like those under Alternative 1, as described inSection 4.1.35.2.

2745 **4.13.2.3** CONCLUSION

Alternative 2 could have a minor beneficial impact on the protection of children in the ROI, as described for Alternative 1 in Section 4.1.35.2.

4.13.3 NO ACTION ALTERNATIVE

2749 **4.13.3.1 ANTICIPATED IMPACTS**

Impacts to the protection of children under the No Action Alternative would be negligible. Several intersections slated for improvement under the action alternatives would achieve failing service levels with no mitigation, which could have a negative impact on the health and safety of local children who are passengers in vehicles at these intersections. Therefore, minor negative impacts to the protection of children could occur under the No Action Alternative.

2755 **4.13.3.2** CUMULATIVE IMPACTS

Within the ROI, the protection of children during transit could potentially be affected by the No Action Alternative when combined with impacts from other current and future projects expected to occur in the area, as additional traffic brought by the new developments could exacerbate existing unsafe conditions on roadways. Therefore, failure to improve the intersections identified in the TIS could result in less than significant cumulative impacts to the protection of children.

2761 **4.13.3.3 CONCLUSION**

2762 Within the ROI for protection of children, negligible, negative impacts to the protection of children

- 2763 could occur when children pass through unimproved intersections as passengers in vehicles. When
- 2764 considered with other current and future projects, the No Action Alternative could result in less
- than significant, adverse cumulative impacts.

2766 4.14 TRANSPORTATION

2767 This section identifies the potential effects on transportation within the local Project Area that

- could occur under the Proposed Action and the No Action Alternative. Measures to reduce
- 2769 potential adverse impacts on transportation are also identified. The following assumptions were 2770 included in this effects analysis:

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- Fifteen to 25 workers may be present during construction of an intersection improvement.
 The number of workers required would depend on the specific construction activity and safety requirements.
- Construction equipment would be staged at the intersection or roadway area undergoing improvements; off-road heavy construction equipment, such as graders, loaders, and excavators, would be mobilized to and from the work site only at the start and finish of construction at each area.
- Roadway improvement permits would be obtained from Maryland Department of Transportation, MD SHA, Prince George's County DPW&T, and a cooperative agreement with NPS for intersections associated with the Baltimore-Washington Parkway. BEP would implement permit requirements and agreements.
- All work on MD SHA roadways would conform to the latest approved SHA's
 Specifications entitled "Standard Specifications for Construction and Materials," the
 Administration's Book of Standards for Highways and Incidental Structures, and the latest
 Manual on Uniform Traffic Control Devices (MUTCD).
- All work on federal and NPS roadways would conform to the latest approved Standard
 Specifications for Construction of Roads and Bridges on Federal Highway Projects 2014,
 FP-14, and other applicable federal standards.
 - Permits would not allow construction activities to impede existing traffic flow during the construction period. Alternate lanes would be established, where necessary, to ensure safe and regular traffic flow around the construction zone.
- All federal, state, and county construction safety measures would be implemented, monitored, and maintained by the construction contractor at each construction work area.
- No interruptions to existing public transit routes.
 - No substantive change in regional traffic levels and transportation operations.
- Baseline and projected traffic volumes associated with both the proposed BEP CPF and No Action modeled in the Final EIS remain accurate and complete.
- Construction workers would commute to the various intersection upgrade construction sites during regular daytime hours Monday through Friday. Construction workers would commute from local home locations or hotels (i.e., generally not more than 40 miles away from each intersection).
- Construction activities would take between 1 and 10 months, and construction would not necessarily occur at the same time at each intersection but would start between late 2027 and early 2028. Although BEP would wait until substantial completion of the new CPF to begin roadway improvements, the roadway improvements would be planned to be completed prior to the new CPF becoming fully operational in 2031 or 2032.
- Construction vehicles and vehicles delivering materials would travel on main roads, avoiding travel directly through residential neighborhoods.
- Hauling routes to construction site would be designated and signage would be posted to direct construction traffic to and away from active construction sites.
- 2811 BEP assumed that a significant impact would occur if the Proposed Action:
- Cause a noticeable, negative change in the regional ROI's traffic levels and transportation operations.
- Result in LOS degradation for signalized or unsignalized intersections such that they would be failing.

Result in failing queue lengths that increase by 150 feet or more compared to the No
 Action Alternative in intersections that also have a failing LOS.

- Result in long-term closure or loss of sidewalks, trails, lanes, or other facilities used by pedestrians or cyclists to access frequently visited locations.
- Interrupt an existing public transit route over the long-term without a convenient replacement.
- Cause an abrupt, unplanned change in existing transit ridership levels that would require the transit authority to alter existing operations.

2824 **4.14.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

2825 4.14.1.1 ANTICIPATED IMPACTS

2826 Construction of the intersection improvements would have a direct, short-term, minor adverse 2827 impact on transportation conditions in the Project Area. The impact would be caused by the 2828 installation and presence of traffic safety measures and construction activities at each intersection. 2829 Although these measures would require vehicles to reduce travel speeds near and while passing 2830 the work zones, these measures are necessary to protect the safety of construction workers and 2831 other vehicles, pedestrians, and cyclists. Temporary lane closures may be required to allow workers safe access to areas requiring improvements, when material deliveries are made, and when 2832 2833 roadways are resurfaced with new pavement. These temporary construction safety measures would be like other roadwork construction projects that the public is accustomed to in Prince George's 2834 2835 County, regionally, and throughout the U.S.

- 2836 The BEP's 2021 EIS stated, "Construction of the Powder Mill Road modifications included in the Proposed Action, including a new traffic control device (e.g., stoplight), lane widening, removal 2837 of existing rumble strips, etc., would require temporary closure of all or part of Powder Mill Road 2838 2839 (in the proposed intersection improvement areas). BEP would maintain one-way, alternating traffic 2840 on Powder Mill Road (i.e., by working on one side of the road while the other side is open to one-2841 way traffic) to the extent practicable. In the event through-traffic must be halted on Powder Mill 2842 Road at any point during construction, BEP would establish adequate and well-marked detours to fully accommodate local traffic. BEP would plan all roadwork in close consultation with local 2843 2844 planning authorities. Impacts to local traffic from temporary Powder Mill Road closures would 2845 remain at less-than-significant adverse levels" (Treasury 2021a).
- 2846 Improvements to other intersections along Edmonston Road, Sheep Road, and Baltimore-2847 Washington Parkway, as well as during installation of sanitary sewerage piping under Odell Road, would not impede traffic flow unless a temporary measure, such as but not limited to temporarily 2848 2849 halting traffic or adjusting speed limits, or single lane closure, is necessary to ensure safe 2850 conditions for construction workers and passerby at a given intersection work site. Therefore, 2851 construction of the intersection and other roadway improvements would not permanently decrease 2852 the LOS at the intersection or surrounding intersections, nor prevent access to pedestrian and 2853 bicycle networks, public transportation routes, or community parking areas.
- 2854 In addition to implementing all required federal, state, and local safety requirements, the following
- 2855 impact minimization measures would be implemented to ensure that direct, negligible adverse
- 2856 impacts do not increase to minor levels or expand in geographic area.

- To the extent possible, establish construction activity hours such that construction workers
 and construction vehicles would not travel during the peak hours of the local ROI (i.e.,
 7:45 to 8:45 a.m. and 5:00 to 6:00 p.m.).
- For road work within BARC, construction vehicles would access work sites from the Poultry Road entrance along Powder Mill Road, to the extent practicable.
- Consult with local planning authorities regarding all proposed construction activities
 within the Powder Mill Road right-of-way.
- Construction vehicles would follow existing truck restrictions on regional and local roadways, such as the restriction of commercial trucks on portions of the Baltimore-Washington Parkway. Truck traffic should be routed along Powder Mill Road, Edmonston Road/Kenilworth Avenue, and the Capital Beltway to minimize its use of collector and local roads.
- The proposed roadway improvements on MD 201/Edmonston Rd. include subsequent improvements to reduce the bicycle Level of Traffic Stress to the maximum extent practicable within the local ROI.

4.14.1.2 CUMULATIVE IMPACTS

2873 Incremental impacts on transportation conditions caused by the Proposed Action, when added to 2874 other past, present, and reasonably foreseeable future actions, have been considered. The roadway improvements would be constructed after the utility upgrades are constructed and prior to the new 2875 2876 CFP becoming fully operational, therefore avoiding overlap with those construction activities and 2877 reducing the potential for cumulative adverse impacts to transportation conditions. The Proposed 2878 Action would mitigate failing intersections identified in the EIS as well as reduce queuing time at 2879 these intersections. The Proposed Action would also mitigate adverse transportation impacts 2880 anticipated to intersections, including Edmonston Road/Sunnyside Avenue, Edmonston 2881 Road/Odell Road, and Powder Mill Road/Baltimore-Washington Parkway, identified in 2882 Transportation Impact Studies completed for proposed projects including Harmony Gardens at 2883 Vansville, James J. Rowley Training Center (U.S. Secret Service [USSS] facility), FDA Muirkirk 2884 Road Campus Master Plan, and the FBI Headquarters at Greenbelt. As a result, the Proposed Action would have a long-term beneficial impact on transportation conditions along Edmonston 2885 2886 Road, Powder Mill Road, and the Baltimore-Washington Parkway exit ramp for local traffic and 2887 workers commuting to and from the future CPF and other facilities at BARC and in the surrounding 2888 community.

2889 **4.14.1.3 CONCLUSION**

2890 Under Proposed Action Alternative 1, short-term adverse impacts to transportation conditions 2891 would occur while the roadway improvements are constructed. Impacts would be caused by 2892 temporary lane closures, reduced traffic speeds near construction areas, and modified traffic 2893 signaling near the work areas; these impacts are necessary to ensure a safe work environment for 2894 construction workers and passersby. Impacts would be temporary, localized to roadways immediately adjacent to the work site, and end once construction is complete. As a result, the 2895 2896 Proposed Action would have a short-term, direct, less-than-significant adverse impact on 2897 transportation conditions at each roadway work site. Following construction, the Proposed Action 2898 would have a long-term beneficial impact on transportation conditions by improving road surfaces 2899 and improving traffic flow at the specified roadways.

2900 4.14.2 ALTERNATIVE 2

4.14.2.1 ANTICIPATED IMPACTS

Impacts described under Alternative 1 would be the same for Alternative 2, except that under
Alternative 2, the sanitary sewerage system would not be extended beneath Odell Road. Therefore,
no impacts to Odell Road would occur as a result of sanitary sewer connection work.

2905 4.14.2.2 CUMULATIVE IMPACTS

2906 Cumulative impacts described under Alternative 1 would be the same for Alternative 2, as 2907 described in Section 4.1.38.2.

2908 **4.14.2.3** CONCLUSION

2909 Under Proposed Action Alternative 2, short-term adverse impacts to transportation conditions 2910 would occur while the roadway improvements are constructed. Impacts would be caused by 2911 temporary lane closures, reduced traffic speeds near construction areas, and modified traffic 2912 signaling near the work areas; these impacts are necessary to ensure a safe work environment for construction workers and passerby. All these impacts would be temporary, localized to roadways 2913 2914 immediately adjacent to the work site, and end once construction is complete. As a result, the Proposed Action would have a short-term, direct, less-than-significant adverse impact on 2915 transportation conditions at each roadway work site. Following construction, the Proposed Action 2916 2917 would have a long-term beneficial impact on transportation conditions by improving road surfaces 2918 and improving traffic flow at the specified roadways.

4.14.3 NO ACTION ALTERNATIVE

2920 4.14.3.1 ANTICIPATED IMPACTS

Under the No Action Alternative, the proposed traffic and utility mitigation would not occur. The
significant adverse impacts identified in the BEP 2021 EIS would not be mitigated, and BEP would
not comply with commitments specified in the Record of Decision. Accordingly, the No Action
Alternative would not meet the purpose and need for mitigation.

2925 4.14.3.2 CUMULATIVE IMPACTS

When considered cumulatively with other reasonably foreseeable projects, the No Action Alternative would continue to contribute to the current significant adverse conditions of the selected intersections, resulting in long-term significant adverse cumulative impacts on transportation conditions. The need for transportation mitigation at the intersections identified in BEP's 2021 EIS would remain.

2931 **4.14.3.3 CONCLUSION**

The No Action Alternative would have significant adverse impacts to transportation and the need for transportation mitigation at the intersections identified in BEP's 2021 EIS would remain.

4.15 UTILITIES

For this analysis, BEP assumed that a significant impact would occur if the Proposed Action would:

- result in prolonged or repeated service disruptions to utility end users,
- substantially increase utility demand relative to existing and planned regional uses, and

• reduce local utility supply to the detriment of local communities.

2940 **4.15.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

4.15.1.1 ANTICIPATED IMPACTS

2942 Construction of Alternative 1 could cause temporary disruptions to utility service in the ROI but 2943 would be expected to cease upon completion of construction. These disruptions to utilities could 2944 impact local communities, and any disruptions would be coordinated with WSSC, Washington 2945 Gas, PEPCO, and Verizon. As utility work progresses, BEP and the utility companies would 2946 coordinate with the USDA Utilities Management Unit to coordinate work for minimal disruption 2947 to BARC utilities. Roadway improvements and construction of the new sanitary sewer and gas 2948 lines could require movement of or around existing utility lines. Underground utility locations 2949 would be verified by Miss Utility prior to the start of any construction activities to avoid 2950 unintentional impacts to utilities. All utilities would also be moved to accommodate the 2951 appropriate clearance distances from utility cables to signal structures and cables in accordance 2952 with the latest requirements of the Maryland High Voltage Act and National Electric Safety Code 2953 Sections 233 and 234 (SHA 2017). With the abovementioned precautions taken, short-term 2954 impacts to utilities would be negligible.

As traffic signals use, on average, a single-phase circuit of 120/240 volts, 60 Hertz and 60-200 ampere service, it is expected that the traffic signals proposed as part of the design would be accommodated by the current PEPCO electric system. The operation of proposed improvements would not change usage of other utilities, so existing capacities would be sufficient. Therefore, no long-term, adverse impact to utilities would occur.

2960 Completion of utility improvements would ensure the new CPF site has adequate utility service to 2961 operate, providing a long-term benefit. BEP has confirmed that utility providers have sufficient 2962 capacity to accommodate the anticipated utility demands of the new CPF (Treasury 2021a).

4.15.1.2 CUMULATIVE IMPACTS

2964 Construction of Alternative 1 with ongoing and future developments would result in negligible 2965 adverse cumulative impacts on utility service. Service disruptions to local communities could 2966 occur while new utility infrastructure is being connected to existing systems. These disruptions 2967 would be minimized to the extent practicable through efficient construction sequencing (e.g., 2968 keeping existing utilities operational until the new utilities are ready to be connected), and affected 2969 end users would be given advance notice of anticipated disruptions. Further, the amount and types 2970 of development considered in this analysis is not unusual in an urban or suburban environment or 2971 for an ROI of this size and is therefore not anticipated to result in substantial cumulative degradation of utility services. 2972

2973 **4.15.1.3** CONCLUSION

- 2974 Implementation of Alternative 1 would result in short-term, negligible impacts and long-term 2975 benefits to utilities. Implementation of Alternative 1 with past, present, and reasonably foreseeable
- 2976 actions would result in negligible cumulative impacts to utilities.

4.15.2 ALTERNATIVE 2

2978 4.15.2.1 ANTICIPATED IMPACTS

Impacts to utilities would be the same as under Alternative 1, as described in Section 4.1.41.1.
Under Alternative 1, any disruptions would be coordinated with WSSC, Washington Gas, PEPCO,
and Verizon. As utility work progresses, BEP and the utility companies would coordinate with the

2982 USDA Utilities Management Unit to coordinate work for minimal disruption to BARC utilities.

4.15.2.2 CUMULATIVE IMPACTS

Cumulative impacts to utilities would be the same as under Alternative 1, as described in Section4.1.41.2.

2986 **4.15.2.3** CONCLUSION

Implementation of Alternative 1 would result in short-term, negligible impacts and long-term
benefits to utilities. Implementation of Alternative 1 with past, present, and reasonably foreseeable
actions would result in negligible cumulative impacts to utilities.

4.15.3 NO ACTION ALTERNATIVE

2991 4.15.3.1 ANTICIPATED IMPACTS

Under the No Action Alternative BEP would not perform any improvements to traffic or utilities, so there would be no changes to wastewater, electric, gas, and telecommunications service outside of those independently planned by USDA. There would be no impacts to utilities under the No Action Alternative; however, this alternative would pose issues to the development of BEP's planned replacement CPF as the current sanitary sewer, electric, gas, and telecommunications service lines would not adequately support the new facility.

2998 4.15.3.2 CUMULATIVE IMPACTS

2999 Under the No Action Alternative, there would be no cumulative impacts to utilities.

3000 **4.15.3.3** CONCLUSION

3011

3001 Under the No Action Alternative, there would be no long-term or short-term impacts to utilities.

3002 Consequently, there would be no cumulative impacts. However, the No Action Alternative would 3003 pose an issue to the development of the replacement CPF, as current utility service would not 3004 adequately support the facility.

3005 4.16 HAZARDOUS AND TOXIC MATERIALS AND WASTE

- 3006 For this analysis, BEP defined a significant adverse impact as one that would result in:
- an increase in the number of hazardous substances used, stored, or requiring disposal by a site user beyond what is permitted or manageable;
- an increase in the potential for soil, surface water, or groundwater contamination within
 the ROI could increase human health or ecological risk;
 - an interruption or impediment to any ongoing cleanup efforts; and/or
- an interference with the unrestricted use of properties located outside of the Project Area
 due to contamination within the Project Area.

3014 **4.16.1** ALTERNATIVE **1** (PREFERRED ALTERNATIVE)

3015 4.16.1.1 ANTICIPATED IMPACTS

3016 Prior to the construction of traffic and utilities mitigation features, asbestos-containing materials (ACM) could be encountered during site preparation; however, adhering to the Asbestos National 3017 3018 Emission Standards for Hazardous Air Pollutants would minimize potential ACM hazards 3019 resulting from the removal of existing utility lines (SIA-TPMC 2020a). Construction BMPs would minimize the risk of contamination, thereby safeguarding human and environmental health. 3020 3021 Specifically, construction equipment utilizes petroleum, oil, and lubricants; to ensure these 3022 materials are not released to the environment, all equipment would be maintained in good working 3023 order, emergency spill kits would be present at the construction site and workers trained on its use, 3024 and refueling would be performed by experienced workers to ensure fuel spillage does not occur. Additionally, compliance measures required by the MDE construction general permit would 3025 3026 decrease the likelihood of negative impacts resulting from HTMW (MDE 2020a). Therefore, short-term impacts to HTMW conditions would be negligible. 3027

- 3028 Where feasible, the traffic and utilities mitigation Project Area would avoid AOCs with ongoing
- 3029 RAs, and construction would not interfere with NPL actions or investigations. BEP analyzed areas
- 3030 associated with the proposed entrance road and Powder Mill Road modifications, determining that
- 3031 "no [recognized environmental conditions] or other HTMW concerns are anticipated in these
- areas," except for two AOCs located in the buffer zone (Treasury 2021c, p 4).
- 3033 Long-term, the Proposed Action is not expected to impact HTMW conditions in the Project Area.

3034 4.16.1.2 CUMULATIVE IMPACTS

3035 Alternative 1 could contribute to negligible cumulative impacts on the HTMW condition of the 3036 Project Area due to the temporary increase in HTMW related to construction of the proposed traffic and utility improvements. However, compared to larger projects proposed in Table 4-1, the 3037 3038 Proposed Action's potential contribution to construction-related HTMW conditions in the ROI is 3039 very small and would cease upon completion of construction. The use of BMPs and EPMs during 3040 construction would minimize the temporary risk of environmental contamination associated with 3041 increased use and generation of HTMW. Any potential ACM would be managed, and any waste materials would be properly removed from the site and transported to a licensed landfill for 3042 3043 permanent disposal. When considered along with past, present, and reasonably foreseeable future 3044 actions, potential impacts to HTMW in the Project Area would be negligible, and the Proposed 3045 Action's overall contribution to HTMW conditions would be very small and would cease upon 3046 completion of construction.

3047 **4.16.1.3** CONCLUSION

3048 During construction, the presence of HTMW would temporarily increase due to typical activities 3049 such as the use of paints and adhesives, petroleum products, and heavy machinery. This could 3050 increase the risk of environmental contamination; however, the risk would be minimized through 3051 construction BMPs and proper permitting. Following construction, the Preferred Alternative 3052 would not impact HTMW within the ROI because construction equipment would have 3053 demobilized from the site. When considered with other ongoing and future developments, the 3054 Proposed Action could contribute to negligible cumulative impacts on HTMW conditions.

3055 4.16.2 ALTERNATIVE 2

3056 4.16.2.1 ANTICIPATED IMPACTS

3057 Anticipated impacts resulting from Alternative 2 are like those expected with Alternative 1; 3058 however, the Edmonston Road sanitary sewer alignment option has a greater distance to tie-in with 3059 WSSC services and would require greater excavation to complete. The potential for spills resulting from construction would increase with this distance. With implementation of BMPs and other risk 3060 management measures, short-term impacts to HTMW conditions under Alternative 2 would be 3061 3062 negligible. Long-term impacts would be the same as under Alternative 1, as described in Section 3063 4.1.44.1.

3064 4.16.2.2 CUMULATIVE IMPACTS

3065 Cumulative impacts under Alternative 2 would be the same as Alternative 1, as described in 3066 Section 4.1.44.2.

3067 4.16.2.3 CONCLUSION

- 3068 During construction, the presence of HTMW would temporarily increase due to typical activities
- 3069 such as the use of paints and adhesives, petroleum products, and heavy machinery. This could
- increase the risk of environmental contamination; however, the risk would be minimized through 3070
- 3071 construction BMPs and proper permitting. Following construction, Alternative 2 would not impact
- HTMW within the ROI because construction equipment would have been demobilized from the 3072 3073 site. When considered with other ongoing and future developments, the Proposed Action could
- 3074
- contribute to negligible cumulative impacts on HTMW conditions.
- 3075 **4.16.3 NO ACTION ALTERNATIVE**

3076 4.16.3.1 ANTICIPATED IMPACTS

- 3077 Under the No Action Alternative, BEP would not perform any improvements to traffic or utilities. 3078 As such, no site preparation or construction activities would occur that could introduce HTMW 3079 into the environment. Therefore, the No Action Alternative would have no impact on HTMW
- 3080 conditions.

3081 **4.16.3.2** CUMULATIVE IMPACTS

3082 Under the No Action Alternative, there would be no cumulative impacts to HTMW conditions.

3083 4.16.3.3 CONCLUSION

3084 Under the No Action Alternative, there would be no long-term or short-term impacts to HTMW 3085 conditions. Consequently, there would be no cumulative impacts.

4.17 HEALTH AND PUBLIC SAFETY 3086

- 3087 For this analysis, BEP defined a significant adverse impact as one that would:
- 3088 • violate applicable federal and/or state safety regulations, and
- directly result in the permanent disability or death of one or more persons within the ROI 3089 • 3090 due to an accident or intentionally destructive act during construction or operation of the 3091 Proposed Action.

3092 **4.17.1** ALTERNATIVE 1 (PREFERRED ALTERNATIVE)

3093 4.17.1.1 ANTICIPATED IMPACTS

3094 During the construction of Alternative 1, health and public safety would be ensured through BMPs 3095 and RCMs, such as standard safety practices and measures to prevent environmental 3096 contamination. The health and safety of on-site workers would be maintained through adherence 3097 to OSHA standards, such as the use of appropriate personal protection equipment. Site security 3098 would prevent public access to Project Areas, and within the ROI, construction traffic controls 3099 would maintain safe travel through the adjacent construction zones. EPMs implemented to control 3100 the use and generation of HTMW would also contribute to the protection of health and public safety during the construction of traffic and utilities improvements. While temporary impacts to 3101 3102 first responders and emergency services could result from traffic pattern changes and potential traffic delays during construction, MDE requirements prevent obstruction of first responders 3103 3104 during roadway construction projects. Therefore, short-term impacts to health and public safety 3105 could occur but would be negligible.

Following construction, beneficial impacts under both action alternatives would include improvements to degrading utilities infrastructure and improved safety at the affected intersections, all of which would have a positive impact on health and public safety in the ROI. Along with traffic and utilities improvements, benefits include the addition of on-site bicycle and pedestrian pathways featuring a new pedestrian overlook for an existing wetland meadow (Wetland 4) which would be preserved pear the CPE access read (M NCPPC 2023)

3111 (Wetland 4) which would be preserved near the CPF access road (M-NCPPC 2023).

4.17.1.2 CUMULATIVE IMPACTS

Alternative 1, when considered with ongoing and future developments, could result in cumulative, adverse impacts on health and public safety during construction, such as temporarily increased emergency response time and temporary bike lane closures. These temporary impacts would be less than significant and would cease upon completion of construction. Implementation of EPMs would minimize the Proposed Action's contribution to any adverse, cumulative effects.

- 3118 Traffic and utilities improvement projects could have a long-term beneficial cumulative impact on 3119 public health and safety in the ROI when considered in addition to other current and future developments proposed in the region. The traffic and utility improvements identified in Alternative 3120 1 would help the surrounding community by improving access for pedestrians and bicyclists, 3121 3122 increasing service levels of existing intersections, and enhancing the integration of current and 3123 future developments in the area. North and west of the CPF Project Site, proposed developments 3124 include single and multiple-family residential units along with commercial and industrial 3125 buildings, all of which would experience improved roadway safety following the completion of 3126 the traffic mitigation projects along Edmonston Road. Improvements to the Edmonston Road/MD 3127 212 intersection could also benefit traffic related to four proposed commercial buildings, which 3128 may be constructed north of Powder Mill Road (Prince George's County Planning Department 3129 2023h).
- 3130 To the east of the CPF Project Site, improvements to the northbound and southbound ramps for
- 3131 the Baltimore-Washington Parkway at Powder Mill Road would improve safe, convenient access
- 3132 to all developments in the area. Proposed future developments adjacent to the Parkway include the
- 3133 USSS James J. Rowley Training Center and the FDA Muirkirk Campus, facilities located on
- almost a thousand acres combined, which will accommodate thousands of federal employees once

complete (USSS 2023; GSA 2023a). Improvements to Baltimore-Washington Parkway access will
benefit the surrounding community, enhancing traffic flow and safety once complete. When
considered along with other new, planned, and potential future development projects in the region,
the traffic and utilities mitigation measures analyzed in this EA would improve the cumulative

3139 condition of health and public safety in the ROI.

3140 **4.17.1.3 CONCLUSION**

3141 During construction, the health and safety of on-site workers and the public would be maintained 3142 through implementation and adherence to safety measures; therefore, short-term impacts to health and public safety would be negligible. Long-term benefits would result from improvements to 3143 3144 traffic and utility infrastructure and the construction of new amenities for bicyclists and 3145 pedestrians. When considered with ongoing and future developments, the Proposed Action would 3146 result in less than significant, short-term cumulative impacts that would cease upon completion of 3147 construction and would be minimized by implementation of EPMs. Long term, implantation of 3148 Alternative 1 would result in a cumulative benefit to public health and safety through infrastructure 3149 improvements.

3150 **4.17.2** ALTERNATIVE **2**

3151 **4.17.2.1 ANTICIPATED IMPACTS**

Impacts under Alternative 2 would be like those under Alternative 1, as described in Section 4.1.47.1. Following construction, both action alternatives would have a beneficial impact on health and public safety. As under Alternative 1, benefits planned in addition to traffic and utility improvements include the addition of on-site bicycle and pedestrian pathways featuring a new pedestrian overlook for an existing wetland meadow (Wetland 4) which will be preserved near the CPF access road (M-NCPPC 2023).

3158 **4.17.2.2** CUMULATIVE IMPACTS

Under Alternative 2, cumulative impacts to health and public safety would be like those under Alternative 1, as described in Section 4.1.47.2. During construction, potential negative impacts could include temporarily increased emergency response time and temporary bike lane closures. However, both action alternatives would have a long-term positive impact on health and public

safety when considered along with other current and anticipated future development in the region.

3164 **4.17.2.3** CONCLUSION

3165 During construction, the health and safety of on-site workers and the public would be maintained through implementation and adherence to safety measures; therefore, short-term impacts to health 3166 and public safety would be negligible. Long-term benefits would result from improvements to 3167 traffic and utility infrastructure and the construction of new amenities for bicyclists and 3168 pedestrians. When considered with ongoing and future developments, Alternative 2 would result 3169 in less than significant, short-term cumulative impacts that would cease upon completion of 3170 3171 construction and would be minimized by implementation of EPMs. Long term, implantation of 3172 Alternative 2 would result in a cumulative benefit to public health and safety through infrastructure

3173 improvements.

4.17.3 NO ACTION ALTERNATIVE

3175 **4.17.3.1 ANTICIPATED IMPACTS**

3176 Under the No Action Alternative, traffic and utilities improvement projects would not take place. 3177 Potential short-term negative impacts to health and human safety would not occur because of 3178 construction, and potential long-term benefits due to the improvement of traffic in the ROI would also not occur. The No Action Alternative would result in long-term, less than significant, adverse 3179 impacts due to the increased volume of traffic and the fact that several unsignalized intersections 3180 3181 are considered unsafe and would remain so if improvements are not constructed. Pedestrian access would remain limited due to the lack of crosswalks and walkways in many areas, and bicyclists 3182 3183 would face increased danger on unimproved bike lanes adjacent to the increased traffic.

3184 **4.17.3.2 CUMULATIVE IMPACTS**

- 3185 When considered along with other current and anticipated future development projects in the area,
- 3186 less than significant adverse cumulative impacts to health and public safety could occur under the
- 3187 No Action Alternative. Failure to improve traffic and utilities infrastructure in the ROI could have
- 3188 increasingly negative impacts on motorists, bicyclists, and pedestrians, as both residential and
- 3189 commercial development in the area continues.

3190 **4.17.3.3** CONCLUSION

- 3191 Adverse impacts to health and public safety under the No Action Alternative due to a lack of traffic
- 3192 improvements would be less than significant. When considered with other current and anticipated
- 3193 future developments in the area, the No Action Alternative would result in less than significant
- adverse cumulative impacts to health and public safety.

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3212 **5. CONSULTATION AND COORDINATION**

3213 Consultation and coordination with the public as well as federal, state, and local agencies was

3214 conducted to identify issues and/or concerns related to natural and cultural resources in the Project

3215 Area. Section 5 provides a summary of the public involvement and agency consultation that 3216 occurred in the preparation of the EA.

3217 **5.1 PUBLIC INVOLVEMENT**

Public participation opportunities with respect to this EA and decision-making on the Proposed
Action are guided by TD 75-02. A Notice of Availability (NOA) of the Draft EA and FONSI was
published in the newspapers of record (listed below), announcing the availability of the Draft EA
for review on [DATE TBD]. The NOA invited the public to review and comment on the Draft EA.
The public and agency review period ended on [DATE TBD]. The NOA and public and agency
comments are provided in Appendix B.

The NOA was published in the Washington Post and Greenbelt News Review. Electronic copies of the EA and Draft FONSI were made available for review on the BEP project website: https://www.nab.usace.army.mil/Home/BEP-Replacement-Project/. The Draft EA and Draft FONSI were also available by BEP upon request, and hard copies were placed in the following public libraries:

- Prince George's County Memorial Library System, Beltsville Branch, 4319 Sellman Rd, Beltsville, MD 20705
- Prince George's County Memorial Library System, Greenbelt Branch, 11 Crescent Rd,
 Greenbelt, MD 20770
 - College Park Community Library, 9704 Rhode Island Ave, College Park, MD 20740

Comments received during the 30-day public review period have been reviewed and addressed in the final EA, as appropriate. A summary of the comments received and responses to comments are in **Appendix K**.

3237 5.1.1 PUBLIC ENGAGEMENT

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3238 On January 17, 2024, BEP held an open house public meeting at the Beltsville Library, 4319 3239 Sellman Rd., Beltsville, MD 20705 from 5:30 – 7:30 p.m. Flyers were emailed and/or mailed to 3240 residents in the EJ ROI, HOAs, local organizations, and Councilman Dernoga (who posted it on 3241 social media), and calls were made to local houses of worship. See **Appendix L** for copies of the 3242 flyers.

At the open house, BEP displayed five posters (in English and Spanish) outlining the components of the Proposed Action with assigned staff to respond to and record any comments or questions raised by the attendees. The posters provided details on the following topics:

- 3246 1. Project overview
- 3247 2. Proposed roadway improvements
- 3248 3. Proposed utilities mitigation
- 3249 4. The NEPA process and schedule
- 3250 5. Environmental resource areas reviewed for NEPA

3251 See Appendix L for copies of the posters, a list of the individuals and organizations that were

- 3252 invited to the meeting by phone or flyer, and a matrix of comments received from the attendees
- and BEP's responses.

3254 Concerns voiced at the January 17 meeting were raised to SHA. SHA held a follow up meeting on

- February 6, 2024, to discuss safety concerns at the intersection of Edmonston Road at Beaver Dam Road as well as visibility concerns along Powder Mill Road at the crossing over the CSX railroad
- 3257 tracks. SHA recommended that a southbound left turn lane along Edmonston Road and a two-lane
- 3258 approach along Beaver Dam Road, to include one left and one right turn lane within the LOD, be
- 3259 included in the design and construction of the project. In addition, a work order was sent to the
- 3260 SHA District 3 Construction Team to address the condition of pavement markings on the Powder
- 3261 Mill Road bridge between Edmonston Road and U.S. 1 and to install edge lines on Powder Mill
- 3262 Road between Cook Road and U.S. 1 in order to enhance lane markings and provide reference
- 3263 points for residents when driving at night and during inclement weather.
- In addition to the public engagement efforts discussed above, coordination with federal, state, and local jurisdictions is summarized in **Appendix L**.

3266 **5.2** AGENCY CONSULTATION AND COORDINATION

3267 **5.2.1** INTERAGENCY CONSULTATION AND COORDINATION

- Scoping is an early and open process for developing the breadth of issues to be addressed in the EA and identifying significant concerns related to a Proposed Action. Per the requirements of the Intergovernmental Concerns related to a Proposed Action.
- 3270 Intergovernmental Cooperation Act of 1968 (42 USC 4231(a)), and EO 12372, Intergovernmental 3271 Review of Federal Programs, Federal, state, and local agencies with jurisdiction that could be
- 3271 Review of rederal Programs, rederal, state, and local agencies with jurisdiction t 3272 affected by the Proposed Action were notified during the development of this EA.
- As stated in Section 1.4, Scoping and Public Participation, BEP initiated consultation with the
 following agencies as part of the scoping process for the proposed project: USACE, USEPA,
 USDA ARS, USDA NRCS, NPS, USFWS, FHWA, SHA, MDNR, MDE, MHT, Prince George's
 County, M-NCPPC, and NCPC.
- NPS, USDA ARS, and FHWA are cooperating agencies for this NEPA action, and SHA and Prince
 George's County are participating agencies for the NEPA action. The MHT, USDA ARS, MNCPPC, and Anacostia Trails Heritage Area are consulting parties on this Section 106 of the
 NHPA undertaking.
- 3281 Appendix B contains the list of agencies consulted during this analysis and copies of 3282 correspondence.

3283 **5.2.2** GOVERNMENT TO GOVERNMENT CONSULTATIONS

3284 EO 13175, Consultation and Coordination with Indian Tribal Governments, directs Federal 3285 agencies to coordinate and consult with Native American tribal governments whose interests might 3286 be directly and substantially affected by activities on federally administered lands. Consistent with 3287 that EO, federally recognized tribes that are historically affiliated with the Beltsville geographic 3288 region are invited to consult on all proposed undertakings that have a potential to affect properties 3289 of cultural, historical, or religious significance to the tribes. The tribal consultation process is 3290 distinct from NEPA consultation or the interagency coordination process, and it requires separate 3291 notification of all relevant tribes. The timelines for tribal consultation are also distinct from those 3292 of other consultations.

The Native American tribal governments that were coordinated or consulted with regarding these actions are listed in **Appendix B**.

3295 The Delaware Tribe has requested to be a consulting party on this Section 106 undertaking.

3296 **5.2.3 OTHER AGENCY CONSULTATIONS**

Per the requirements of Section 106 of the NHPA and implementing regulations (36 CFR Part 800); Section 7 of the ESA and implementing regulations; and the MBTA; findings of effect and request for concurrence were transmitted to MHT and the USFWS, respectively. Because the Proposed Action is located within Maryland's Coastal Zone, a consistency determination was drafted and will be sent to the Maryland Coastal Zone Management Program, administered by the MDNR, for review. The draft CZMA federal consistency determination is in **Appendix E**. Coordination with MDNR was also initiated to assess potential effects to state-listed species.

3304 Concurrence indicating a finding of no effect for the implementation of the traffic, utility, and construction-related measures was sent by the MHT on April 22, 2024. On November 13, 2023, a 3305 3306 report was generated through the IPaC system, the USFWS online system for searching for species 3307 protected under the ESA, which notes that two protected species have the potential to occur within 3308 the proposed Project Area. The IPaC report is in Appendix F. USFWS has concurred that the 3309 Proposed Action is not likely to adversely affect the NLEB, and there are no Section 7 3310 requirements for the monarch butterfly. Reinitiation of consultation with USFWS would be 3311 required for the tricolored bat should it be listed in the future. Correspondence from USFWS indicating concurrence was received on January 23, 2024. Correspondence from MDNR was 3312 3313 received on December 29, 2023, indicating that forested land in the Project Area may contain FIDS 3314 habitat (see Section 0 for further information) and that part of Beaverdam Creek is designated as 3315 a Nontidal Wetland of Special State Concern. Any impacts to Beaverdam Creek or a 100-foot 3316 upland buffer surrounding the creek may need review by MDE for applicable permits. Refer to correspondence from MDE (Appendix B) for further information on review requirements. 3317

3318 Correspondence regarding the findings, concurrence, and resolution of any adverse impact is 3319 included in **Appendix B**.

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3337 6. LIST OF PREPARERS

- **3338 6.1 TREASURY / BEP**
- 3339 Chuck Davis, Facility Program Manager
- 3340 Craig Booth, Lead Technical Advisor

3341 6.2 USACE BALTIMORE DISTRICT

- 3342 Juliet Healy, NEPA Project Manager, Ecologist
- 3343 Marisa Wetmore, Planning Division, Installation Support Branch Section Chief, Biologist
- 3344 Michael Schuster, Planning Division, Installation Support Branch Chief, Community Planner
- 3345 Eva Falls, Section 106 Coordinator, Archaeologist
- 3346 Lauren Joyal, Ecologist
- 3347 Dan Cockerham, Ecologist
- 3348 Ariel Poirier, Ecologist
- 3349 Amani Khalil, Ecologist
- 3350 Carrie Ozgar, Program Manager
- 3351 Rebecca Devlin, Project Manager
- 3352 Stephen Jarosak, Project Manager
- 3353 Matt Breitenother, Design Manager
- 3354 Wajeeh Khan, Student Trainee (Physical Science)

3355 6.3 CONSULTANTS: EAS-STELL JV AND MABBETT

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Table 6-1. Consultant Contributors to EA

Name	Education	EA Role	Years of Experience
Byron, Rudi	MURP, Environmental Planning BS, Environmental Policy, and Politics	Senior Technical Advisor; Senior QA/QC	18
Farmer, Jason	MS Biology, conc. in Wetland Ecology BS, Biology, conc. in Vertebrate Zoology	Water Resources; Biological Resources	24
Gascoyne, Danielle	BS, Environmental Health	Program Manager	17
Glucksman, Andrew	MS, Agronomy BS, Resource Development	Air Quality; Transportation	20
Grabelle, Samantha	BA, Multicultural Education MSW, Community Organizing	EJ	30+ Professional 2 Environmental Consulting/EJ
Howell, Ann Marie	MBA, conc. in Sustainability and Compliance BA, Geoscience, Natural Resources and Conservation	Climate Change and Greenhouse Gas; GIS Analysis and Graphics	6
Knight-Iske, Geri	MA, Anthropology	Cultural Resources	14

Name	Education	EA Role	Years of
			Experience
Kolluri, Liliana	MS, Forest Resources and	Project Manager; Land Use;	10
	Conservation, conc. in Natural	Topography and Soils; Noise;	
	Resource Policy and	Aesthetics and Visual	
	Administration	Resources; Socioeconomics;	
	BS, Environmental Biology	Utilities	
Markesteyn, Charla	BS, Environmental Management	Protection of Children; HTMW;	3
	in Agriculture and Natural	Health and Public Safety	
	Resources		
Oliver, Lisa	BA, Anthropology	Editor, Cultural Resources	13
Switzer, Jennifer	MS, Environmental Engineering	Senior Technical Advisor;	25
	MUP, Regional Planning	Senior QA/QC	
	MPH, Public Health		
	BA, Environmental Studies		

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April 2024

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APPENDIX A: FIGURES





Figure 2-1 Alternative 1 (Preferred Alternative)









Figure 2-2 Alternative 2



CPF Boundary Powder Mill Road Traffic Mitigation LOD Bioswale Maintenance Access Sheep Road Regrading/Repaving LOD Construction Laydown Area Well Access Road Animal Husbandry Road Traffic Mitigation LOD Rumble Strips Removed Baltimore-Washington Parkway/I-295 Traffic Mitigation LOD PEPCO Electric Line Alignment CPF Access Road Traffic Mitigation LOD Verizon Line Alignment Edmonston Road/MD 201 Traffic Mitigation LOD Washington Gas Line Alignment Sanitary Sewer Edmonston Road Alignment Poultry Road Removal LOD



Figure 2-3 SanitarySewer







Sanitary Sewer Odell Road Alignment

Sanitary Sewer Edmonston Road Alignment

CPF Boundary















Figure 3-2 Zoning

ZONING CATEGORIES

AG	Agriculture and Preservation
AR	Agricultural-Residential
CGO	Commercial, General and Office
CN	Commercial, Neighborhood
CS	Commercial, Service
IE	Industrial, Employment
IH	Industrial, Heavy
LCD	Legacy Comprehensive Design
LMUTC	Legacy Mixed-Use Town Center
LMXC	Legacy Mixed-Use Community
LTO-C	Local Transit-Oriented, Core
LTO-E	Local Transit-Oriented, Edge
NAC	Neighborhood Activity Center
RE	Residential Estate
RMF-12	Residential, Multifamily-12
RMF-20	Residential, Multifamily-20
RMF-48	Residential, Multifamily-48
RMH	Planned Mobile Home Community
ROS	Reserved Open Space
RR	Residential, Rural
RSF-65	Residential, Single-Family-65
RSF-95	Residential, Single-Family-95
RSF-A	Residential, Single-Family-Attached
RTO-H-C	Regional Transit-Oriented, High-Intensity, Core
RTO-H-E	Regional Transit-Oriented, High-Intensity, Edge
RTO-L-C	Regional Transit-Oriented, Low-Intensity, Core
RTO-L-E	Regional Transit-Oriented, Low-Intensity, Edge
TAC-C	Town Activity Center, Core
TAC-E	Town Activity Center, Edge





Figure 3-3 Priority Preservation Areas









Sanitary Sewer Odell Road Alignment - Alternative 1





Figure 3-4 Priority Funding Areas







Traffic, Utility, & Construction Measures

Sanitary Sewer Odell Road Alignment - Alternative 1











 Rumble Strips Removed

 CPF Boundary

 Traffic, Utility, & Construction Measures

 Sanitary Sewer Odell Road Alignment - Alternative 1

 Sanitary Sewer Edmonston Road Alignment - Alignment - Alternative 2



Christiana-Downer complex(CcD)

Hammonton loamy sand(HaA)



Figure 3-7 Soils



Figure 3-8 Prime Farmland





Rumble Strips Removed

Sanitary Sewer Odell Road Alignment - Alternative 1

Prime Farmland **CPF** Boundary

Traffic, Utility, & Construction Measures







Figure 3-10 Noise Sensitive Receptors





Rumble Strips Removed Noise ROI

CPF Boundary

Sanitary Sewer Odell Road Alignment -Alternative 1

Sanitary Sewer Edmonston Road Alignment - Alternative 2



Vansville Elementary











Figure 3-11c Wetlands & Streams



⊐Miles

0.05





Figure 3-12 FEMA Floodplain



0





Sanitary Sewer Odell Road Alignment - Alternative 1

Traffic, Utility, & Construction Measures













Rumble Strips Removed



Sanitary Sewer Odell Road Alignment - Alternative 1

FIDS Habitat

Traffic, Utility, & Construction Measures







Figure 3-16 Aesthetic & Visual Resource ROI





 Rumble Strips Removed
 Visual Resources ROI
 CPF Boundary
 Traffic, Utility, & Construction Measures



Sanitary Sewer Odell Road Alignment - Alternative 1



Figure 3-17 Maryland Scenic Byways





Baltimore-Washington Parkway MD 295 Balt-Wash Pkwy	Traffic, Utility, & Construction Measures
 Rumble Strips Removed	Sanitary Sewer Odell Road Alignment - Alternative 1
CPF Boundary	Sanitary Sewer Edmonston Road Alignment - Alternative 2



Figure 3-18 Community Services





Recreation Center

School

CPF Boundary Traffic, Utility, & Construction Measures

Rumble Strips Removed
 1- Mile Buffer
 CBE Reundery

Sanitary Sewer Odell Road Alignment - Alternative 1





	N	Niles	
0	0.35	0.7	

•	Intersection Points
	Rumble Strips Removed
	CPF Boundary



Sanitary Sewer Odell Road Alignment - Alternative 1

Sanitary Sewer Edmonston Road Alignment - Alternative 2

Figure 3-20 Intersections

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3646	APPENDIX B:
3647	COORDINATION



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office 177 Admiral Cochrane Drive Annapolis, Maryland 21401 http://www.fws.gov/chesapeakebay

January 23, 2024

Marisa Wetmore, PMP Section Chief, Installation Support Branch U.S. Army Corps of Engineers Baltimore District, Planning Division 2 Hopkins Plaza 10-B-06 Baltimore, MD 21201

RE: "Not Likely to Adversely Affect" determination for the northern long-eared bat (NLEB) for BEP Traffic Mitigation in Prince George's County, Maryland

Dear Ms. Wetmore:

The U.S. Fish and Wildlife Service (Service) has reviewed your December 22, 2023 and January 2, 2024 email messages; your project information from the Service's Information for Planning and Consultation (IPaC) online system dated November 13, 2023 (species list); and December 11, 2023 (NLEB determination key letter). The Service has evaluated the potential effects of this project to the federally endangered northern long-eared bat (*Myotis septentrionalis*). The comments provided below are in accordance with Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

The purpose of this proposed project is for traffic mitigation actions that will be required if the Bureau of Engraving and Printing (BEP) replacement currency production facility is constructed at the Beltsville Agricultural Research Facility (BARC). The intersections to be mitigated include: Edmonston Road at Powder Mill Road, Edmonston Road at Beaver Dam Road, Edmonston Road at Sunnyside Avenue, Powder Mill Road at Animal Husbandry Road, Powder Mill Road at Springfield Road, Powder Mill Road at the Interstate 295 south bound ramp, and Powder Mill Road at Interstate 295 north bound ramp. Intersection improvements could include road widening, redesigning lanes, and installing traffic signals, among others. Stormwater management and erosion and sediment control measures would be implemented and streetlights may be installed. This project would also include the construction of a well access road off Poultry Road to the east and utility mitigation measures for a new sanitary sewer connection.



This proposed project is within the range of the northern long-eared bat, a federally listed endangered species. This project as proposed is "not likely to adversely affect" the northern long-eared bat because tree removal is minimal (3.92 acres of trees will be removed) and no maternity roosts or hibernacula are present within the project area.

There is a proposed rule to list the tricolored bat (*Perimyotis subflavus*) as an endangered species. A final listing determination will be made in fiscal year 2024. If forest clearing has not occurred prior to the final listing decision for this species, re-initiation of consultation with the Service should occur.

The monarch butterfly (*Danaus plexippus*) is a candidate species and not yet listed or proposed for listing. There are no Section 7 requirements for candidate species.

Except for occasional transient individuals, no other federally proposed or listed threatened or endangered species are known to exist within the project area. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

We appreciate the opportunity to provide information relevant to threatened and endangered fish and wildlife resources. This Endangered Species Act determination does not exempt this project from obtaining all permits and approvals that may be required by other state or Federal agencies. If you have any questions or concerns regarding this letter, please contact Trevor Clark of my Endangered Species staff at 410/573-4527 or by email at trevor_clark@fws.gov.

Sincerely,

Digitally signed by GENEVIEVE GENEVIEVE PULLIS PULLIS Date: 2024.01.23 13:49:25 -05'00'

Genevieve LaRouche Field Supervisor



April 1, 2024

Chief Mike Adams Beltsville Volunteer Fire Department 4911 Prince Georges Ave Beltsville, MD 20705 Chief@beltsvillevfd.com

Dear Chief Adams,

We are writing to you about a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. In accordance with the National Environmental Policy Act (NEPA) (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive 75-02, BEP is completing a supplemental Environmental Assessment (EA) that is tiered off a previously completed Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region, and the signed Record of Decision was dated 8 October 2021.

The proposed action for this supplemental EA consists of traffic and utilities mitigation activities associated with the construction of the CPF at BARC. The proposed action for this supplemental EA includes various improvements to roadways and seven intersections identified in the EIS as requiring mitigation to minimize delays and reduce queue lengths (Attachment 1). Improvements may include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, and addition of traffic control devices. Rumble strips will be removed along Powder Mill Road. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS.

The purpose of this letter is to request input regarding the potential effects of the project on fire and rescue services. All possible impacts that may result from this project, including any effects to emergency services and response time caused by changes in traffic circulation patterns, access and/or road construction in this area, must be investigated. These impacts may be positive or negative and temporary or permanent.

To maintain the project schedule, your written response is requested by 1 May 2024. Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Juliet Healy, USACE Ecologist, at 410-430-7022 or by email at Juliet.M.Healy@usace.army.mil.

Sincerely, OZGAR.CARRIE, Digitally signed by OZGAR.CARRIEA 1380557840 A.1380557840 Date: 2024.03.21 155238-04007

Carrie Ozgar Program Manager USACE, Baltimore District



B-4



April 1, 2024

Commander Major Jason Fisher Division VI – Beltsville Police Department 4321 Sellman Rd Beltsville, MD 20705 jlfisher@co.pg.md.us

Dear Commander Major Fisher,

We are writing to you about a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. In accordance with the National Environmental Policy Act (NEPA) (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive 75-02, BEP is completing a supplemental Environmental Assessment (EA) that is tiered off a previously completed Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region, and the signed Record of Decision was dated 8 October 2021.

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The purpose of this letter is to request input regarding the potential effects of the project on emergency service and police response times. All possible impacts that may result from this project, including any effects to emergency services and response time caused by changes in traffic circulation patterns, access and/or road construction in this area, must be investigated. These impacts may be positive or negative and temporary or permanent.

To maintain the project schedule, your written response is requested by 1 May 2024. Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Juliet Healy, USACE Ecologist, at 410-430-7022 or by email at Juliet.M.Healy@usace.army.mil.

Sincerely,

OZGAR.CARRIE. A.1380557840 Carrie Ozgar Program Manager USACE, Baltimore District





April 1, 2024

National Park Service United States Park Police 6501 Greenbelt Road Greenbelt, Maryland 20770

To whom it may concern,

We are writing to you about a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. In accordance with the National Environmental Policy Act (NEPA) (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive 75-02, BEP is completing a supplemental Environmental Assessment (EA) that is tiered off a previously completed Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region, and the signed Record of Decision was dated 8 October 2021.

The proposed action for this supplemental EA consists of traffic and utilities mitigation activities associated with the construction of the CPF at BARC. The proposed action for this supplemental EA includes various improvements to roadways and seven intersections identified in the EIS as requiring mitigation to minimize delays and reduce queue lengths (Attachment 1). Improvements may include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, and addition of traffic control devices. Rumble strips will be removed along Powder Mill Road. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS.

The purpose of this letter is to request input regarding the potential effects of the project on emergency service and police response times. All possible impacts that may result from this project, including any effects to emergency services and response times caused by changes in traffic circulation patterns, access and/or road construction in this area, must be investigated. These impacts may be positive or negative and temporary or permanent.

To maintain the project schedule, your written response is requested by 1 May 2024. Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Juliet Healy, USACE Ecologist, at 410-430-7022 or by email at Juliet.M.Healy@usace.army.mil.

Sincerely,

OZGAR.CARRIE A.1380557840 0264:024.03.21 15:50:53 -04'00'

Carrie Ozgar Program Manager USACE, Baltimore District





April 1, 2024

Ms. Judy Mickens-Murray Prince George's Public County Schools Board of Education 14201 School Lane Upper Marlboro, MD 20705

Dear Ms. Mickens-Murray,

We are writing to you about a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. In accordance with the National Environmental Policy Act (NEPA) (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive 75-02, BEP is completing a supplemental Environmental Assessment (EA) that is tiered off a previously completed Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region, and the signed Record of Decision was dated 8 October 2021.

The proposed action for this supplemental EA consists of traffic and utilities mitigation activities associated with the construction of the CPF at BARC. The proposed action for this supplemental EA includes various improvements to roadways and seven intersections identified in the EIS as requiring mitigation to minimize delays and reduce queue lengths (Attachment 1). Improvements may include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, and addition of traffic control devices. Rumble strips will be removed along Powder Mill Road. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS.

The purpose of this letter is to request input regarding the potential effects of the project on your schools' transportation services. All possible impacts that may result from this project, including any effects to bus routes caused by changes in traffic circulation patterns, access and/or road construction in this area, must be investigated. These impacts may be positive or negative and temporary or permanent.

To maintain the project schedule, your written response is requested by 1 May 2024. Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Juliet Healy, USACE Ecologist, at 410-430-7022 or by email at Juliet.M.Healy@usace.army.mil.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District





March 14, 2024

Kirstin Falk Heritage Programs Project Manager Maryland Milestones/ATHA Inc. Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 <u>kirstin@anacostiatrails.org</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Ms. Falk:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE Digitally signed by OCGAR.CARRIE, Digitally signed by OCGAR.CARRIE, A.1380557840 A.1380557840 Date: 2024.03.14 12:47:22 -04'00'

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

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Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

Kirstin Falk Heritage Programs Project Manager Maryland Milestones/ATHA Inc. Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 <u>kirstin@anacostiatrails.org</u>

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MNCPPC

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Tribal Governments

Delaware Nation

Katelyn Lucas Delaware Nation Tribal Historic Preservation Officer P.O. Box 826 Anadarko, OK 73006 405-544-8115 <u>klucas@delawarenation-nsn.gov</u>

Delaware Tribe of Indians

Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

Onondaga Indian Nation

Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation Mr. Bryan Printup

Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



March 14, 2024

Katelyn Lucas Delaware Nation Tribal Historic Preservation Officer P.O. Box 826 Anadarko, OK 73006 405-544-8115 <u>klucas@delawarenation-nsn.gov</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Ms. Lucas:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE .A.1380557840 -04(00) Date: 2024.03.14 12:52:02 -04(00)

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

Lisa Bynum, Realty Specialist USDA, ARS, NEA, BARC, PMU, Real Property Section 10300 Baltimore Avenue, Building 426A Beltsville, Maryland 20705-2350 E-Mail: Lisa.Bynum@usda.gov

Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

Kirstin Falk Heritage Programs Project Manager Maryland Milestones/ATHA Inc. Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 <u>kirstin@anacostiatrails.org</u>

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Tribal Governments

Delaware Nation

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Delaware Tribe of Indians

Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

Onondaga Indian Nation

Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation Mr. Bryan Printup

Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsvi	le
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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

B-32

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road
Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS **2 HOPKINS PLAZA** BALTIMORE, MARYLAND 21201

March 14, 2024

Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Ms. Bachor:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

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OZGAR.CARRIE.A.1380557840 Date: 2024.03.14 12:48:28 -04'00'

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

Lisa Bynum, Realty Specialist USDA, ARS, NEA, BARC, PMU, Real Property Section 10300 Baltimore Avenue, Building 426A Beltsville, Maryland 20705-2350 E-Mail: Lisa.Bynum@usda.gov

Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

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Delaware Tribe of Indians

Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

Onondaga Indian Nation

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Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation Mr. Bryan Printup

Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsvil	lle
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Area A: Proposed Improvements Along Edmonston Road	.4
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Description of Proposed Work	. 8
Identification of Historic Properties	. 8
Assessment of Effects	. 8

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Mr. Gonyea:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE Digitally signed by OZGAR.CARRIE.A.1380557840 Date: 2024.03.1412:53:54 -04'00'

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

Lisa Bynum, Realty Specialist USDA, ARS, NEA, BARC, PMU, Real Property Section 10300 Baltimore Avenue, Building 426A Beltsville, Maryland 20705-2350 E-Mail: Lisa.Bynum@usda.gov

Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

Kirstin Falk Heritage Programs Project Manager Maryland Milestones/ATHA Inc. Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 <u>kirstin@anacostiatrails.org</u>

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MNCPPC

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Tribal Governments

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Delaware Tribe of Indians

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Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation Mr. Bryan Printup

Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsvil	lle
Agricultural Research Center (BARC), Prince Georges County	. 1
§ 800.5 (a) (1) Criteria of adverse effect.	. 1
Area A: Proposed Improvements Along Edmonston Road	.4
Description of Proposed Work	.4
Identification of Historic Properties	.4
Assessment of Effects	.4
Area B: Utility Work along Odell and Powder Mill	.6
Description of Proposed Work	.6
Identification of Historic Properties	.6
Assessment of Effects	.6
Area C: BW Parkway	. 8
Description of Proposed Work	. 8
Identification of Historic Properties	. 8
Assessment of Effects	. 8

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





B-64

Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Ms. Cole:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE, Digitally signed by OZGAR.CARRIE, 1380557840 A.1380557840 -0400

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

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Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

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Jennifer A. Stabler, Ph.D. Archeology Planner IV, Historic Preservation Section 14741 Governor Oden Bowie Drive Upper Marlboro, MD 20772 jennifer.stabler@ppd.mncppc.org

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Delaware Tribe of Indians

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Onondaga Indian Nation

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Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation Mr. Bryan Printup

Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org
Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

MNCPPC Jennifer A. Stabler, Ph.D. Archeology Planner IV, Historic Preservation Section 14741 Governor Oden Bowie Drive Upper Marlboro, MD 20772 jennifer.stabler@ppd.mncppc.org

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Dr. Stabler:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE Jojitally signed by OZGAR.CARRIE.A.1380557840 A.1380557840 -0400

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

Lisa Bynum, Realty Specialist USDA, ARS, NEA, BARC, PMU, Real Property Section 10300 Baltimore Avenue, Building 426A Beltsville, Maryland 20705-2350 E-Mail: Lisa.Bynum@usda.gov

Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

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Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

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NCPC

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Tribal Governments

Delaware Nation

Katelyn Lucas Delaware Nation Tribal Historic Preservation Officer P.O. Box 826 Anadarko, OK 73006 405-544-8115 <u>klucas@delawarenation-nsn.gov</u>

Delaware Tribe of Indians

Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

Onondaga Indian Nation

Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

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Tuscarora Nation

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 <u>bprintup@hetf.org</u>

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Stephanie Free NCPC 401 9th Street, NW Washington, DC 20004 <u>stephanie.free@ncpc.gov</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Ms. Free:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE OZGAR.CARRIE.A.1380557840 .A.1380557840 Date: 2024.03.14 12:57:54 -04'00'

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

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Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

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Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 <u>bprintup@hetf.org</u>

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsvi	lle
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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*



Figure 6: Proposed Utility Improvement Locations (see also Figure 2)
Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 <u>bprintup@hetf.org</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Mr. Printup:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

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Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

Lisa Bynum, Realty Specialist USDA, ARS, NEA, BARC, PMU, Real Property Section 10300 Baltimore Avenue, Building 426A Beltsville, Maryland 20705-2350 E-Mail: Lisa.Bynum@usda.gov

Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

Kirstin Falk Heritage Programs Project Manager Maryland Milestones/ATHA Inc. Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 <u>kirstin@anacostiatrails.org</u>

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Stephanie Free 401 9th Street, NW Washington, DC 20004 stephanie.free@ncpc.gov

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Jennifer A. Stabler, Ph.D. Archeology Planner IV, Historic Preservation Section 14741 Governor Oden Bowie Drive Upper Marlboro, MD 20772 jennifer.stabler@ppd.mncppc.org

Tribal Governments

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Delaware Tribe of Indians

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Onondaga Indian Nation

Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Mr. Bonaparte:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE, Digitally signed by OZGAR.CARRIE, 1380557840 A.1380557840 -04/00'

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

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Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

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Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 <u>bprintup@hetf.org</u>

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsvi	le
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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."









Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 <u>wtarrant@sctribe.com</u>

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Mr. Tarrant:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE, Digitally signed by OZGAR.CARRIE, 1380557840 A.1380557840 -04'00'

Carrie Ozgar USACE Program Manager

Enclosures

List of Consulting Parties and Cooperating Agencies Point of Contacts

Federal Agencies

National Park Service

Daniel T. Weldon, MHP Cultural Resources Program Manager (CRPM) COR and ATR National Capital Parks- East 1900 Anacostia Drive, SE Washington, D.C. 20020

US Department of Agriculture

Lisa Bynum, Realty Specialist USDA, ARS, NEA, BARC, PMU, Real Property Section 10300 Baltimore Avenue, Building 426A Beltsville, Maryland 20705-2350 E-Mail: Lisa.Bynum@usda.gov

Federal Highway Administration

Thomas Sohn, PE Project Manager Eastern Federal Lands Highway Division Federal Highway Administration 22001 Loudoun County Parkway Building E-2, Suite #200 Ashburn, VA 20147 <u>Thomas.sohn@dot.gov</u>

Consulting Parties

Maryland Historical Trust

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 <u>beth.cole@maryland.gov</u>

Anacostia Heritage Trails

Kirstin Falk Heritage Programs Project Manager Maryland Milestones/ATHA Inc. Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 <u>kirstin@anacostiatrails.org</u>

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Jennifer A. Stabler, Ph.D. Archeology Planner IV, Historic Preservation Section 14741 Governor Oden Bowie Drive Upper Marlboro, MD 20772 jennifer.stabler@ppd.mncppc.org

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Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

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Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

Saint Regis Mohawk Tribe

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 <u>darren.bonaparte@srmt-nsn.gov</u>

Seneca-Cayuga Nation of Oklahoma

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 wtarrant@sctribe.com

Tuscarora Nation

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 <u>bprintup@hetf.org</u>

Assessment of Effects to Historic Properties BEP Traffic and Utilities Mitigation Project March 2024

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Description of the Proposed Undertaking: BEP Traffic and Utilities Mitigation Project at Beltsville Agricultural Research Center (BARC), Prince Georges County

The purpose of the Proposed Action is to implement the traffic, utility, and construction-related improvement requirements as outlined in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) in the National Capital Region (NCR) and as determined by design changes that have come about after the BEP 2021 EIS Record of Decision signature. The BEP 2021 EIS identified seven traffic intersections that would be considered at a failing level of service (LOS) during and after the construction of the replacement CPF. These failing intersections would require various roadway improvements to minimize delays and reduce queue lengths. The Proposed Action is needed to ensure the traffic LOS at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of BEP's replacement CPF in Beltsville. It is also necessary to ensure that utility systems in place are sufficient to support BEP's replacement CPF design.

Figure 1 shows the locations of the proposed traffic and utility improvements. The undertaking will include several actions, including the following:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.

The project has been divided into three areas in this document to better discuss the potential effects to historic properties at each location and, in accordance with Section 106 of the National Historic Preservation Act (36CFRPart800), whether these effects meet the criteria for an 'adverse effect'.

§ 800.5 (a) (1) Criteria of adverse effect.

"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."




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Appendix B, Coordination

Area A: Proposed Improvements Along Edmonston Road

Description of Proposed Work: MD201/ Edmonston Road Area (Figures 3-5)

- Proposed widening of MD201/Edmonston Road to improve the vehicular LOS.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- Installation of new roadway signage along Edmonston Road.

Identification of Historic Properties:

This work is located within the BARC Historic District. The BARC Historic district encompasses 6,582 acres across five locations (Farms) around Beltsville, MD. It is eligible under NRHP Criteria A and C. The history of BARC is tied to New Deal policies and programs, and the research over the past 100 years has contributed to the advancement of farming practices throughout the United States. The Project Area is located on the Central Farm. On BARC, the cultural landscape includes the precontact, historic, and present uses of the land. The landscape includes the intentionally designed layout of the BARC research areas, buildings, structures, and agricultural fields.

There are three known archaeological sites, 18PR90, 18PR91, and 18PR92, along Edmonston Road between the intersections of Sunnyside Avenue and Powder Mill Road. These sites have never been formally investigated to determine their NRHP eligibility status. In 2022, BEP completed an archaeological survey of the portions of the sites within the project's proposed limits of disturbance (LOD) to determine if the project will impact any significant archaeological features. This survey determined that the project will not adversely impact any significant archaeological features associated with these sites, and MHT concurred with this finding in a letter dated, August 23, 2022.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking. In accordance with MHT's recommendations, the portions of 18PR90, 18PR91, and 18PR92 that have not been subjected to additional survey by BEP will be avoided during construction.

The proposed roadway improvements will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. While the lane widening of the existing roadway will be visible, it will not adversely impact the integrity of the agricultural setting of the district. Any roadway signage will be in keeping with other signage present throughout the historic district. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 5: Proposed improvements along Edmonston Road at Powder Mill Road

Area B: Utility Work along Odell and Powder Mill

Description of Proposed Work:

- Installation of new roadway signage along Powder Mill Road
- Temporary use of the 7.5-acre laydown area south of the CPF site for parking and storage during construction
- Clearance of the bioswale maintenance access west of the CPF site to access and maintain a planned bioswale.
- Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road. Additional poles (up to 25) will be installed along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.
- Removal of all rumble strips on Powder Mill Road between MD201/Edmonston Road and the Baltimore-Washington (BW) Parkway (Figure 2).
- Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.
- Entrance Road Area Improvements (Figure 6)
 - An entrance road to the CPF will be constructed between Animal Husbandry Road and Poultry Road. This action was previously addressed in the EIS.
 - A portion of Sheep Road near the intersection with Powder Mill Road will be repaved.
 - A portion of Poultry Road, north of the parking entrance for BARC Bldg 229, will be removed.

<u>Identification of Historic Properties</u>: This work is located within the BARC Historic District, Central Farm. In 2022 and 2023, BEP completed archaeological surveys of the project's proposed LODs to identify sites that could be impacted by the project. The surveys did not identify any NRHP eligible sites within the LODs, and MHT concurred with this finding in a letter dated, December 22, 2023.

Assessment of Effects:

No architectural or structural historic properties that contribute to the BARC Historic District will be directly impacted by the proposed work (they will be avoided), and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The proposed work will be within the viewshed of the BARC Historic District. Impacts to the viewshed from construction will be temporary. All laydown areas will be restored to their original agricultural use upon the completion of construction, minimizing effects to BARC's setting. The proposed sewer and gas lines will be installed below ground. The above ground utilities will be installed on poles similar in height and appearance to those utility poles already in use throughout BARC to minimize any potential visual impacts. New utility poles will be installed within existing utility corridors. All new roadway signage will comply with state standards and will be in keeping with signage already in use on BARC. The removal of the rumble strips along Powder Mill Road will restore the rural agricultural setting and feeling for motorists passing through BARC. The roadway improvements will not diminish the integrity of the historic district but will make the historic district safer for the public accessing BARC. *Therefore, BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking.*





Area C: BW Parkway

Description of Proposed Work:

- Potential installation of stormwater bioswale features (BEP is working with the National Park Service [NPS] and Maryland Department of the Environment [MDE]).
- Proposed new signalization to improve vehicular LOS (Figure 7).
- Proposed road widening to accommodate new turn lanes.

<u>Identification of Historic Properties</u>: The proposed work is located within the BW Parkway Historic District. The BW Parkway Historic District is a scenic 29-mile highway connecting Baltimore, MD, to Washington, DC, that opened to vehicle traffic in 1954. The BW Parkway passes over Powder Mill Road. The BW Parkway was constructed predominately through undeveloped land which has aided in the preservation of forests and meadows along the parkway despite the surrounding suburban growth, stimulated in part, by the existence of the Parkway.

This area along the Parkway has been previously surveyed for archaeological resources (MHT report call numbers PR172, MO37B, and AN46). There is one known archaeological site, 18PR1127, located in the southeast quadrant of the intersection of the BW Parkway and Powder Mill Road outside of the current project's LOD. It was determined not eligible for listing in the NRHP in 2021.

<u>Assessment of Effects</u>: No architectural or structural historic properties that contribute to the BARC Historic District along Powder Mill Road will be directly impacted by the proposed work. The project will avoid site 18PR1127, and no NRHP eligible archaeological sites will be adversely affected by the proposed undertaking.

The traffic lights and any stormwater bioswale features will be within the BW Parkway boundary and the viewshed of the BARC Historic District. Impacts to the viewsheds from construction will be temporary. As there are traffic signals located at the base of exit ramps at other locations along the Parkway and within the BARC Historic District, the introduction of two signals at this interchange will not diminish the integrity of the historic properties. The signals will not be visible to the majority of motorists passing through on the Parkway. In close coordination with NPS, any stormwater features will be designed to minimize their appearance on the landscape by using bioswale features with native plantings to retain green space. The edges of the bioswales will be "feathered" with plantings historically present along the Parkway to make the stormwater features less noticeable and in keeping with the NPS' cultural landscape plan for the Parkway. *BEP has determined the proposed undertaking will have no adverse effect on historic properties for this portion of the undertaking*.



Figure 7: BW Parkway Intersection Improvements



7 November 2023

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Reinitiating Agency Coordination for the Bureau of Engraving and Printing (BEP) Traffic and Utilities Mitigation Supplemental Environmental Assessment (EA) at the Beltsville Agricultural Research Center (BARC), Beltsville, Maryland

1. BEP is reinitiating agency coordination for a new proposed action at BARC in Beltsville, Maryland. The proposed action consists of traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The construction and operation of the replacement CPF was addressed in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision was dated 8 October 2021. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS. Agency coordination will be completed in accordance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA).

2. BEP previously contacted your agency when this supplemental EA effort began in 2021; however, due to design updates, the proposed action has since been updated. We are now requesting additional or revised comments since our last communication about this project.

3. BEP has requested the assistance of the U.S. Army Corps of Engineers, Baltimore District (USACE) in conducting the appropriate NEPA and Section 106 processes. USACE is authorized to prepare and send agency correspondence, collect and compile responses from such correspondence, and to arrange phone calls, meetings, and site visits as necessary.

4. This supplemental EA will be prepared in accordance with NEPA (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive (TD) 75-02. This EA will be tiered from BEP's previous EIS in accordance with 40 CFR 1508.28, which states that tiering from an EIS is appropriate for a subsequent analysis at a later stage (such as mitigation).

5. Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to the USACE NEPA study manager, Juliet Healy, at 410-430-7022 or by email at Juliet.M.Healy@usace.army.mil.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District



Enclosure 1: Project Location

Sanitary Sewer

CPF Improvements

	DEPARTMENT OF THE TREASURY BUREAU OF ENGRAVING AND PRINTING	
WASHINGTON, DC		FT. WORTH, TX
	August 22, 2019	
MEMORANDUM F	OR RECORD	
SUBJECT: Agency Facility	Coordination for the Construction of a Proposed Repla at Beltsville Agricultural Research Center, Beltsville, N	cement Currency Production Maryland
1. The Bureau of Engr at the Beltsville Agric the demolition of 24 e production facility alo 106 of the National Hi	raving and Printing (BEP) is initiating agency coordinati ultural Research Center (BARC) in Beltsville, MD. The xisting buildings at BARC and the construction of a rep ng Poultry Road. Agency coordination will be complete storic Preservation Act and the National Environmental	on for a new proposed actio proposed action consists of lacement currency d in accordance with Section Policy Act (NEPA).
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Enclosure 3: Agency Mailing List

Ms. Carrie Traver U.S. Environmental Protection Agency, Region 3 Office of Environmental Programs (3EA30) 1650 Arch Street Philadelphia, PA 19103-2029 traver.carrie@epa.gov

Ms. Genevieve LaRouche U.S. Department of the Interior Fish & Wildlife Service Chesapeake Bay Field Office 177 Admiral Cochrane Drive Annapolis, MD 21401

Mr. Phillip King U.S. Department of Agriculture National Resources Conservation Service Maryland State Office 339 Busch's Frontage Road, Suite 301 Annapolis, MD 21409

Mr. Jitesh Parikh Federal Highway Administration Maryland Division 31 Hopkins Plaza Suite 1520 Baltimore, MD 21201

Mr. Jason Dubow Maryland State Clearinghouse Maryland Office of Planning, Suite 1101 301 West Preston Street Baltimore, MD 21201-2365

Ms. Lori Byrne Maryland Department of Natural Resources Tawes State Office Building 580 Taylor Avenue Annapolis, MD 21401

Ms. Amanda Redmiles Maryland Department of the Environment Office of the Secretary 1800 Washington Boulevard Baltimore, MD 21230 Mr. Horace Henry Maryland DNR – Forest Service 8023 Long Hill Road Pasadena, MD 21122

Ms. Amanda Sigillito Maryland Department of the Environment Nontidal Wetlands Division 1800 Washington Boulevard Baltimore, MD 21230

Ms. Amanda Malcolm Maryland Department of the Environment Stormwater Management Program 1800 Washington Boulevard Baltimore, MD 21230

Ms. Beth Cole Maryland Historical Trust Project Review and Compliance 100 Community Place Crownsville, MD 21032

Ms. Stephanie Free National Capital Planning Commission 401 9th Street, NW North Lobby, Suite 500 Washington, DC 20576

Ms. Christine Osei Maryland-National Capital Park & Planning Commission 14741 Governor Oden Bowie Drive County Administration Building Upper Marlboro, MD 20772

Mr. Kevin Rose Eastern Federal Lands Highway Division 22001 Loudoun County Parkway Building E2, Suite 200 Ashburn, VA 20147

Mr. Eric Beckett Deputy Director Office of Planning and Preliminary Engineering Maryland Department of Transportation State Highway Administration 707 N. Calvert Street, MS C-301 Baltimore, MD 21202 Ms. Donna Buscemi Division Chief, Environmental Planning Office of Planning and Preliminary Engineering Maryland Department of Transportation State Highway Administration 707 N. Calvert Street, MS C-301 Baltimore, MD 21202

Mr. Dennis Doster Anacostia Trails Heritage Area Inc. Maryland Milestones Heritage Center 4318 Gallatin Street Hyattsville, MD 20781 Appendix B, Coordination



November 13, 2023

Ms. Erin Paden Director of Historic Preservation and Section 106 Delaware Nation of Oklahoma P.O. Box 826 Anadarko, OK 73006 <u>epaden@delawarenation-nsn.gov</u>

Ms. Paden,

We are writing to you to reinitiate consultation for a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland (Prince George's County), which BEP previously reached out to your office about in December 2021. In accordance with the National Environmental Policy Act (NEPA), BEP is reinitiating a supplemental Environmental Assessment that will be tiered off a previously completed Environmental Impact Statement (EIS).

The proposed action consists of traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The construction and operation of the replacement CPF was addressed by BEP in the Final EIS for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision (ROD) was dated 8 October 2021. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance (LOD) identified in the EIS. Since this effort was started in 2021, there have been changes to the LOD and several design updates.

All Tribal consultation will be completed in accordance with NEPA and Section 106 of the National Historic Preservation Act (NHPA).

This supplemental EA will be prepared in accordance with NEPA (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive (TD) 75-02. This EA will be tiered from BEP's previous EIS in accordance with 40 CFR 1508.28, which states that tiering from an EIS is appropriate for a subsequent analysis at a later stage (such as mitigation). The Federal Highway Administration and the National Park Service have agreed to be cooperating agencies on the EA.

BEP has defined the area of potential effect (APE) for this undertaking as the LOD for the traffic improvements and utility corridors, as well as those areas from which these activities will be visible. BEP is in the process of identifying historic properties within the APE. A Phase I archaeological investigation is currently underway, and a copy of the draft report will be provided to your office for your review and comment once it has been completed.

BEP has requested the assistance of the U.S. Army Corps of Engineers, Baltimore District (USACE) in facilitating the NEPA and Section 106 processes. USACE is authorized to prepare and send

agency correspondence; collect and compile responses from such correspondence; and to arrange phone calls, meetings, and site visits as necessary (Enclosure 2).

Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at <u>Eva.E.Falls@usace.army.mil</u>.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District





August 22, 2019 CORD ination for the Construction of a Proposed sville Agricultural Research Center, Beltsv nd Printing (BEP) is initiating agency coor Research Center (BARC) in Beltsville, ME puildings at BARC and the construction of try Road. Agency coordination will be cor reservation Act and the National Environm	FT. WORTH, TX Replacement Currency Productio ville, Maryland dination for a new proposed action consists of a replacement currency npleted in accordance with Section tental Policy Act (NEPA).
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November 13, 2023

Ms. Susan Bachor Archaeologist Delaware Tribe of Indians 126 University Circle Stroud Hall, Room 437 East Stroudsburg, PA 18301 sbachor@delawaretribe.org

Ms. Bachor,

We are writing to you to reinitiate consultation for a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland (Prince George's County), which BEP previously reached out to your office about in December 2021. In accordance with the National Environmental Policy Act (NEPA), BEP is reinitiating a supplemental Environmental Assessment that will be tiered off a previously completed Environmental Impact Statement (EIS).

The proposed action consists of traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The construction and operation of the replacement CPF was addressed by BEP in the Final EIS for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision (ROD) was dated 8 October 2021. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance (LOD) identified in the EIS. Since this effort was started in 2021, there have been changes to the LOD and several design updates.

All Tribal consultation will be completed in accordance with NEPA and Section 106 of the National Historic Preservation Act (NHPA).

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BEP has defined the area of potential effect (APE) for this undertaking as the LOD for the traffic improvements and utility corridors, as well as those areas from which these activities will be visible. BEP is in the process of identifying historic properties within the APE. A Phase I archaeological investigation is currently underway, and a copy of the draft report will be provided to your office for your review and comment once it has been completed.

BEP has requested the assistance of the U.S. Army Corps of Engineers, Baltimore District (USACE) in facilitating the NEPA and Section 106 processes. USACE is authorized to prepare and send agency correspondence; collect and compile responses from such correspondence; and to arrange phone calls, meetings, and site visits as necessary (Enclosure 2).

Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at Eva.E.Falls@usace.army.mil.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District



Enclosure 1: Project Location



August 22, 2019 CORD ination for the Construction of a Proposed sville Agricultural Research Center, Beltsv nd Printing (BEP) is initiating agency coor Research Center (BARC) in Beltsville, ME puildings at BARC and the construction of try Road. Agency coordination will be cor reservation Act and the National Environm	FT. WORTH, TX Replacement Currency Productio ville, Maryland dination for a new proposed action consists of a replacement currency npleted in accordance with Section tental Policy Act (NEPA).
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November 13, 2023

Beth Cole Administrator Project Review and Compliance Maryland Historical Trust 100 Community Place Crownsville, Maryland, 21032

SUBJECT: Updates to the Area of Potential Effect (APE) and Continuation of Section 106 Consultation for the Bureau of Engraving and Printing (BEP) Traffic and Utilities Mitigation Supplemental Environmental Assessment (EA) at the Beltsville Agricultural Research Center (BARC), Beltsville, Maryland

Ms. Cole,

We are writing to your office to provide updates to the APE for the ongoing Section 106 consultation for a proposed undertaking by BEP at the BARC. The proposed undertaking consists of the traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The proposed action includes various improvements to the roadways and seven (7) intersections in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF. Since the project was initiated in 2021, there have been several design updates and changes to the limits of disturbance (LOD).

BEP has defined the APE for this undertaking as the LOD for the traffic improvements and utility corridors, as well as those areas from which these activities will be visible (Enclosure 1). BEP is continuing to identify historic properties within the updated APE. A supplemental Phase I archaeological investigation is currently underway (fieldwork was completed in October 2023), and a copy of the draft report will be provided to your office for your review and comment once it has been completed.

Planning for the proposed undertaking is in its early stages, and we look forward to continued consultation with your office. BEP has requested the assistance of the U.S. Army Corps of Engineers, Baltimore District (USACE) in facilitating the NEPA and Section 106 processes (Enclosure 2). Additionally, while BEP is the lead federal agency, the Federal Highway Administration and the National Park Service have agreed to act as cooperating agencies for this proposed action. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at Eva.E.Falls@usace.army.mil.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District





	DEPARTMENT OF THE TREASURY BUREAU OF ENGRAVING AND PRINTING	A DESCRIPTION OF THE PARTY OF T
WASHINGTON, DC		FT. WORTH, TX
	August 22, 2019	
MEMORANDUM F	OR RECORD	
SUBJECT: Agency Facility	V Coordination for the Construction of a Proposed Repla V at Beltsville Agricultural Research Center, Beltsville, N	cement Currency Production Maryland
1. The Bureau of Engr at the Beltsville Agric the demolition of 24 e production facility alo 106 of the National Hi	raving and Printing (BEP) is initiating agency coordinati ultural Research Center (BARC) in Beltsville, MD. The xisting buildings at BARC and the construction of a rep ng Poultry Road. Agency coordination will be complete istoric Preservation Act and the National Environmental	on for a new proposed actio proposed action consists of lacement currency d in accordance with Section Policy Act (NEPA).
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November 13, 2023

Mr. Tony Gonyea Historic Preservation Office Onondaga Indian Nation 4040 Route 11 Nedrow, NY 13120 <u>ononcomm@gmail.com</u>

Mr. Gonyea,

We are writing to you to reinitiate consultation for a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland (Prince George's County), which BEP previously reached out to your office about in December 2021. In accordance with the National Environmental Policy Act (NEPA), BEP is reinitiating a supplemental Environmental Assessment that will be tiered off a previously completed Environmental Impact Statement (EIS).

The proposed action consists of traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The construction and operation of the replacement CPF was addressed by BEP in the Final EIS for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision (ROD) was dated 8 October 2021. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance (LOD) identified in the EIS. Since this effort was started in 2021, there have been changes to the LOD and several design updates.

All Tribal consultation will be completed in accordance with NEPA and Section 106 of the National Historic Preservation Act (NHPA).

This supplemental EA will be prepared in accordance with NEPA (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive (TD) 75-02. This EA will be tiered from BEP's previous EIS in accordance with 40 CFR 1508.28, which states that tiering from an EIS is appropriate for a subsequent analysis at a later stage (such as mitigation). The Federal Highway Administration and the National Park Service have agreed to be cooperating agencies on the EA.

BEP has defined the area of potential effect (APE) for this undertaking as the LOD for the traffic improvements and utility corridors, as well as those areas from which these activities will be visible. BEP is in the process of identifying historic properties within the APE. A Phase I archaeological investigation is currently underway, and a copy of the draft report will be provided to your office for your review and comment once it has been completed.

BEP has requested the assistance of the U.S. Army Corps of Engineers, Baltimore District (USACE) in facilitating the NEPA and Section 106 processes. USACE is authorized to prepare and send

agency correspondence; collect and compile responses from such correspondence; and to arrange phone calls, meetings, and site visits as necessary (Enclosure 2).

Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at <u>Eva.E.Falls@usace.army.mil</u>.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District



Enclosure 1: Project Location

	BUREAU OF ENGRAVING AND PRINTING	ALLET LE L
WASHINGTON, DC		FT. WORTH, TX
	August 22, 2019	
MEMORANDUM	FOR RECORD	
SUBJECT: Agend Facili	y Coordination for the Construction of a Proposed I y at Beltsville Agricultural Research Center, Beltsvi	Replacement Currency Production ille, Maryland
1. The Bureau of Eng at the Beltsville Agri the demolition of 24 production facility al 106 of the National F	praving and Printing (BEP) is initiating agency coord cultural Research Center (BARC) in Beltsville, MD. existing buildings at BARC and the construction of ong Poultry Road. Agency coordination will be com listoric Preservation Act and the National Environm	lination for a new proposed actio The proposed action consists of a replacement currency pleted in accordance with Sectio ental Policy Act (NEPA).
2. BEP has requested conducting the appro agency corresponden calls, meetings, and s	the assistance of the U.S. Army Corps of Engineers priate NEPA and Section 106 processes. USACE is ce, collect and compile responses from such corresp ite visits as necessary.	, Baltimore District (USACE) in authorized to prepare and send ondence, and to arrange phone
3. Questions or comr Charles.Davis@bep. undertaking. He can	nents may directed to Chuck Davis at 202-874-3259 gov. Harvey L. Johnson is the primary point of conta be reached at 410-962-7961 or by email at Harvey.L	or by email at act at USACE for this .Johnson@usace.army.mil.
	_×	8/22/2019 Charles C. Davis
	sign Charl Burea Facili	ed by: Bureau of Engraving And Printing es C. Davis, P.E. u of Engraving and Printing ty Project Management Office



November 13, 2023

Mr. Darren Bonaparte Tribal Historic Preservation Officer Saint Regis Mohawk Tribe 412 State Route 37 Akwesasne, NY 13655 darren.bonaparte@srmt-nsn.gov

Mr. Bonaparte,

We are writing to you to reinitiate consultation for a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland (Prince George's County), which BEP previously reached out to your office about in December 2021. In accordance with the National Environmental Policy Act (NEPA), BEP is reinitiating a supplemental Environmental Assessment that will be tiered off a previously completed Environmental Impact Statement (EIS).

The proposed action consists of traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The construction and operation of the replacement CPF was addressed by BEP in the Final EIS for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision (ROD) was dated 8 October 2021. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance (LOD) identified in the EIS. Since this effort was started in 2021, there have been changes to the LOD and several design updates.

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agency correspondence; collect and compile responses from such correspondence; and to arrange phone calls, meetings, and site visits as necessary (Enclosure 2).

Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at <u>Eva.E.Falls@usace.army.mil</u>.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District



Enclosure 1: Project Location

	DEPARTMENT OF THE TREASURY BUREAU OF ENGRAVING AND PRINTING	A DESCRIPTION OF THE PARTY OF T
WASHINGTON, DC		FT. WORTH, TX
	August 22, 2019	
MEMORANDUM F	OR RECORD	
SUBJECT: Agency Facility	V Coordination for the Construction of a Proposed Repla V at Beltsville Agricultural Research Center, Beltsville, N	cement Currency Production Maryland
1. The Bureau of Engr at the Beltsville Agric the demolition of 24 e production facility alo 106 of the National Hi	raving and Printing (BEP) is initiating agency coordinati ultural Research Center (BARC) in Beltsville, MD. The xisting buildings at BARC and the construction of a rep ng Poultry Road. Agency coordination will be complete istoric Preservation Act and the National Environmental	on for a new proposed actio proposed action consists of lacement currency d in accordance with Section Policy Act (NEPA).
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3. Questions or comm Charles.Davis@bep.g	ents may directed to Chuck Davis at 202-874-3259 or b by, Harvey L. Johnson is the primary point of contact at	y email at USACE for this
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John	nson@usace.army.mil.
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John	ison@usace.army.mil.
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John	nson@usace.army.mil.
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John	nson@usace.army.mil. 8/22/2019 rles C. Davis
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John <u>Charles C.</u> Bureau of Facility Pr	8/22/2019 rles C. Davis Bureau of Engraving And Printing Davis, P.E. Engraving and Printing oject Management Office
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John <u>Signed by:</u> Charles C. Bureau of Facility Pr	8/22/2019 rles C. Davis Bureau of Engraving And Printing Davis, P.E. Engraving and Printing oject Management Office
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November 13, 2023

Mr. William Tarrant Tribal Historic Preservation Officer Seneca-Cayuga Nation of Oklahoma P.O. Box 45322 Grove, OK 74345 <u>wtarrant@sctribe.com</u>

Mr. Tarrant,

We are writing to you to reinitiate consultation for a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland (Prince George's County), which BEP previously reached out to your office about in December 2021. In accordance with the National Environmental Policy Act (NEPA), BEP is reinitiating a supplemental Environmental Assessment that will be tiered off a previously completed Environmental Impact Statement (EIS).

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All Tribal consultation will be completed in accordance with NEPA and Section 106 of the National Historic Preservation Act (NHPA).

This supplemental EA will be prepared in accordance with NEPA (42 *United States Code* [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and Treasury Directive (TD) 75-02. This EA will be tiered from BEP's previous EIS in accordance with 40 CFR 1508.28, which states that tiering from an EIS is appropriate for a subsequent analysis at a later stage (such as mitigation). The Federal Highway Administration and the National Park Service have agreed to be cooperating agencies on the EA.

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agency correspondence; collect and compile responses from such correspondence; and to arrange phone calls, meetings, and site visits as necessary (Enclosure 2).

Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at <u>Eva.E.Falls@usace.army.mil</u>.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District



Enclosure 1: Project Location
Enclosure 2: Memo

pposed Replacement Currency Production Beltsville, Maryland cy coordination for a new proposed action (le, MD. The proposed action consists of ction of a replacement currency l be completed in accordance with Section nvironmental Policy Act (NEPA). Ingineers, Baltimore District (USACE) in SACE is authorized to prepare and send a correspondence, and to arrange phone 74-3259 or by email at of contact at USACE for this larvey.L.Johnson@usace.army.mil.
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74-3259 or by email at of contact at USACE for this Iarvey.L.Johnson@usace.army.mil.
8/22/2019
Signed by: Bureau of Engraving And Printing Charles C. Davis, P.E. Bureau of Engraving and Printing Facility Project Management Office



DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

November 13, 2023

Mr. Bryan Printup Representative Tuscarora Nation 5226 Walmore Road Lewiston, NY 14092 bprintup@hetf.org

Mr. Printup,

We are writing to you to reinitiate consultation for a new proposed action by the Bureau of Engraving and Printing (BEP) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland (Prince George's County), which BEP previously reached out to your office about in December 2021. In accordance with the National Environmental Policy Act (NEPA), BEP is reinitiating a supplemental Environmental Assessment that will be tiered off a previously completed Environmental Impact Statement (EIS).

The proposed action consists of traffic and utilities mitigation activities associated with the construction of a replacement currency production facility (CPF) at BARC. The construction and operation of the replacement CPF was addressed by BEP in the Final EIS for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision (ROD) was dated 8 October 2021. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance (LOD) identified in the EIS. Since this effort was started in 2021, there have been changes to the LOD and several design updates.

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BEP has requested the assistance of the U.S. Army Corps of Engineers, Baltimore District (USACE) in facilitating the NEPA and Section 106 processes. USACE is authorized to prepare and send

agency correspondence; collect and compile responses from such correspondence; and to arrange phone calls, meetings, and site visits as necessary (Enclosure 2).

Planning for the proposed undertaking is in its early stages, and we look forward to consulting with your office. Questions or comments may be directed to Eva Falls, USACE Cultural Resources Specialist, at 410-962-4458 or by email at <u>Eva.E.Falls@usace.army.mil</u>.

Sincerely,

Carrie Ozgar Program Manager USACE, Baltimore District

ENCLOSURES





Enclosure 2: Memo

	DEPARTMENT OF THE TREASURY BUREAU OF ENGRAVING AND PRINTING	Contraction of the second seco
WASHINGTON, DC		FT. WORTH, TX
	August 22, 2019	
MEMORANDUM F	OR RECORD	
SUBJECT: Agency Facility	V Coordination for the Construction of a Proposed Repla V at Beltsville Agricultural Research Center, Beltsville, N	cement Currency Production Maryland
1. The Bureau of Engr at the Beltsville Agric the demolition of 24 e production facility alo 106 of the National Hi	raving and Printing (BEP) is initiating agency coordinati ultural Research Center (BARC) in Beltsville, MD. The xisting buildings at BARC and the construction of a rep ng Poultry Road. Agency coordination will be complete istoric Preservation Act and the National Environmental	on for a new proposed actio proposed action consists of lacement currency d in accordance with Section Policy Act (NEPA).
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3. Questions or comm Charles.Davis@bep.g	ents may directed to Chuck Davis at 202-874-3259 or b ov. Harvey L. Johnson is the primary point of contact at	y email at USACE for this
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John	nson@usace.army.mil.
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undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John <u>X</u> Charles C. Bureau of Facility Pr	nson@usace.army.mil. 8/22/2019 Irles C. Davis Bureau of Engraving And Printing Davis, P.E. Engraving and Printing oject Management Office
undertaking. He can b	e reached at 410-962-7961 or by email at Harvey.L.John <u>K</u> Char Signed by: Charles C. Bureau of Facility Pr	nson@usace.army.mil. 8/22/2019 Irles C. Davis Bureau of Engraving And Printing Davis, P.E. Engraving and Printing oject Management Office
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Wes Moore, Governor Aruna Miller, Lt. Governor



Maryland DEPARTMENT OF PLANNING

November 17, 2023

Ms. Juliet Healy, Study Manager U.S. Army Corps of Engineers, Baltimore District 2 Hopkins Plaza Baltimore, MD 21203-1715

STATE CLEARINGHOUSE REVIEW PROCESS

State Application Identifier:MD20231113-0881Reviewer Comments Due By:December 19, 2023Project Description:Supplemental Environmental Assessment: Reinitiating Agency Coordination for a New
Proposed Action at Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. The
Proposed Action Consists of Traffic and Utilities Mitigation Activities Associated with the Construction
of a Replacement Currency Production Facility (CPF) at BARC.Project Address:Bureau of Engraving and Printing at the Beltsville Agricultural Research Center, Poultry
Road, Powder Mill Road, Odell Road, and Edmonston Road, Beltsville, MD 20705Project Location:Prince George's CountyClearing barree Center of Schwie Massen

Clearinghouse Contact: Sylvia Mosser

Dear Ms. Healy:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments. MIRC enhances opportunities for approval and/or funding and minimizes delays by resolving issues before project implementation.

Maryland Gubernatorial Executive Order 01.01.1998.04, <u>Smart Growth and Neighborhood Conservation Policy</u>, encourages federal agencies to adopt flexible standards that support "Smart Growth." In addition, Federal Executive Order 12072, <u>Federal Space Management</u>, directs federal agencies to locate facilities in urban areas. Consideration of these two Orders should be taken prior to making final site selections. A copy of Maryland Gubernatorial Executive Order 01.01.1998.04, <u>Smart Growth and Neighborhood Conservation Policy</u> is available upon request.

We have forwarded your project to the following agencies and/or jurisdictions for their review and comments: <u>the</u> <u>Maryland Departments of Natural Resources</u>, the Environment, Transportation, General Services, and Agriculture; <u>the Maryland Military Department</u>; <u>Prince George's County</u>; the Maryland-National Capital Park and Planning Commission in Prince George's County; and the Maryland Department of Planning, including the Maryland

Maryland Department of Planning • 301 West Preston Street, Suite 1101 • Baltimore • Maryland • 21201 Tel: 410.767.4500 • Toll Free: 1.877.767.6272 • TTY users: Maryland Relay • Planning.Maryland.gov Ms. Juliet Healy Page 2 State Application Identifier #: MD20231113-0881

<u>Historical Trust</u>. A composite review and recommendation letter will be sent to you by the reply due date. <u>Your</u> project has been assigned a unique State Application Identifier that you should use on all documents and <u>correspondence</u>. Please be assured that we will expeditiously process your project.

If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at sylvia.mosser@maryland.gov. Thank you for your cooperation with the MIRC process.

Sincerely,

Muph 4. Bune for Joson Dubow

Jason Dubow, Manager Resource Conservation and Management

JD:SM

23-0881_NFP.NEW2.docx

From:	Beth Cole - MHT
То:	BEP Updates
Cc:	Falls, Eva E CIV USARMY CENAB (USA); Becky Roman -MDP-
Subject:	[Non-DoD Source] Re: Re-initiating Consultation for BEP Traffic and Utilities Mitigation at the Beltsville Agricultural Research Center (BARC)
Date:	Thursday, November 30, 2023 9:57:50 AM

Marisa,

Thank you for your recent letter, providing the Maryland Historical Trust (MHT), MD's State Historic Preservation Office, with updates regarding the Section 106 consultation for the BEP Traffic and Utilities Mitigation undertaking associated with the construction of the replacement BEP currency production facility at BARC [MHT Log #202304503].

We appreciate receiving updates to the APE for this undertaking and we understand that USACE is completing supplemental Phase I archaeological survey in the reviewed APE. We look forward to receiving the draft report for review, when available, and to further consultation with BEP, USACE, and other consulting parties to complete the Section 106 review of this undertaking. If you have questions or need further assistance, please contact Becky Roman (for historic structures and landscape issues) at <u>becky.roman@maryland.gov</u> or me (for archaeology and Section 106 issues) at <u>beth.cole@maryland.gov</u>. Thank you for your ongoing coordination on this undertaking. Have a good day,

Beth

To check on the status of a submittal, please use our online search: <u>https://apps.mht.maryland.gov/compliancelog/ComplianceLogSearch.aspx</u>



On Mon, Nov 13, 2023 at 4:42 PM BEP Updates <<u>BEP-Updates@usace.army.mil</u>> wrote:

Good afternoon Ms. Cole,

On behalf of the U.S. Department of Treasury, Bureau of Engraving and Printing (BEP), the U.S. Army Corps of Engineers, Baltimore District (USACE), would like to re-initiate consultation with your agency regarding a new proposed undertaking at the Beltsville Agricultural Research Center (BARC) in Prince George's County, Maryland, per Section 106 of the National Historic Preservation Act (NHPA). This will be a separate undertaking, but is related to BEP's previous undertaking regarding the construction and operation of a

new Currency Production Facility (CPF), which ended in a Memorandum of Agreement between BEP and MHT signed May 3, 2021.

USACE will also be preparing a supplemental Environmental Assessment (EA), which will be tiered off a previously completed Environmental Impact Statement (EIS), for the Proposed Action, and would appreciate receiving your agency's early input to help BEP identify issues for consideration regarding the Proposed Action. The Proposed Action includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths, and will also include utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance (LOD) identified in the EIS.

Please find attached a letter re-initiating Sec 106 consultation. We would appreciate any comments or questions within 30 days of receipt of this letter.

Thank you,

Marisa Wetmore, PMP

Section Chief, Installation Support Branch

USACE Baltimore District, Planning Division

Office: 410-962-9500

Work Cell: 667-203-0149

From:	Traver, Carrie
То:	Healy, Juliet M CIV USARMY CENAB (USA), Wetmore, Marisa L CIV USARMY CENAB (USA)
Cc:	Witman, Timothy
Subject:	[Non-DoD Source] Reinitiating Agency Coordination for the Bureau of Engraving and Printing (BEP) Traffic and Utilities Mitigation Supplemental Environmental Assessment (EA) at the Beltsville Agricultural Research Center (BARC)
Date:	Thursday, December 7, 2023 5:11:55 PM
Attachments:	1-10-22 EPA comments BEP Traffic and Utilities Mitigation Scoping.pdf

Dear Juliet,

Thank you for providing notice that the Bureau of Engraving and Printing (BEP) is reinitiating coordination and proceeding with development of a supplemental Environmental Assessment (EA) for Traffic and Utilities Mitigation with assistance from the U.S. Army Corps of Engineers, Baltimore District (USACE). The EA is tiered from the 2021 Final Environmental Impact Statement (EIS) for the Construction and Operation of a Currency Production Facility (CPF) at the BEP site at the Beltsville Agricultural Research Center (BARC) in Prince George's County, Maryland. The EA includes improvements to the roadways and intersections identified in the EIS as requiring mitigation, utility infrastructure improvements, and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS. The current notice indicates that BEP is requesting additional or revised comments for the supplemental EA due to design updates.

The U.S. Environmental Protection Agency (EPA) previously provided scoping comments for the traffic and utilities mitigation on January 10, 2022, in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508) and Section 309 of the Clean Air Act. We reiterate those previous comments, which we are attaching for your convenience. We have the following additional comments:

- The EA should clearly describe the planned utility and road work that is needed to support the construction of the CPF, including specific utilities, location, capacity, and condition of existing infrastructure for connections, the traffic mitigation measures being considered, staging areas, the width of temporary construction and permanent maintained rights-of-way, and permanent above-ground facilities. Potential impacts such as tree removal, aquatic resource impacts, increased impervious cover, etc. should be estimated.
- Two alternatives for the sanitary sewer are shown. Mapping indicates that Alternative 1 would likely have less earth disturbance and impact to aquatic resources, as it appears that Alternative 2 would likely have impacts to Indian Creek and mapped forested wetlands. As noted in our previous comments, impacts to the riparian area along Indian Creek should be avoided for protection of water quality and habitat. This area is also mapped as a sensitive species

project review area and as Critically Significant for Biodiversity Conservation (Tier 1) by Maryland's Natural Heritage Program Biodiversity Conservation Network (BioNet). Based on the information available at this time, we support selection of Alternative 1 to reduce impacts.

- We continue to stress minimization of direct and indirect impacts to aquatic resources to protect the Beaverdam Creek watershed. As indicated in our previous comments, EPA strongly encourages avoiding impacts to streams and wetlands, consistent with the Clean Water Act Section 404(b)1 Guidelines.
 - Reducing impacts from stormwater runoff from minimizing the construction of additional impervious areas will be critical in water quality protection.
 - It is my understanding that the potential impact areas have been investigated for aquatic resources; we recommend including the updated delineation information in the EA as an appendix.
- Where impacts cannot be avoided, we recommend including an assessment of the impacted wetlands' functions to prioritize avoidance and to assess appropriate mitigation.
- Given the impact of the coronavirus global pandemic on traffic and commuting patterns, we recommend that the EA include updated post-pandemic commuting data to inform the traffic and transportation analysis.

Please note that since our previous comments, several Executive Orders and guidance have been released that may be relevant to the Study, including the following:

• Environmental Justice

In addition to Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, several more recent EOs address the federal government's approach to environmental justice (EJ), including EOs 13985, 14008, and 14096. In particular, EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, expands the directives and concepts that the White House outlined in EO 12898. EO 14096 directs agencies to actively facilitate meaningful public participation and just treatment of all people in agency decision-making processes. EO 14096 also directs agencies to consider cumulative impacts of pollution and other burdens, such as climate change, as populations with EJ concerns may face elevated susceptibility to additional impacts.

We continue to recommend employing a range of best management practices to

reduce the potential for adverse impacts such as noise. Outreach to the surrounding community to inform impacts and mitigation is essential. We recommend clearly indicating the efforts that have occurred and are planned to meaningfully engage communities wth EJ concerns and that the EA indicates how feedback from the local residents and other stakeholders has or will be used to inform design of the project and mitigation measures.

• Greenhouse Gases (GHG) and Climate Change

On January 9, 2023, CEQ published interim guidance to assist federal agencies in assessing and disclosing climate change impacts during environmental reviews. (https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate) CEQ developed this guidance in response to EO 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.* This interim guidance is effective immediately. CEQ indicated that agencies should use this interim guidance to inform the NEPA review for all new proposed actions and may use it for evaluations in process. EPA recommends the interim guidance be applied as appropriate to ensure robust consideration of potential climate impacts, mitigation, and adaptation issues, including estimating GHG emissions from the proposed action and alternatives.

• Habitat Connectivity

The March 21, 2023 CEQ *Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors* indicates that federal agencies should promote greater connectivity across terrestrial, marine, and freshwater habitats and airspaces to sustain biodiversity and enable wildlife to adapt to fluctuating environmental conditions, including those caused by climate change. Consistent with the intent of this guidance, we recommend that the EA consider potential impacts to habitat connectivity and ways to reduce or mitigate such effects. For example, avoiding impacts to riparian buffers and upgrading road culverts to improve passage for aquatic life and other fauna support habitat connectivity.

Thank you for taking the time to discuss and clarify the proposed improvements with me. I appreciate the coordination on the BEP project to date and look forward to further coordination on the draft EA. Please don't hesitate to reach out.

Thank you, Carrie

Carrie Traver

Environmental Assessment Branch Office of Communities, Tribes, & Environmental Assessment U.S. Environmental Protection Agency, Region 3 215-814-2772 <u>traver.carrie@epa.gov</u> Wes Moore, Governor Aruna Miller, Lt. Governor



Maryland DEPARTMENT OF PLANNING

December 28, 2023

Ms. Juliet Healy, Study Manager U.S. Army Corps of Engineers, Baltimore District 2 Hopkins Plaza Baltimore, MD 21203-1715

STATE CLEARINGHOUSE RECOMMENDATION

State Application Identifier: MD20231113-0881

Applicant: U.S. Army Corps of Engineers, Baltimore District

- **Project Description:** Supplemental Environmental Assessment: Reinitiating Agency Coordination for a New Proposed Action at Beltsville Agricultural Research Center (BARC) in Beltsville, Maryland. The Proposed Action Consists of Traffic and Utilities Mitigation Activities Associated with the Construction of a Replacement Currency Production Facility (CPF) at BARC
- **Project Address:** Bureau of Engraving and Printing at the Beltsville Agricultural Research Center, Poultry Road, Powder Mill Road, Odell Road & Edmonston Road, Beltsville, MD 20705

Project Location: Prince George's County

Recommendation: Consistent with Qualifying Comments and Contingent Upon Certain Actions

Dear Ms. Healy:

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 34.02.02.04-.07, the State Clearinghouse has coordinated the intergovernmental review of the referenced project. This letter constitutes the State process review and recommendation. This recommendation is valid for a period of three years from the date of this letter.

Review comments were requested from the <u>Maryland Departments of Agriculture, General Services, Natural Resources,</u> <u>Transportation, and the Environment; Maryland Military Department; Prince George's County; Maryland National Capital</u> <u>Parks and Planning Commission - Prince George's County; and the Maryland Department of Planning, including the</u> <u>Maryland Historical Trust. The Maryland Departments of Agriculture, General Services, and Natural Resources;</u> <u>Maryland Military Department; Prince George's County; and Maryland National Capital Parks and Planning Commission</u> <u>- Prince George's Countyts did not have comments.</u>

The Maryland Department of the Environment (MDE) found this project to be generally consistent with their plans, programs, and objectives, but included certain qualifying comments summarized below.

 "Construction, renovation and/or demolition of buildings and roadways must be performed in conformance with State regulations pertaining to 'Particulate Matter from Materials Handling and Construction' (COMAR 26.11.06.03D), requiring that during any construction and/or demolition work, reasonable precaution must be taken to prevent particulate matter, such as fugitive dust, from becoming airborne. Ms. Juliet Healy December 28, 2023 Page 2 State Application Identifier: **MD20231113-0881**

- During the duration of the project, soil excavation/grading/site work will be performed; there is a potential for encountering soil contamination. If soil contamination is present, a permit for soil remediation is required from MDE's Air and Radiation Management Administration. Please contact the New Source Permits Division, Air and Radiation Management Administration at (410) 537-3230 to learn about the State's requirements for these permits.
- 3. If a project receives federal funding, approvals and/or permits, and will be located in a nonattainment area or maintenance area for ozone or carbon monoxide, the applicant needs to determine whether emissions from the project will exceed the thresholds identified in the federal rule on general conformity. If the project emissions will be greater than 25 tons per year, contact the Air Quality Planning Program of the Air and Radiation Administration, at (410) 537-4125 for further information regarding threshold limits.
- 4. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Resource Management Program at (410) 537-3314 for additional information regarding recycling activities.
- 5. The Solid Waste Program should be contacted directly at (410) 537-3315 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and regulations.
- 6. The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to you in this project. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about these programs and eligibility, please contact the Land Restoration Program at (410) 537-3437."

Additional MDE comments are enclosed.

The Maryland Department of Transportation (MDOT) found this project to be generally consistent with their plans, programs, and objectives, but included certain qualifying comments summarized below.

"The addition of bus stop facilities near the proposed printing facility should be considered to provide alternative modal choices for commuting to and from the facility.

- Powder Mill Road is a popular route for cycling. The proposed Replacement Currency Production Facility does not appear to inordinately effect cyclist safety.
- Please coordinate mitigation measures and other traffic-related issues that will impact SHA facilities with Peter Campanides, P.E., SHA Assistant District 3 Engineer Traffic, at 301-513-7404 or via email at pcampanides@mdot.maryland.gov."

The Maryland Historical Trust (MHT) stated that their finding of consistency is contingent upon the applicant's completion of the review process required under Section 106 of the National Historic Preservation Act, as follows:

"MHT looks forward to further consultation with the US Army Corps of Engineers and Bureau of Engraving and Printing to complete the historic preservation review of the Traffic and Utilities Mitigation Activities undertaking associated with the construction of the Replacement Currency Production Facility at BARC, pursuant to Section 106 of the National Historic Preservation Act (BC 202304597)."

The State Application Identifier Number <u>must</u> be placed on any correspondence pertaining to this project. The State Clearinghouse must be kept informed if the approving authority cannot accommodate the recommendation.

Ms. Juliet Healy December 28, 2023 Page 3 State Application Identifier: **MD20231113-0881**

Please remember, you must comply with all applicable state and local laws and regulations. If you need assistance or have questions, contact the State Clearinghouse staff person noted above at 410-767-4490 or through e-mail at sylvia.mosser@maryland.gov.

Thank you for your cooperation with the MIRC process.

Sincerely, 5

Jason Dubow, Manager Resource Conservation and Management

JD:SM Enclosure—MDE Additional Comments cc:

Tony Redman - DNR Amanda Redmiles - MDE Tyson Byrne - MDOT Tanja Rucci - DGS Denise Burrell - MDA Taylor Bensley - MILT

23-0881_CRR.CLS.docx

Kathleen Herbert - PGEO Ivy Thompson - MNCPPCP Joseph Griffiths - MDPL

Beth Cole - MHT

Response Code: R-1

<u>Supplemental Environmental Assessment: Reinitiating Agency Coordination for a</u> <u>New Proposed Action at BARC in Beltsville, Maryland. The Proposed Action</u> <u>Consists of Traffic and Utilities Mitigation Activities Associated with the</u> <u>Construction of a Replacement Currency Production Facility (CPF) at BARC</u>

Maryland Department of the Environment – WSA/WPRPP

REVIEW FINDING: <u>R1 Consistent with Qualifying Comments</u>

(<u>MD20231113-0881)</u>

County Water and Sewer Plan Consistency

Please note, the portions of the project area are not within an existing sewer service area, according to Prince George's online sewer service maps and 2018 Master Water & Sewer Plan. If sewer service is intended for the property, an amendment to the County Water and Sewer Plan will need to be submitted to include these properties prior to connection. See Map below.



Antidegradation – Tier II

Direct any questions regarding the Antidegradation Review to Angel Valdez via email at <u>angel.valdez@maryland.gov</u>, or by phone at 410-537-3606.

Special protections for high-quality waters in the local vicinity, which are identified pursuant to Maryland's anti-degradation policy.

Anti-degradation of Water Quality: Maryland requires special protections for waters of very high quality (Tier II waters). The policies and procedures that govern these special waters are commonly called "anti-degradation policies." This policy states that "proposed amendments to county plans or discharge permits for discharge to Tier II waters that will result in a new, or an increased, permitted annual discharge of pollutants and a potential impact to water quality, shall evaluate alternatives to eliminate or reduce discharges or impacts." Satisfactory completion of the Tier II Antidegradation Review is required to receive numerous State permits, such as those for wastewater treatment, nontidal wetlands disturbance, waterways construction, and coverage under the general construction permit.

The Tier II review is applicable to all portions of the project within the Tier II watershed of **Beaverdam Creek 2**. The Review consists of (1) a no-discharge alternatives analysis which considers if the activity can avoid any impacts to Tier II waters, i.e., an alternative site or strategic design, (2) a minimization alternatives analysis to limit associated water quality degradation, and potentially (3) a mitigation analysis to account for net loss of vital resources such as forest cover. If there is no assimilative capacity within the Tier II watershed identified above, additional social and economic justification for unavoidable impacts is required. No assimilative capacity means that new water quality data indicates that the Tier II stream segment has degraded below Tier II standards.

To ensure that essential information is provided to MDE when conducting the Tier II Review, MDE has developed forms to assist applicants in completing the no-discharge alternatives analysis, minimization analysis, and mitigation analysis. Adequate completion of these forms and accompanying Tier II report is required to successfully satisfy the Review and is necessary for State permitting and other approvals. A Tier II report template, which uses the information from the completed forms, is also available to help with document formatting and information organization. There are some activities that may require MDE permitting and approval but may not warrant additional Tier II review. Applicants are encouraged to review the Tier II Determination of No Additional Review Form and its applicability to the project before proceeding with the more detailed review analysis explained below.

Determination of No Additional Tier II Review Form V1.1¹

1. Code of Maryland Regulations (COMAR) 26.08.02.04-2 (G(1)) states that "If a Tier II antidegradation review is required, the applicant shall provide an analysis of reasonable

¹ https://mde.maryland.gov/programs/water/TMDL/WaterQualityStandards/Documents/Tier-II-Forms/TierII NoAdditionalReview v1.1.pdf

alternatives that do not require direct discharge to a Tier II water body (no-discharge alternative). The analysis shall include cost data and estimates to determine the cost effectiveness of the alternatives".

2. This form is for the evaluation of land disturbing activities such as those requiring a

nontidal wetlands or waterways construction permit, or a general stormwater

construction permit (NOI), to demonstrate that:

a. the project is exempt from the no-discharge alternatives analysis; and

b. the project consists of minor, unavoidable impacts to on-site streams, including stream buffers averaging 100'; and

c. the project will not cause net forest loss in the affected Tier II watershed, or loss will be less than 1 acre; and

d. all impervious surfaces associated with the project are treated with

environmental site design practices, with existing structures with remaining capacity.

Tier II No-Discharge Analysis Form V1.2:²

1. Code of Maryland Regulations (COMAR) 26.08.02.04-2 (G(1)) states that "If a Tier II antidegradation review is required, the applicant shall provide an analysis of reasonable alternatives that do not require direct discharge to a Tier II water body (no-discharge alternative). The analysis shall include cost data and estimates to determine the cost effectiveness of the alternatives".

2. For land disturbing projects that result in permanent land use change, this 'no discharge' analysis specifically evaluates the reasonability of other sites or alternate routes which could be developed to meet the project purpose, but are located *outside* of the Tier II watershed. Reasonability considerations, as applicable, may take into account property availability, site constraints, natural resource concerns, size, accessibility, and cost to make the property suitable for the project.

3. This analysis shall be performed regardless of whether or not the applicant has ownership or lease agreements to a preferred property or route.

² https://mde.maryland.gov/programs/water/TMDL/WaterQualityStandards/Documents/Tier-II-Forms/TierII_NoDischargeAnalysis_Form.pdf

Tier II Minimization Alternative Analysis Form V1.2:³

1. Code of Maryland Regulations (COMAR) 26.08.02.04-2 (G(3)) states that "If the Department determines that the alternatives that do not require direct discharge to a Tier II water body are not cost effective, the applicant shall: (a) Provide the Department with plans to configure or structure the discharge to minimize the use of the assimilative capacity of the water body".

2. This form helps to ensure that water quality impacts due to the proposed project are comprehensively identified and minimized.

3. To demonstrate that appropriate minimization practices have been considered and implemented, applicants must identify any minimization practices used when developing the project, calculate major Tier II resource impacts, consider alternatives for impacts, and adequately justify unavoidable impacts.

Tier II Mitigation Analysis Form V1.0:4

1. Code of Maryland Regulations (COMAR) 26.08.02.04-2 (G(3)) states that "If the Department determines that the alternatives that do not require direct discharge to a Tier II water body are not cost effective, the applicant shall: (a) Provide the Department with plans to configure or structure the discharge to minimize the use of the assimilative capacity of the water body".

2. No net change in Tier II water quality is the overarching goal of the Tier II Review, and mitigation is an essential part of the analysis process to reduce cumulative degradation prior to justification of unavoidable impacts.

3. This form helps to ensure that alternatives to mitigate or offset unavoidable impacts to Tier II watersheds and streams are identified and properly implemented.

4. Mitigation and offsets are required before MDE can evaluate any social and economic justifications.

³ https://mde.maryland.gov/programs/water/TMDL/WaterQualityStandards/Documents/Tier-II-Forms/TierII_Minimization_Form.pdf

⁴ https://mde.maryland.gov/programs/water/TMDL/WaterQualityStandards/Documents/Tier-II-Forms/TierII_Mitigation_Form_v1.0.pdf

Construction Stormwater Antidegradation Checklist - Version 1.3:5

1. To complete the checklist, applicants are required to coordinate with the County or appropriate approval authority when developing construction plans and stormwater management plans.

2. Applicants are required to provide this form when seeking a NOI/DOI for coverage under the General Permit for Stormwater Associated with Construction.

3. Applicants are required to submit a Tier II Letter of Completion before coverage under the General Permit for Stormwater Associated with Construction is granted.

Beaverdam Creek 2, which is located within the vicinity of the Project, has been designated as a Tier II stream. The Project is within the Catchment (watershed) of the segment. (See attached map).

Currently, there is assimilative capacity in this watershed; therefore at this time, no detailed social and economic justification is needed.

Planners should be aware of legal obligations related to Tier II waters described in the Code of Maryland Regulations (COMAR) 26.08.02.04 with respect to current and future land use plans. Information on the Antidegradation Policy can be obtained online at: https://dsd.maryland.gov/regulations/Pages/26.08.02.04.aspx

and Tier II Waters are located at https://dsd.maryland.gov/regulations/Pages/26.08.02.04-2.aspx

Planners should also note as described in the Code of Maryland Regulations (COMAR) 26.08.02.04-2(B), "Compilation and Maintenance of the List of High Quality Waters", states that "When the water quality of a water body is better than that required by water quality standards to support the existing and designated uses, the Department shall list the water body as a Tier II water body. *All readily available information may be considered to determine a listing. The Department shall compile and maintain a public list of the waters identified as Tier II waters.*"

Additional Tier II resources are available on the Maryland's High Quality Waters (Tier II) website:

⁵ https://mde.maryland.gov/programs/water/TMDL/WaterQualityStandards/Documents/Tier-II-Forms/Antidegradation-Checklist.pdf

https://mde.maryland.gov/programs/water/tmdl/waterqualitystandards/pages/antidegradation_po_licy.aspx.

The public list is available in PDF from the following MDE website: <u>http://mde.maryland.gov/programs/Water/TMDL/WaterQualityStandards/Documents/Tier_II_Upd</u> <u>ates/Antidegradation-Tier-II-Data-Table.pdf</u>.

The interactive Tier II webmap is located at the following website: (https://mdewin64.mde.state.md.us/WSA/TierIIWQ/index.html).

Direct any questions regarding the Antidegradation Review to Angel Valdez via email at <u>angel.valdez@maryland.gov</u>, or by phone at 410-537-3606.



MD20231113-0881

12/1/2023, 2:24:08 PM

MD_ParcelBoundaries - Parcel Boundarie	38
Tier II AC Catchments 2022	

- Assimilative Capacity Remaining
- No Assimilative Capacity Remaining
- Tier II Stream Segments 2022
- Tier II Baseline Stations 2022
- Maryland County Boundaries

		1:29,34	1
0	0.23	0.45	0.9 mi
0	0.38	0.75	1.5 km

Earthstar Geographics Creator: Maryland Department of the Environment, Water and Science Administration (MDE WSA) MDE



Wes Moore, Governor Aruna Miller, Lt. Governor Josh Kurtz, Secretary David Goshorn, Deputy Secretary

December 29, 2023

Ms. Juliet Healy USACE Baltimore District 2 Hopkins Plaza Baltimore, MD 21201

RE: Environmental Review for BEP Supplemental EA for Traffic and Utility Mitigation, Prince George's County, Maryland

Dear Ms. Healy:

The Wildlife and Heritage Service has determined that there are the following areas of potential concern for impacts to rare, threatened and endangered species:

For areas of the proposed traffic improvements as shown on your map, there is overlap with Beaverdam Creek, part of which is designated as a Nontidal Wetland of Special State Concern. Nontidal Wetlands of Special State Concern are regulated, along with their 100-foot upland buffers, as such by Maryland Department of the Environment. Your project may need review by Maryland Department of the Environment for any necessary permits associated with Beaverdam Creek. This stream system is known to support occurrences of a variety of rare, threatened and endangered odonates, fish and plants.

In addition, our remote analysis suggests that the forested area on this property contains Forest Interior Dwelling Species (FIDS) habitat, especially for birds. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the Eastern United States. The declines in FIDS populations have been attributed in part to the loss and fragmentation of forests due largely to urbanization, agriculture, and some forest management practices. The key to maintaining suitable breeding habitat for FIDS, and halting or reversing their declines, is the protection of extensive, unbroken forested areas throughout the region. The conservation of FIDS habitat throughout Maryland is strongly encouraged by the Wildlife and Heritage Service.

If the project changes in the future such that the limits of proposed disturbance or overall site boundaries are modified, please provide us with revised project maps and we will provide you with an updated evaluation. Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at <u>lori.byrne@maryland.gov</u> or at (410) 260-8573.

Sincerely. Louia. Bym

Lori A. Byrne, Environmental Review Coordinator Wildlife and Heritage Service MD Dept. of Natural Resources

From:	Healy, Juliet M CIV USARMY CENAB (USA)
To:	Lili Kolluri
Cc:	Marisa Wetmore
Subject:	FW: BEP-BARC- Roadways Improvement- Continuing Section 106 of the NHPA Consultation- Effect Determination, Prince Georges County, MD
Date:	Friday, March 15, 2024 10:19:26 AM
Attachments:	image001.png

Please include with the Appendices

Juliet Healy Ecologist USACE Baltimore District, Planning Division Juliet.M.Healy@usace.army.mil 410-430-7022 (cell)

From: Free, Stephanie <stephanie.free@ncpc.gov>

Sent: Friday, March 15, 2024 8:47 AM

To: Falls, Eva E CIV USARMY CENAB (USA) < Eva.E.Falls@usace.army.mil>

Cc: Wetmore, Marisa L CIV USARMY CENAB (USA) <Marisa.L.Wetmore@usace.army.mil>; Davis Charles (Charles.Davis@bep.gov) <Charles.Davis@bep.gov>; Ozgar, Carrie A CIV USARMY CENAB (USA) <Carrie.A.Ozgar@usace.army.mil>; Healy, Juliet M CIV USARMY CENAB (USA) <Juliet.M.Healy@usace.army.mil>

Subject: [Non-DoD Source] RE: BEP-BARC- Roadways Improvement- Continuing Section 106 of the NHPA Consultation- Effect Determination, Prince Georges County, MD

Eva,

Thank you for sharing this determination of no adverse effect related to the BEP roadway improvements. I have reviewed the materials with NCPC's Historic Preservation Officer, and we do not see any issues. We are glad to see that archaeological studies were completed in the LODS areas, and that MHT had signed off on them as recently as December.

Thank you,

Stephanie Free, PLA | Urban Planner Urban Design & Plan Review Division National Capital Planning Commission 401 9th St. NW, Suite 500 | Washington, DC 20004 Direct: 202.482.7209 | Main: 202.482.7200 stephanie.free@ncpc.gov | Website



From: Falls, Eva E CIV USARMY CENAB (USA) < Eva.E.Falls@usace.army.mil>

Sent: Thursday, March 14, 2024 1:59 PM

To: Free, Stephanie <<u>stephanie.free@ncpc.gov</u>>

Cc: Wetmore, Marisa L CIV USARMY CENAB (USA) <<u>Marisa.L.Wetmore@usace.army.mil</u>>; Davis Charles (<u>Charles.Davis@bep.gov</u>) <<u>Charles.Davis@bep.gov</u>>; Ozgar, Carrie A CIV USARMY CENAB (USA) <<u>Carrie.A.Ozgar@usace.army.mil</u>>; Healy, Juliet M CIV USARMY CENAB (USA) <<u>Juliet.M.Healy@usace.army.mil</u>>

Subject: BEP-BARC- Roadways Improvement- Continuing Section 106 of the NHPA Consultation-Effect Determination, Prince Georges County, MD

You don't often get email from eva.e.falls@usace.army.mil. Learn why this is important

Good afternoon,

On behalf of the Bureau of Engraving and Printing (BEP), please see the attached 'no adverse effect to historic properties' determination for the proposed undertaking. If you have any questions or concerns, the team is available to discuss those with you.

Thank you for your time,

Eva

Eva Falls, MA, RPA Cultural Resources Program Manager USACE Baltimore <u>Eva.e.falls@usace.army.mil</u> 252-560-6024, mobile

202401413



3

DEPARTMENT OF THE ARMY BALTIMORE DISTRICT, CORPS OF ENGINEERS 2 HOPKINS PLAZA BALTIMORE, MARYLAND 21201

March 14, 2024

Beth Cole Administrator, Project Review and Compliance Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032 beth.cole@maryland.gov

SUBJECT: Section 106 Consultation Effect Determination for the Traffic and Utility Mitigation for the Replacement Currency Production Facility (CPF) by the Bureau of Engraving and Printing (BEP) at Beltsville Agricultural Research Center (BARC) in Prince George's County, MD

Dear Ms. Cole:

On behalf of BEP, we are writing to your office to continue consultation in accordance with Section 106 of the National Historic Preservation Act for the proposed undertaking for utility and traffic mitigation by BEP for the replacement CPF at the U.S. Department of Agriculture's (USDA) BARC.

Though this is a complex undertaking with several parts, BEP has determined that the proposed undertaking will have no adverse effect on historic properties. A complete explanation of this reasoning is provided in Enclosure 1. While BEP is the lead federal agency, USDA and NPS have concurred with this determination as well. BEP is seeking your concurrence with its effect determination and appreciates your review and comments on the proposed undertaking. If you would like to have call to discuss the project in more detail, BEP is happy to schedule a meeting for all the consulting parties.

If changes are made to the area of potential effect (APE) or the proposed undertaking, BEP will provide that information to your office and will reopen consultation. Questions and comments can be directed to Eva Falls, USACE Cultural Resources Program Manager, at eva.e.falls@usace.army.mil or via phone at 410-962-4458 or to Charles Davis, BEP Program Manager, at Charles.Davis@bep.gov or via phone at 202-578-8507.

Sincerely,

OZGAR.CARRIE. Digitally signed by 0ZGAR.CARRIE. 02GAR.CARRIE.A.1380557840 0400 02400

Carrie Ozgar USACE Program Manager

Enclosures

The Maryland Historical Trust has determined that this undertaking will have no adverse effect on historic properties. de

3648APPENDIX C:3649MITIGATION MEASURES TABLE

Impact Topic	Mitigation Measures
Land Use	• Implement Environmental Protection Measures (EPMs) listed under Topography and Soils, Noise, and Transportation to reduce fugitive dust, construction noise, and traffic disruptions near construction sites respectively, which could indirectly affect adjacent land uses.
Topography and Soils	• Obtain a <i>Maryland General Permit for Stormwater Associated with Construction Activity</i> to manage soil erosion, sedimentation, and compaction associated with construction of the Proposed Action.
	• Prepare sedimentation and erosion control plan and implement best management practices (BMPs) consistent with Maryland Department of the Environment's (MDE) current <i>Standards and Specifications for Soil Erosion and Sediment Control</i> (2011).
	• Revegetate temporarily disturbed areas as soon as possible to minimize erosion and sedimentation.
Noise	• Prepare and submit a noise-suppression plan to Prince George's County before construction, which identifies the most appropriate and reasonably available noise-suppression equipment, materials, and methods to reduce noise levels to acceptable levels during construction.
	• Coordinate with the U.S. Department of Agriculture regarding anticipated noise levels for Beltsville Agricultural Research Center facilities throughout the construction phase to ensure noise impacts to on-site staff are maintained at acceptable Occupational Safety and Health Administration (OSHA) levels.
	• Require construction workers to wear appropriate protective gear during loud activities in accordance with OSHA safety requirements to prevent hearing damage or other adverse impacts.
	Conduct work on weekdays during standard daylight working hours.
Air Quality	• Comply with MDE's vehicle idling requirements by turning off equipment and vehicles when not in use.
	• Use ultra-low sulfur diesel (ULSD), propane, or natural gas as a fuel source in equipment and vehicles to the extent possible to minimize carbon dioxide (CO ₂) and sulfur dioxide (SO ₂) emissions.
	• Use dust palliatives to minimize and control fugitive dust emissions.
	• Use Tier 4 compliant engines and maintain motorized equipment in good working order according to manufacturer's recommendations.
Climate Change and Greenhouse Gas	• Comply with MDE's vehicle idling requirements by turning off equipment and vehicles when not in use.
	• Use ULSD, propane, or natural gas as a fuel source in equipment and vehicles to the extent possible to minimize CO ₂ and SO ₂ emissions.
	• Ensure water application does not increase erosion or result in increased down- gradient sedimentation of waterways.
	• Locate equipment and staging zones as far as practicable from sensitive receptors such as residences, schools, and childcare facilities.

Impact Topic	Mitigation Measures
Water Resources	• Obtain and adhere to appropriate permits (or letters of exemption) from the MDE and U.S. Army Corps of Engineers to comply with Sections 404/401 of the Clean Water Act (CWA) and comply with all BMPs established through this consultation process.
	• Obtain a Maryland General Permit for Stormwater Associated with Construction Activity to manage stormwater associated with construction of the Proposed Action. As more than 1 acre of land would be disturbed, Bureau of Engraving and Printing (BEP) would prepare and adhere to a state-approved erosion and sediment control plan and submit a Notice of Intent to meet the requirements of the federal National Pollutant Discharge Elimination System program. BEP would also manage stormwater discharges and maintain water quality through compliance with existing Total Maximum Daily Loads. Adherence to these requirements would ensure that runoff from the Project Area during construction would have no potential to further degrade water quality in receiving surface water bodies located downstream in the region of influence.
	Comply with Maryland Tier II Antidegradation Review policies.
	• Comply with Maryland's Erosion and Sediment Control Regulations, Stormwater Management Regulations, the Maryland Stormwater Management and Erosion & Sediment Control Guidelines for State and Federal Projects and associated technical memoranda.
	• Demarcate the construction limits of disturbance (LOD) in the field to prevent encroachment on unpermitted surface water resources.
	• When excavating below the groundwater table, incorporate measures that minimize potential impacts to local shallow groundwater, including dewatering these areas, preventing discharge of any water potentially contaminated during the construction/demolition process, and restoring sites to natural subsurface conditions prior to construction.
	• If not already required through the federal and/or state wetland permitting processes, mitigate wetland fills through on-site or off-site replacement, purchase of wetland mitigation bank credits, or payment of in-lieu fee.
Biological Resources	• Comply with the applicable provisions of the CWA, Section 438 of the Energy Independence and Security Act, and Executive Order 13508 to control and manage erosion and minimize discharge, such as the preparation of a site-specific erosion and sediment control plan and incorporation of green infrastructure and low impact development design features and techniques.
	• Use only native species in landscaping and revegetation techniques to prevent the introduction and proliferation of invasive species.
	• Limit or avoid site clearance activities (e.g., tree removal) within the migratory bird nesting season (i.e., May 1 to September 10) to the extent possible.
	 Apply conservation measures identified through consultation following the U.S. Fish and Wildlife Service (USFWS) Interim Guidance Framework for the northern long-eared bat (NLEB), valid through April 1st, 2024, to reduce potential impacts to the NLEB. These measures may include avoiding tree removal activities within the active season (April 1- Nov 14). There is currently no USFWS guidance for the tricolored bat; however, should the species be listed, BEP would follow applicable USFWS guidance.
Cultural Resources	• Implement an Inadvertent Discovery and Mitigation Plan.

Impact Topic	Mitigation Measures
	• Place construction fencing along the LOD for the Edmonston Road work to protect the remaining portions of the sites.
	• A trained archaeologist should be on site during ground disturbing activities.
	• BEP should continue ongoing coordination and consultation with Maryland Historical Trust under Section 106.
Aesthetics and Visual Resources	Conduct work during standard daylight working hours.
Socioeconomics	• No applicable mitigation measures.
Environmental Justice (EJ)	• Minimization and mitigation measures planned for all resources to limit or prevent adverse environmental impacts ensure that the communities with EJ concerns would not experience disproportionate or adverse human health or environmental effects.
	• Hold public meeting with outreach to communities with EJ concerns to answer questions, record concerns, and determine if project design or agency actions can address them.
Protection of Children	• Maintain a safe perimeter around construction work zones and restrict access using signage and barricades.
	• Follow mitigation measures for Hazardous and Toxic Materials and Waste and Health and Public Safety.
Transportation	• Ensure that the construction of roadway improvements does not prohibit normal traffic flow; should temporary road closures be required, schedule these to occur during low volume traffic periods, such as at night.
Utilities	• Provide advance notice to potentially affected end users of any anticipated utility disruption to allow for adequate planning.
	• Obtain all required permits before utility work commences and adhere to permit conditions.
Hazardous and Toxic Materials and Waste	• Proper use and storage of hazardous materials, including the presence of spill containment kits at construction sites.
Health and Public Safety	Comply with OSHA safety regulations and SHA Work Zone Safety and Mobility Policy.

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3650	APPENDIX D:
3651	WETLAND DELINEATION AND FOREST STAND DELINEATION
3652	REPORTS
WETLAND DELINEATION REPORT Bureau of Engraving and Printing Beltsville Agricultural Research Center Traffic Mitigation Beltsville, Maryland



Prepared for:

Bureau of Engraving and Printing Washington, DC

Prepared by:

U.S. Army Corps of Engineers Baltimore District, Planning Division 2 Hopkins Plaza Baltimore, Maryland 21201

December 2023

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1 INTRODUCTION

1.1 STUDY PURPOSE

The U.S. Army Corps of Engineers (USACE), Baltimore District, Planning Division prepared this report at the request of the United States Department of the Treasury, Bureau of Engraving and Printing (BEP), to identify and delineate waters of the U.S. (WUS) (i.e., wetlands and streams) found within the proposed site boundaries.

BEP proposes to construct and operate a new currency production facility (CPF) within the existing Beltsville Agricultural Research Center (BARC) in Prince George's County, Maryland. The new facility would replace BEP's current CPF located in Washington, D.C., with a more modern facility that meets production needs.

This report follows a 2019 wetland delineation conducted as part of the Environmental Impact Statement (EIS) for the Proposed Replacement CPF. To address traffic and utility measures identified since the EIS was completed, a supplemental Environmental Assessment (EA) is being prepared. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS. (Figure 1). In addition, current access to two wells located just east of Poultry Road would be blocked by the new CPF, so a road has been proposed to access these wells.

The study purpose was achieved through (1) collection and synthesis of existing wetlands and waters of the U.S. information; (2) a site visit to conduct routine wetland delineations as prescribed in the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*: Atlantic and Gulf Coastal Plain Region; and (3) preparation of a report of findings.

1.2 STUDY AREA

The study area is approximately 93 acres and is in Beltsville, Maryland. The areas described below were surveyed for the traffic mitigation action that proposes to improve the intersections as well as construct a well access road (Figure 1, Appendix A). The first project area runs along Edmonston Road beginning just north of Powder Mill Road, running south to Sunnyside Avenue, and encompasses the intersections of Edmonston Road and Powder Mill Road, Edmonston Road and Beaver Dam Road, and Edmonston Road and Sunnyside Avenue. This Edmonston Road project area amounts to approximately 32 acres. A large, forested wetland system runs along the western edge of Edmonston Road, eventually draining into Indian Creek (USFWS, 2015). BARC agricultural fields lie to the east of Edmonston Road, the Sanitary Sewer Alternative Two runs northeast through these fields, connecting to the laydown area. Another portion of the project area includes 16 acres of land along Powder Mill Road expanding north, in the vicinity of Animal Husbandry Road (Figure 6, Appendix A). This area primarily consists of mowed and maintained lawn with no previously mapped wetlands.

The third project area is a 4-acre area surrounding the intersections of Powder Mill Road and the Baltimore-Washington Parkway and Powder Mill Road and Springfield Road. This area is primarily mowed, with forest on the outskirts and no known wetlands.

The fourth project area is a 1.8-acre Sanitary Sewer Alternative One area north of Odell Road and northeast of Poultry Road. This area primarily consists of a small, forested section on the north end and mowed lawns associated with occupied housing towards the south (Figure 7, Appendix A). Eighteen (18) specimen trees were identified within traffic mitigation areas. All other specimen trees were documented outside of traffic mitigation areas.

The geology at the proposed sites consists of Lower Cretaceous sediments of the Potomac Group, which consists of the Patuxent, the Arundel, and the Patapsco Formations, respectively decreasing in age. The Patuxent and Patapsco Formations are composed primarily of sand and gravel and comprise the most prevalent water bearing aquifers in Prince George's County. The Arundel is mostly clay and creates artesian conditions in the underlying Patuxent Formation in some locations.

2 METHODS

2.1 DATA COLLECTION AND ANALYSIS

Existing wetland information and GIS data was collected from various sources for preliminary analysis and identification of potential wetland areas within the study area. Sources of data include: U.S. Geological Survey (USGS) topographic quadrangles (USGS, 1977), U.S. Department of Agriculture (USDA) web soil survey (USDA, 2011), and U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) maps (including aerial photography) (USFWS, 2015).

2.2 WETLAND DELINEATION

The wetland delineation was performed pursuant to the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region*, as Federal and state agencies require use of these documents for jurisdictional investigations. The delineation field work was conducted April through May 2021, with additional surveys in August and September 2023. All delineations were conducted by a team from USACE, Baltimore District, Planning Division. Data points were completed for each wetland. Wetland boundaries were marked with consecutively numbered pink survey flagging. Photographs of streams and wetlands are included in Appendix C.

2.3 GLOBAL POSITIONING SYSTEM (GPS) METHODOLOGY

The field survey was completed using a Trimble TDC 150 handheld Global Positioning System (GPS). The objective of the GPS survey was to collect location data for each wetland delineation flag and soil sample point. This survey horizontally references the North American Datum of 1983 (NAD83). This data was then transferred into ArcGIS Pro 3.0.1 for analysis and mapping.

3 RESULTS

3.1 GENERAL WETLAND FINDINGS

Wetlands are defined by the presence of three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. Methods for determining if each of the three parameters are met are described in the 1987 Corps of Engineers Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region.

Preliminary analysis of topographic maps, soils and NWI wetland mapping indicated the presence of wetlands and streams within the study area, specifically in the first project area along Edmonston Road. Elkton silt loam, listed as hydric on the hydric soils list (USDA, 2015) is associated with coastal plains. The Edmonston Road project area touches areas that are deemed regulatory floodways on its eastern border (Zone AE). The remaining project areas are areas of minimal flood risk (Zone X) according to the FEMA flood map (FEMA, 2020).

The USACE team placed numbered flags along the limits of six wetlands and six WUS between three project areas: Edmonston Road, Powder Mill Road and Animal Husband Road Area, and the Sanitary Sewer Alternative 1/Odell Road area. No wetlands were identified in the project area at Powder Mill Road and the Baltimore-Washington Parkway. The flags were located using GPS survey methods. The wetland areas within LODs amount to over 13 acres of wetlands (Tables 3-2 and 3-3, Section 3.2). Wetland 1 was not delineated in its entirety. The wetland extended well beyond the limit of disturbance (LOD) bordering the intersection; therefore, solely the edge of the wetland bordering the road was delineated. The edge furthest away from the road was not delineated. The map of wetlands delineated at the proposed traffic mitigation and well access sites are shown in Figures 5, 6, and 7 in Appendix A.

3.1.1 VEGETATION

For purposes of wetland identification, many plants are assigned an indicator status by the USFWS, which is useful for determining the probability of their occurrence in wetlands. Wetlands delineated within the study area were dominated by plants normally expected to occur within wetlands. No plant species observed on the site are listed as rare, threatened, or endangered at either a Federal or state level.

3.1.2 GENERAL SOIL CHARACTERISTICS

The USDA web soil survey (USDA, 2015) identifies 15 soil series within the study area, which are shown in Table 3-1 (see Figures 2,3 and 4 in Appendix A). The table lists the soil name, the drainage class, and hydric status.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils,

under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

Drainage class refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized: excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained.

Soil Name	Map Symbol	Drainage Class	Hydric	Parcel Present
Christiana-Downer complex, 10 to 15 percent slopes	CcD	Moderately well drained	No	2,4
Christiana-Downer complex, 5 to 10 percent slopes	CcC	Moderately well drained	No	1,2,3,4
Christiana-Downer-Urban land complex, 15 to 25 percent slopes	CdE	Moderately well drained	No	2
Christiana-Downer-Urban land complex, 5 to 15 percent slopes	CdD	Moderately well drained	No	2
Elkton silk loam, 0 to 2 percent slopes	EkA	Poorly Drained	Yes	4
Fallsington sandy loams, 0 to 2 percent slopes, Northern Coastal Plain	FaaA	Poorly drained	Yes	3
Hammonton loamy sand, 0 to 2 percent slopes	HaA	Moderately well drained	No	1
Longmarsh and Indiantown soils, frequently flooded	LY	Very poorly drained	Yes	3
Russett-Christiana complex, 0 to 2 percent slopes	RcA	Moderately well drained	No	1,3,4
Russett-Christiana complex, 2 to 5 percent slopes	RcB	Moderately well drained	No	1,2,3,4
Russett-Christiana Urban land complex, 0 to 5 percent slopes	RuB	Moderately well drained	No	1,2,3,4
Sassafras-Urban land complex, 5 to 15 percent slopes	SnD	Well drained	No	1
Udorthents, highway, 0 to 65 percent slopes	UdaF	Well drained	No	3
Udorthents, reclaimed gravel pits, 0 to 5 percent slopes	UdgB	Well drained	No	1
Zekiah and Issue soils, frequently flooded	ZS	Poorly drained	Yes	1

Table 3-1. Soils at BEP Traffic Mitigation Sites

3.1.3 HYDROLOGY

Evidence of wetland hydrology was observed in the areas identified as wetlands during the site investigation, and included water-stained leaves, algal matt or crust, oxidized rhizospheres along living roots, surface water, saturation, sparsely vegetated concave surface, and inundation visible on aerial imagery.

3.2 STREAMS

The dominant hydrologic feature is Indian Creek, which flows south through Wetland 1, following alongside Edmonston Road. The creek is not within the LOD but runs through Wetland 1 and effects the hydrology of the wetland. Indian Creek eventually flows into the Anacostia River, then the Potomac River, and finally the Chesapeake Bay. It is classified as a riverine lower perennial with an unconsolidated bottom of cobble/gravel and sand (R2UB1/2). The northernmost intermittent stream (WUS-1) flows south through Wetland 3, under Powder Mill Road and into Wetland 1. It is classified as a riverine intermittent streambed with a cobble-gravel/sand bottom (R4SB3/4). There is also a culvert with intermittent water on the northeast corner of the Edmonston Road and Powder Mill Road intersection that flows under the intersection, splitting into two streams, directing water to the northwest corner of the intersection (creating Wetland 2) and to the

southwest corner (creating WUS-3). WUS-2 drains southwest from Wetland 2 underneath Powder Mill Road and into Wetland 1. It is classified as a riverine intermittent streambed with a sand/mud bottom (R4SB4/5). WUS-3 drains from the northeast section of the Edmonston Road and Powder Mill Road intersection flowing southwest and into Wetland 1. It is classified as a riverine intermittent streambed with a sand/mud bottom (R4SB4/5). WUS-4 is found on the well access site near Poultry Road and Powder Mill Road. The delineated portion for this report flows west into an off-site 2019 delineated intermittent stream. WUS-4 is classified as a riverine intermittent streambed with a sand/mud bottom (R4SB4/5). WUS-5 and WUS-6 are classified as riverine lower perennial with unconsolidated bottoms of cobble/gravel and sand (R2UB1/2). These are found in the Sanitary Sewer Alternative 1/Odell Road area. WUS-6 flows originates off-site and flows east to west, eventually into Indian Creek. WUS-5 flows north to east, flowing into WUS-6.

Table 3-2. Streams at BEP Traffic Mitigation Sites									
Stream Reach	Classification	Linear Feet (LF) within the site	Average Width (feet)	Connection to Navigable Waters					
WUS-1	R4SB3/4	208	8	Flows to Indian Creek, Anacostia River, Potomac River to Chesapeake Bay					
WUS-2	R4SB4/5	360	3-4	Flows to Indian Creek, Anacostia River, Potomac River to Chesapeake Bay					
WUS-3	R4SB4/5	110	5-6	Flows to Indian Creek, Anacostia River, Potomac River to Chesapeake Bay					
WUS-4	R4SB4/5	130	3-4	Flows to the Anacostia River, Potomac River to Chesapeake Bay					
WUS-5	R2UB1/2	163	3-4	Flows to WUS-6					
WUS-6	R2UB1/2	177	3-4	Flows to Indian Creek					
Indian Creek	R2UB1/2	N/A	15	Flows to Anacostia River, Potomac River to Chesapeake Bay					
	Total	1,148 LF							

Descriptions are provided in Table 3.2.

3.3 WETLANDS

Eight (8) wetlands were delineated within the proposed project areas, amounting to approximately 14 acres. Wetland 6 has been removed from the delineation and mapping because it is no longer located within the proposed LOD and so is not included in the acreage total. Wetland data forms are in Appendix B.

Plants found in and around the wetlands are classified by a regional wetland indicator status based on USDA's National Wetland Plant List. Indicator categories found in the wetlands on this site include:

FAC: Facultative Hydrophyte - Sometimes found in wetlands (34-66% frequency)
FACW: Facultative Wet Hydrophyte - Usually found in wetlands (66-99% frequency)
OBL: Obligate Hydrophyte - Almost always found in wetlands (99+% frequency)

NI: No Indicator – USDA has not assigned an indicator status for the species

Wetland 1 is a large, forested wetland that extends beyond the LOD of this project to the southwest. The edge of the wetland bordering Edmonston Road and some of Sunnyside Avenue and Powder Mill Road was delineated. The borders outside the LOD were not delineated; the westernmost border in Figure 5 was estimated for mapping purposes. The wetland may extend beyond this estimated western border. The larger wetland system flows south into Indian Creek, spanning over 100 acres total. It is classified as a palustrine forested wetland with broad-leaved deciduous vegetation and a seasonally flooded/saturated water regime (PFO1E). The larger wetland system contains other classifications; however, these are beyond the LOD of this study. Dominant vegetation includes blackgum (Nyssa sylvatica) and red maple (Acer rubrum) in the canopy, beech (Fagus grandifolia), blackgum, white oak (Quercus alba), white fringe tree (Chionanthus virginicus), American holly (Ilex verticillata), and Tatarian honeysuckle (Lonicera tatarica) in the understory, and Japanese stiltgrass (Microstegium vimineum), common greenbrier (Smilax rotundifolia), Virginia creeper (Parthenocissus quinquefolia), and Japanese honeysuckle (Lonicera japonica) in the herbaceous layer. The soil matrix was predominantly a sandy loam with a 10YR 2/2 color and redoximorphic concentrations in the matrix of 10YR 6/2 and 7.5YR 5/6. This chroma meets a depleted matrix hydric soil indicator.

Wetland 2 is classified as an excavated palustrine emergent wetland with persistent vegetation and a temporary flooded water regime (PEM1Ax). The dominant vegetation observed included red maple, tulip poplar (*Liriodendron tulipifera*), southern arrowwood (*Viburnum dentatum*), Tatarian honeysuckle, poison ivy (*Toxicodendron radicans*), fox grape (*Vitis labrusca*), and Virginia creeper. The soil matrix was a silt loam 10YR 4/2 with 2.5YR 5/4 redoximorphic features. This soil matrix met the depleted matrix hydric soil indicator.

Wetland 3 is classified as a palustrine forested wetland with broad-leaved deciduous vegetation and a seasonally flooded/saturated water regime (PFO1E). Wetland 3 drains into Wetland 1 via a culvert under Powder Mill Road. The dominant canopy species observed were red maple and pin oak (*Quercus palustris*). Dominant understory vegetation observed was red maple, sycamore (*Platanus occidentalis*), northern spicebush (*Lindera benzoin*), blackhaw (*Viburnum prunifolium*), creeping bent grass (*Agrostis stolonifera*), and common greenbrier. The soil matrix was primarily a 10 YR4/2 fine sandy loam with 7.5YR 4/4 redoximorphic features. The matrix meets the hydric soil indicator for a depleted matrix.

Wetland 4 is classified as a palustrine forested wetland with broad-leaved deciduous vegetation and a seasonally flooded/saturated water regime (PFO1E). Water from Wetland 4 drains west into Wetland 3 under a culvert, which then drains to Wetland 1. The dominant canopy species observed were willow oak (*Quercus phellos*), and red maple. The dominant understory vegetation consists of tulip poplar, sweetbay magnolia (*Magnolia virginiana*), creeping bentgrass, poison ivy, and common greenbrier. The soil matrix was predominantly a 10YR 4/2 sandy clay loam with redoximorphic features of 7.5YR 4/6 which meets the hydric soil criteria for a depleted matrix.

Wetland 5 is classified as a palustrine forested wetland with broad-leaved deciduous vegetation and a seasonally flooded/saturated water regime (PFO1E). Wetland 5 drains into Indian Creek. The canopy dominant species observed were beech and willow oak. The dominant understory species observed were ironwood (*Carpinus caroliniana*), northern spicebush, and skunk cabbage (*Symplocarpus foetidus*). The soil matrix was primarily a sandy clay loam with a 10YR 5/1 color with redoximorphic features of 7.5YR 4/6. These colors meet the hydric soil depleted matrix indicator.

Wetland 6 – Removed, No longer located within proposed LOD.

Wetland 7 is classified as a palustrine emergent wetland with persistent vegetation and a seasonally flooded/saturated water regime (PEM1E). The dominant vegetation observed was creeping bentgrass (*Agrostis stolonifera*) and reed canary grass (*Phalaris arundinacea*). The soil matrix was predominantly a 10YR 4/2 fine sandy loam with 7.5YR 4/6 redoximorphic features in the pore linings. These soils met the depleted matrix hydric soil indicator.

Wetland 8 is classified as a palustrine emergent wetland with persistent vegetation and a seasonally flooded/saturated water regime (PEM1E). The dominant vegetation observed was broad-leaved cattail (*Typha latifolia*) and soft rush (*Juncus effusus*). A few bald cypress (*Taxiodum distichum*) were growing on the perimeter. The soil matrix was predominantly a 10YR 4/2 sandy loam with 10YR 4/3 redoximorphic features. These soils met the depleted matrix hydric soil indicator.

Descriptions of each wetland are provided in Table 3.3. A Cowardin classification key can be found in Appendix D.

Wetland	Cowardin Classification	Total Acreage	Data Point	Connection to Navigable Waters
Wetland 1	PFO1E	9.8	DP-107 and 113	Drains to Indian Creek
Wetland 2	PEM1Ax	0.07	DP-111	Northwest corner of Edmonston and Powder Mill intersection. Drains southwest to Wetland 1 via WUS-3.
Wetland 3	PFO1E	0.36	DP-110	Just west of Wetland 4, north of Powder Mill Road. Drains south to Wetland 1 via WUS-1
Wetland 4	PFO1E	0.04	DP-105	Centered between Wetland 3 and 2. Drains west to Wetland 3
Wetland 5	PFO1E	3.24	DP-108	Southern portion of Traffic Mitigation Site, drains to Indian Creek
Wetland 6		Removed -	No longer lo	cated within the proposed LOD
Wetland 7	PEM1E	0.14	DP-8	Drains to WUS-4
Wetland 8	PEM1E	0.05	DP-10	Drains to WUS-4
	Total	13.70 Acres		

 Table 3-3. Wetlands at BEP Traffic Mitigation Sites

4 CONCLUSIONS

Eight (8) wetlands and six (6) stream reaches were delineated by USACE, Baltimore District, Planning Division, within the proposed boundary of BEP traffic mitigation sites along Powder Mill Road, Odell Road, and Edmonston Road in Beltsville, Maryland. The delineation was performed April through May 2021, with additional surveys in August and September 2023. Wetland 6 has since been removed due changes in the proposed LOD. The jurisdiction of the wetlands included in this report have not been verified by USACE-Regulatory Branch or Maryland Department of the Environment (MDE). Any future design or construction that may impact these wetlands or the wetland buffers will require coordination with the USACE and MDE, specifically regarding potential permitting actions within Section 404, Section 10, and all other potential permitting actions.

5 REFERENCES

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6 ACRONYMS AND ABBREVIATIONS

Beltsville Agricultural Research Center
Bureau of Engraving and Printing
Currency Production Facility
Environmental Impact Statement
Facultative Hydrophyte
Facultative Wet Hydrophyte
Global Positioning System
Limit of Disturbance
Maryland Department of the Environment
North American Datum of 1983
No Indicator
National Technical Committee for Hydric Soils
National Wetland Inventory
Obligate Hydrophyte
U.S. Army Corps of Engineers
U.S. Department of Agriculture
U.S. Fish and Wildlife Service
U.S. Geologic Survey
Waters of the U.S.

APPENDIX A Figures



BEP Traffic and Utility Mitigation Vicinity Map 2023



0





Sanitary Sewer
Alternative 2







0.3 Miles













APPENDIX B Routine Wetland Data Forms

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	BEP Traff	ic Mitigation		City/Co	unty:	Prince G	eorge's	Sampling Date	: 04/05/2021
Applicant/Owner:	BARC			State:	MD		Sampling Point	: 100	
Investigator(s): Landform (hillslop	DRC/L be, terrace,	EJ		Section	, Towns	hip, Range	:		
etc.):		East Pasture	Local	relief (concave,	convex,	none):	Flat	Slope (%):	1-3
Subregion (LRR o	or MLRA):	LRR R	Lat:	39.033235		Long:	-76.877983	Datum	n: NAD83
Soil Map Unit Nar	ne: <u>Ch</u>	ristiana and Downer					NWI	classification:	UPL
Are climatic/hydro	logic cond	itions on the site typical for	this time o	f year?	Ye	s X	No	(If no, explain i	n Remarks)
Are Vegetation	, Soi	, or Hydrology	significa	antly disturbed?	Are "	Normal Cir	cumstances" presen	nt? Yes X	No
Are Vegetation	, Soi	, or Hydrology	naturall	y problematic?	(lf ne	eded, exp	lain any answers in f	Remarks.)	

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	x x	No No No	X	Is the Sampled Area within a Wetland?	Yes	_ NoX			
Remarks:	Remarks:									
Isolated area on bench above unnamed tributary to Beaver Dam Creek										

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; che	Surface Soil Cracks (B6)			
X Surface Water (A1)	Aquatic Fauna (B13)	X Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)		
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)		
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)		
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)		
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)		

Field Observations:											
Surface Water Present?	Yes	Х	No		Depth (inches):	1-2"					
Water Table Present?	Yes		No	Х	Depth (inches):						
Saturation Present?					-		Wetland Hydrology				
(includes capillary fringe)	Yes	Х	No		Depth (inches):	0"	Present?	Yes	Х	No	
Describe Recorded Data (s	tream g	gauge,	monit	oring	well, aerial photos,	previous insp	ections), if available:				
Remarks:											
Surface water perched on compacted subsoil											

VEGETATION (Five Strata) - Use scientific nam	es of plants.			Sampling Point: 100	
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet	:
1.				Number of Dominant Species	That
2.				Are OBL, FACW, or FAC:	3 (A)
3.					
4.				Total Number of Dominant St	pecies
5.				Across All Strata:	3 (B)
6.					(2)
		= Total Cover		Percent of Dominant Species	That
50% of total cover	:	20% of total cover:		Are OBL, FACW, or FAC:	<u>100</u> (A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index workshee	t:
1 Juncus effusus	25	Y	OBI	Total % Cover of:	Multiply by:
		<u> </u>	001		<u>iviuitipiy by.</u>
2. Phalaris arundinacea	15	Y	FACW	OBL species	x 1 =
3. Typha latifolia	5	N	OBL	FACW species	x 2 =
4. Periscaria pensylvanica	5	N	FACW	FAC species	x 3 =
5				FACU species	x 4 =
6					x 5 =
-	50	= Total Cover		Column Totals	(A)(B)
50% of total cover	. 25	20% of total cover	10		_ (1)
		- 20% 01 10181 00001.		Prevalence Index = B/A =	
Shrub Stratum (Plot Size: 20-foot radius plot)					
1				Hydrophytic Vegetation Ind	icators:
2				1 - Rapid Test for H	lydrophytic Vegetation
3.				X 2 - Dominance Tes	t is >50%
4.				3 - Prevalence Inde	x is ≤3.0¹
5.				Problematic Hydrop	hytic Vegetation ¹
6.					
		= Total Cover			
50% of total cover	:	20% of total cover:		(Explain)	
		-		¹ Indicators of hydric soil and we	atland hydrology must be
Herb Stratum (Plot Size: 10-foot radius plot)				F	
1				Definitions of Five Vegetati	on Strata:
·					
2				Tree - Woody plants, exclude	ng woody vines,
3 4		<u> </u>		(7.6 cm) or larger in diameter	at breast height (DBH).
5.				Sapling - Woody plants, excl	udina woodv vines.
6.		·		approximately 20 ft (6 m) or n than 3 in (7.6 cm) DBH.	hore in height and less
1					
8				Shrub – Woody plants, exclu	ding woody vines,
9				approximately 5 to 20 ft (1 to	o m) in neight.
10				Herb - All herbaceous (non-w	oody) plants, including
11				herbaceous vines, regardless	of size, <u>and</u> woody
		= Total Cover		3 ft (1 m) in beight	ess than approximately
50% of total cover	:	20% of total cover:		5 ht (1 hi) in height.	
		-		Woody vine - All woody vine	s, regardless of height.
Woody Vine Stratum (Plot Size: 20-foot radius plo	<u>ot)</u>				
1.					
2.					
3.				Remarks: (if observed, list mo	orphological
				adaptations below.)	
		- Total Cover			
E00/ of total action				Hydrophytic Yee	
50% of total Cover		20% of lotal cover:		Vegetation Present?	<u> </u>

Profile Desc	cription: (Descr	ibe to the	depth needed	d to doc	ument the in	dicator or c	onfirm the abse	ence of indicat	ors.)		
Matrix				Redox Features							
Depth	Color		Color								
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Texture		Rema	rks	
0-2	10YR 4/3	100					Clay loa	m			
2-10	10YR 5/4	70	10YR 2/1	10	С	М	Clay loa	m			
7.5 YR 5/			7.5 YR 5/8	10 C M							
					·						
¹ Type: C=Co	oncentration, D=	Depletion,	RM=Reduced	Matrix,	MS=Masked S	Sand Grains	. ² Location: PL=	⊧Pore Lining, M	=Matrix		
Hydric Soil Indicators:									Indicators for Problematic Hydric Soils ³ :		
Histosol (A1) Polyva					lue Below Surface (S8) (LRR S, T, U)			1 cm Muck (A9) (LRR O)			
Histic E	Histic Epipedon (A2)					Dark Surface (S9) (LRR S, T, U)			2 cm Muck (A10) (LRR S)		
Black H	Black Histic (A3)					y Mucky Mineral (F1) (LRR O)			Reduced Vertic (F18) (Outside MLRA 150A, B)		
Hydrogen Sulfide (A4) Loamy					y Gleyed Matrix (F2)			Piedmont Floodplain Soils (F19) (LRR P, S, T)			
Stratified Layers (A5) Deplete					ted Matrix (F3)			Anomalous Bright Loamy Soils (F20)			
Organic Bodies (A6) (LRR P, T, U)					x Dark Surface (F6)			(MLRA 153B)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Deplete					eted Dark Surface (F7)			Red Parent Material (TF2)			
Muck Presence (A8) (LRR U) Redox					x Depressions (F8)			Very Shallow Dark Surface (TF12)			
1 cm Muck (A9) (LRR P. T) Mari (F					(F10) (LRR U)			Other (Explain in Remarks)			
Depleted Below Dark Surface (A11) Depleted					ed Ochric (F1	1) (MLRA 1	51)		,		
Thick Dark Surface (A12)					langanese Masses (F12) (LRR O, P, T)			3 Indiantara	of hudrophytic yes	ustation and	
Coast Prairie Redox (A16) (MLRA 150A) Umbrid					ric Surface (F13) (LRR P, T, U)			wetland hydrology must be present, unless disturbed or problematic.			
Sandy Mucky Mineral (S1) (LRR O, S) Delta					a Ochric (F17) (MLRA 151)						
Sandy Gleyed Matrix (S4) Reduc					ed Vertic (F18	B) (MLRA 15	0A. 150B)				
Sandy Redox (S5) Piedm					nont Floodplains Soils (F19) (MLRA 149A)						
Stripped Matrix (S6) Anoma					lous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark S	u) <u> </u>					,,	,				
	(0) (1)	, ., .,	-,								
Restrictive	Layer (if observ	ved):									
					Hydric Soil Present?			Yes	No	х	
Depth (inches):											
-1 · (
Remarks:											
Soil is highly	compacted and	l appears t	o be partially f	II materi	al with high cl	ay content					
Project/Site:	BEP Traffic	c Mitigation		City/Cou	unty:	Prince G	eorge's	Sampling Date:	04/15/2021		
----------------------	----------------	--------------------------	--------------------	------------------	------------	-----------	-----------------	----------------------	------------		
Applicant/Owner:	BARC			State:	MD		Sampling P	oint: 101			
Investigator(s):	DRC/L	EJ		Section,	Township	o, Range:	: 				
Landform (hillslope	e, terrace, e	etc.): Slight slope	Local re	lief (concave, o	convex, no	one):	Concave	Slope (%): 1			
Subregion (LRR or	r MLRA):	LRR R	Lat:	39.034162		Long:	-76.877966	Datum:	NAD 83		
Soil Map Unit Nam	ne: <u>Chr</u>	istiana and Downer					1	NWI classification:	PEM		
Are climatic/hydrole	ogic condit	ions on the site typical	for this time of y	ear?	Yes	Х	No	(If no, explain in R	temarks)		
Are Vegetation	, Soil	, or Hydrology	significant	ly disturbed?	Are "No	ormal Cir	cumstances" pre	esent? Yes X	No		
Are Vegetation	, Soil	, or Hydrology	naturally p	problematic?	(If need	ded, expl	ain any answers	in Remarks.)			

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No		Is the Sampled Area within a Wetland?	Yes _	<u>x</u>	No
Remarks: Connected to wetland area north of	Powder N	1ill RD., cor	ntinues e	ond fence				

HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) X Surface Water (A1) Aquatic Fauna (B13) X Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Drainage Patterns (B10) Marl Deposits (B15) (LRR U) X Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) X Oxidized Rhizospheres along Living Roots (C3) Water Marks (B1) Dry-Season Water Table (C2) Presence of Reduced Iron (C4) Sediment Deposits (B2) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) X Water-Stained Leaves (B9) Sphagnum Moss (D8) (LRR T, U)

Field Observations:											
Surface Water Present?	Yes	Х	No		Depth (inches):	2"					
Water Table Present?	Yes		No	Х	Depth (inches):						
Saturation Present?					-		Wetland Hydrology				
(includes capillary fringe)	Yes	Х	No		Depth (inches):	1.5"	Present?	Yes	Х	No	
Describe Recorded Data (s	tream g	jauge,	monito	oring \	vell, aerial photos,	previous insp	ections), if available:				
Remarks:											
. to manife											

VEG	ETATION (Five Strata) - Use scientific name	s of plants.			Sampling Point:101
Tree	Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. 2. 3.					Number of Dominant Species That Are OBL, FACW, or FAC: (A)
4. 5. 6.					Total Number of Dominant Species Across All Strata:(B)
	50% of total cover:		= Total Cover 20% of total cover:	·	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
<u>Sapl</u>	ing Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.					<u>I otal % Cover or:</u> <u>Multiply by:</u>
2.					OBL species x 1 =
3.			<u></u>		FACW species x 2 =
4.					FAC species x 3 =
5.					FACU species x 4 =
6.			· ·		UPL species x 5 =
			= Total Cover		Column Totals: (A) (B)
	50% of total cover:		20% of total cover:		
Shru	h Stratum (Plot Size: 20-foot radius plot)				Prevalence Index = B/A =
	<u>b Stratum</u> (Flot Size. <u>20-100t radius plot)</u>				Hydrophytic Vogetation Indicators:
1.					
2.			·		1 - Rapid Test for Hydrophytic Vegetation
3.					X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.					Problematic Hydrophytic Vegetation ¹
6.					
			= Total Cover		(Evolein)
	50% of total cover:		20% of total cover:		(Explain)
					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb	<u>Stratum</u> (Plot Size: <u>10-foot radius plot)</u>				Definitions of Fire Venetation Otacts
1.	Juncus effusus	30	Y	OBL	Definitions of Five vegetation Strata:
2.	Phalaris arundinacea	15	Y	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
3. 4. 5.			· ·		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.
6. 7.					Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
8.					Herb - All herbaceous (non-woody) plants, including
9.					herbaceous vines, regardless of size, and woody
10.					plants, except woody vines, less than approximately 3 ft
11.			· ·		
		45	= Total Cover		Woody vine - All woody vines, regardless of height.
	50% of total cover:	22.5	20% of total cover:	9	
<u>Woo</u> 1.	dy Vine Stratum (Plot Size: <u>20-foot radius plot)</u>	<u>l</u>			
2. 3.			· ·		Remarks: (if observed, list morphological adaptations
			= Total Cover		Delow.)
	50% of total cover:		20% of total cover:		Hydrophytic Yes X No
					Vegetation Present?

SOIL

Profile Dese	cription: (Descr	ibe to the	depth neede	d to doc	ument the in	dicator or c	onfirm the al	bsence of indic	ators.)	
	Matrix	x		Redox	Features					
Depth	Color		Color		- 4		_		_	
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Text	ure	Re	emarks
0-2"	10YR 5/3	100					Clay l	oam		
2-10"	10YR 5/3	75	10YR 2/1	10	С	M	Clay l	oam		
			10YR 5/8	5	С	М				
¹ Type: C=Co	oncentration, D=	Depletion,	RM=Reduced	l Matrix, I	MS=Masked	Sand Grains	² Location: P	PL=Pore Lining,	M=Matrix	
Hydric Soil	Indicators:							Indicator	s for Problemati	c Hydric Soils ³ :
Histos	ol (A1)			Polvval	ue Below Su	rface (S8) (L	RR S. T. U)	1 cm Muc	k (A9) (LRR O)	
Histic I	Epipedon (A2)			Thin Da	ark Surface (S	59) (LRR S.	T. U)	2 cm Muc	k (A10) (LRR S)	
Black	Histic (A3)			Loamy	Mucky Miner	al (F1) (I RR	0)	Reduced	Vertic (F18) (Out	side MI RA 150A, B)
Hydroc	nen Sulfide (A4)			Loamy	Gleved Matri	x (F2)	•,	Piedmont	Floodplain Soils	
Stratifi	ed Lavers (A5)		X	Denlete	d Matrix (F3)	x (1 2)		Anomalou	is Bright Loamy	(110) (E20)
Organi	ic Bodies (A6) (I	RRPT	IN <u>- </u>	Redox	Dark Surface	(F6)		/ MI RA	153B)	
5 cm M	Aucky Minoral (A	7) /I DD D	о, этих —	Doplote	d Dark Surfa	(F7)			nt Matarial (TE2)	
S Chi K			, I, U)	Podov	Doprossions				llow Dark Surface	(TE12)
		-RR U)				(го)				(2)
	MUCK (A9) (LRR	P, I)		Mari (F	10) (LRR U)		4	Other (Ex	piain in Remarks)
Deplet	ed Below Dark	Surface (A	11)	Deplete	ed Ochric (F1	1) (MLRA 15	01) DD O D T)			
	Dark Surface (A1	12)	· · · · · · · · · · · · · · · · · · ·	Iron-Ma	anganese Ma	sses (⊦12) (I	_RR 0, P, I)	³ Indicato	ors of hydrophytic	vegetation and
Coast	Prairie Redox (A	(MLR) (MLR	A 150A)	Umbric	Surface (F13	3) (LRR P, T ,	U)	wetland	hydrology must b	e present, unless
Sandy	Mucky Mineral ((S1) (LRR	O, S)	Delta C)chric (F17) (I	MLRA 151)		disturbed	d or problematic.	
Sandy	Gleyed Matrix (S4)		Reduce	ed Vertic (F18	B) (MLRA 15	0A, 150B)			
Sandy	Redox (S5)			Piedmo	ont Floodplair	s Soils (F19)	(MLRA 1494	4)		
Strippe	ed Matrix (S6)			Anoma	lous Bright Lo	oamy Soils (F	20) (MLRA 1	49A, 153C, 153	BD)	
Dark S	Surface (S7) (LR	R P, S, T,	U)							
Restrictive	Layer (if observ	ved):								
	Туре:				Hyd	ric Soil Pres	sent?	Yes	X No	
Depth ((inches):									
Remarks:										
Possible fill	with high clay co	ontent								

Project/Site: BARC Traffic Mitiga	tion	City/County: Prince Ge	orge's S	Sampling Date:	04/12/2021
Applicant/Owner: BARC		State: MD	Sampling Point:	DP-102	
Investigator(s): DRC/LEJ		Section, Township, Range:			
Landform (hillslope, terrace, etc.): H	illslope bottom Local relief (co	ncave, convex, none):	Convex S	Slope (%): 2	
Subregion (LRR or MLRA): LRR R	Lat: 39.033	899 Long:	-76.877483	Datum:	NAD 83
Soil Map Unit Name: Christiana an	d Downer		NWI c	lassification:	PEM
Are climatic/hydrologic conditions on th	ne site typical for this time of year?	Yes X	No ((If no, explain in Re	emarks)
Are Vegetation, Soil, o	r Hydrology significantly dist	urbed? Are "Normal Circu	umstances" present?	Yes X	No
Are Vegetation, Soil, o	r Hydrology naturally probler	natic? (If needed, explai	n any answers in Re	emarks.)	
SUMMARY OF FINDINGS - Attach si	te map showing sampling point lo	ocations, transects, import	ant features, etc.		
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled A	Area		
Hydric Soil Present?	Yes X No	within a Wetland	l? Yes	X No	
Wetland Hydrology Present?	Yes X No	_			
Remarks:		I			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch	neck all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:										
Surface Water Present?	Yes		No	Х	Depth (inches):					
Water Table Present?	Yes		No	Х	Depth (inches):					
Saturation Present?					_		Wetland Hydrology			
(includes capillary fringe)	Yes	Х	No		Depth (inches):	0.5"	Present?	Yes	Х	No
Describe Recorded Data (s	tream g	gauge,	monite	oring	well, aerial photos,	previous insp	ections), if available:			
Remarks:										
Nomano.										
Just rained, bottom of hills	ope in l	arge w	etland	area						
Wetland continues under fe	ence	Ū								

VEGETATION (Five Strata) - Use scientific names c	of plants.			Sampling Point: 102
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1		<u> </u>		Number of Dominant Species That
2				Are OBL, FACW, or FAC: (A)
3		<u> </u>		
4		<u> </u>		Total Number of Dominant Species
5		<u> </u>		Across All Strata: <u>3</u> (B)
6		<u> </u>		
50% of total cover:		= Total Cover		Percent of Dominant Species That Are OBL_EACW_or_EAC: 100 (A/R)
Conling Stratum (Diat Cize: 20 fact radius nist)				Provalance Index workshoet:
<u>Saping Stratum</u> (Plot Size. <u>20-100t radius plot)</u>				Total % Cover of Multiply by
·		- <u> </u>		OBL species x 1 -
<u> </u>		- <u> </u>		EACW species
). 		·		FAC species x 3 -
•		·		FACIL species x4 -
		· <u> </u>		
		- Total Covor		
50% of total cover:				
		20% 01 10181 00001.		Prevalence Index = B/A =
<u>Shrub Stratum</u> (Plot Size: <u>20-foot radius plot)</u>				Hydrophytic Vegetation Indicators:
2.		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation
3		- <u></u> .		X 2 - Dominance Test is >50%
		<u> </u>		3 - Prevalence Index is ≤3.0 ¹
5.		<u> </u>		Problematic Hydrophytic Vegetation ¹
)		- <u> </u>		
		= Total Cover		
50% of total cover:		20% of total cover:		(Explain)
_		-		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot Size: <u>10-foot radius plot)</u>				Definitions of Five Vegetation Strata:
Phalaris arundinacea	40	Y	OBL	Deminions of Five vegetation Strata.
Juncus effusus	15	<u>N</u>	OBL	Tree - Woody plants, excluding woody vines,
Agrostis stolonifera	60	<u> </u>	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
j		- <u> </u>		Sapling - Woody plants, excluding woody vines.
)				approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.
·				Shrub - Woody plants, evoluting woody vince
)		<u> </u>		approximately 3 to 20 ft (1 to 6 m) in height.
		- <u> </u>		
1		<u> </u>		Herb - All herbaceous (non-woody) plants, including herbaceous vines regardless of size and woody
····	115	= Total Cover		plants, except woody vines, less than approximately
50% of total cover	57.5	20% of total cover	23.3	3 ft (1 m) in height.
	0110			Woody vine - All woody vines, regardless of height.
<u>Woody Vine Stratum</u> (Plot Size: <u>20-foot radius plot)</u> 1				
···		- <u> </u>		
		<u> </u>		Remarks: (if observed, list morphological
		<u> </u>		adaptations below.)
		= Total Cover		
50% of total cover		20% of total cover		Hydrophytic Yes X No
				Vegetation Present?

SOIL

Profile Desc	ription: (Descr	ibe to the	e depth neede	d to doc	ument the in	dicator or o	confirm the ab	sence of inc	dicators.)
Death	Matrix	×	0.1	Redox	Features				
Depth	Color	0/	Color	0/	T : m a 1	1	Tautu		Demerlie
(inches)		%	(IVIOIST)	%	Туре	LOC	Textu	re	Remarks
0-2″	10 YR 3/2	100					loan	<u>ו</u>	
2-6"	10YR 4/2	70	10YR 4/6	30	C	PL	Fine sand	y loam	
6-12"	10YR 5/3	60	10YR 2/1	40	C	PL	Sandy clay	loam	Gravel present
¹ Type: C=Co	ncentration, D=	Depletion	, RM=Reduced	Matrix,	MS=Masked	Sand Grains	s. ² Location: Pl	_=Pore Linin	g, M=Matrix
Hydric Soil I	Indicators:							Indicat	tors for Problematic Hydric Soils ³ :
									-
Histoso	ol (A1)			Polyva	lue Below Su	rface (S8) (L	.RR S, T, U)	1 cm M	luck (A9) (LRR O)
Histic E	Epipedon (A2)			Thin D	ark Surface (S	59) (LRR S.	T. U)	2 cm M	luck (A10) (LRR S)
Black H	listic (A3)			Loamy	Mucky Miner	al (F1) (I RF	20)	Reduce	ed Vertic (F18) (Outside MI RA 150A, B
Black I	en Sulfide (A4)			Loamy	Gleved Matri	v (E2)		Piedmo	ont Eloodalain Soils (E19) (I PP P S T)
Nyurug				Doplot	od Matrix (E2)	× (1 2)	-		lous Bright Loomy Soils (F20)
	Dedies (AG)	DD D T		Depier	Dork Surface	(ГС)	-		
	Boules (AO) (L	.KK F, I,	0) 	Redux	Dark Surface	(FO)			
5 cm M	lucky Mineral (А		³ , 1, 0)	Depiete	ed Dark Surfa		-		
Muck P	resence (A8) (L	.RR U)		Redox	Depressions	(F8)	-	Very Sr	hallow Dark Sufface (TF12)
1 cm M	luck (A9) (LRR I	Ρ, Τ)		Marl (F	10) (LRR U)		-	Other (I	Explain in Remarks)
Deplete	ed Below Dark S	Surface (A	.11)	Deplete	ed Ochric (F1	1) (MLRA 1	51)		
Thick D	ark Surface (A1	12)		Iron-Ma	anganese Ma	sses (F12) (LRR O, P, T)	³ Indica	ators of hydrophytic vegetation and
Coast F	Prairie Redox (A	.16) (MLR	A 150A)	Umbric	Surface (F13	B) (LRR P, T	', U)	wetlar	nd hydrology must be present, unless
Sandy	Mucky Mineral ((S1) (LRR	0, S)	Delta C	Dchric (F17) (I	MLRA 151)		disturk	ped or problematic.
Sandy	Gleyed Matrix (S	S4)		Reduce	ed Vertic (F18	B) (MLRA 15	0A, 150B)		
Sandy	Redox (S5)			Piedmo	ont Floodplain	s Soils (F19) (MLRA 149A)	
 Strippe	d Matrix (S6)			Anoma	Ilous Briaht La	oamv Soils (F20) (MLRA 14	, 49A. 153C. 1	53D)
Dark S	urface (S7) (LR I	R P, S, T,	U)		5	,	- / (- ,,)
Destrictive I		(o d).			<u> </u>				
Restrictive	Layer (II observ	/ea):			Lbra	uia Cail Dua	m 1 0	Vee	X No
	Type:				Нуа	ric Soli Pre	sent?	res	<u>X</u> NO
Depth (i	nches):								
Demonstra									
Remarks:	ot rained								
Some grave	l in bottom lave	er							
<u>g</u>									

Project/Site:	BARC Tra	ffic Mitigation		City/Cou	unty:	Prince G	eorge's	Sampling Date:	04/12/2021
Applicant/Owner:	BARC			State:	Md		Sampling Poir	nt: DP-103	
Investigator(s):	LEJ/DF	RC		Section,	, Township	o, Range	:		
Landform (hillslop	e, terrace,	etc.): hillside	Local relief (concave,	convex, no	one):	Concave	Slope (%): 3	
Subregion (LRR o	or MLRA):	LRR R	Lat: 39.0	33727,		Long:	-76.877031	Datum:	NAD 83
Soil Map Unit Nan	ne: <u>Chr</u>	istiana and Downer					NW	/I classification:	UPL
Are climatic/hydro	logic condi	tions on the site typical for	this time of year?	?	Yes	Х	No	(If no, explain in R	lemarks)
Are Vegetation	, Soil	, or Hydrology	significantly di	isturbed?	Are "No	ormal Cir	cumstances" prese	nt? Yes X	No
Are Vegetation	, Soil	, or Hydrology	naturally prob	lematic?	(If nee	ded, exp	ain any answers in	Remarks.)	

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X	No No No	X	Is the Sampled Area within a Wetland?	Yes	No
Remarks:							

HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	—	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:												
Surface Water Present?	Yes	No	Х	Depth (inches):								
Water Table Present?	Yes	No	Х	Depth (inches):								
Saturation Present?	-				Wetland Hydrology							
(includes capillary fringe)	Yes	No	Х	Depth (inches):	Present?	Yes	Х	No				
Describe Recorded Data (s	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:												
Recent rainfall, just uphill c	f DP-10	3. Hill goes	up to t	oward buildings just north	of Powder Mill							

VEG	ETATION (Five Strata) - Use scientific names	of plants.			Sampling Point: 103
Tree	Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. 2. 3.					Number of Dominant Species That Are OBL, FACW, or FAC: (A)
4. 5.					Total Number of Dominant Species Across All Strata: (B)
0.	50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
Sapl	ing Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.					Total % Cover of: Multiply by:
2.					OBL species x 1 =
3.					FACW species x 2 =
4.			· ·		FAC species x 3 =
5.					FACU species x 4 =
6.			·		UPL species x 5 =
0.			= Total Cover		Column Totals: (A) (B)
	50% of total covor:		20% of total covor:		
					Prevalence Index = B/A =
<u>Shru</u>	b Stratum (Plot Size: 20-foot radius plot)				Ludranhutia Varatatian Indiastara
1.					Hydrophytic vegetation indicators:
2.			·		1 - Rapid Test for Hydrophytic Vegetation
3.			·		X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.			. <u> </u>		Problematic Hydrophytic Vegetation ¹
6.					
			= Total Cover		(Explain)
					¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic.
Herb	Stratum (Plot Size: 10-foot radius plot)				
1.	Festuca pratensis	70	Y	FACUP	Definitions of Five Vegetation Strata:
2. 3.	Agrostis stolonifera	20	Y	FACW	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
4. 5. 6.					Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.
7. 8.					Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
9. 10. 11.					Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in beidt
	50% of total cover:	90 45	= Total Cover 20% of total cover:	18	Woody vine - All woody vines regardless of height
<u>Woo</u> 1.	dy Vine Stratum (Plot Size: 20-foot radius plot)				woody whe - An woody vines, regardless of height.
2.			·		Remarks: (if observed, list morphological
J.			·		adaptations below.)
			= Total Cover		The described to a second second
	50% of total cover:		20% of total cover:		Present?

Profile Desc	cription: (Desc	ribe to the	depth need	ed to doc	ument the in	dicator or o	confirm the a	absence of ind	icators.)	
Denth	Matri	X	0.1	Redox	Features					
Depth	Color	0/	Color	0/	T	1 2	T	1	D	
(Incres)		%	(IVIOIST)	%	Type.	LOC	Tex	ture	Rem	arks
0-6″	10YR 4/3	100					108	am		
6-8"	10YR 4/4						loa	am		
7-12"	7.5YR 4/4						Loam		Small	gravel
¹ Type: C=Co	oncentration, D=	Depletion,	RM=Reduce	ed Matrix,	MS=Masked \$	Sand Grains	. ² Location:	PL=Pore Lining	, M=Matrix	
Hydric Soil	Indicators:							Indicate	ors for Problematic	Hydric Soils ³ :
Histoso	ol (A1)			Polyval	ue Below Sur	face (S8) (L	.RR S, T, U)	1 cm Mu	uck (A9) (LRR O)	
Histic I	Epipedon (A2)			 Thin Da	ark Surface (S	69) (LRR S,	T, U)	2 cm Mu	uck (A10) (LRR S)	
Black I	Histic (A3)			_ Loamy	Mucky Miner	al (F1) (LRF	l O)	Reduce	d Vertic (F18) (Outsi	de MLRA 150A, B)
Hydrog	gen Sulfide (A4)			Loamy	Gleyed Matri	x (F2)		Piedmor	nt Floodplain Soils (F	19) (LRR P, S, T)
Stratifi	ed Layers (A5)			 Deplete	ed Matrix (F3)			Anomalo	ous Bright Loamy So	ils (F20)
Organi	c Bodies (A6) (I	_RR P, T, I	J)	Redox	Dark Surface	(F6)		(MLR	A 153B)	
5 cm N	Aucky Mineral (A	(LRR P	, T, U)	_ Deplete	ed Dark Surfa	ce (F7)		Red Par	ent Material (TF2)	
Muck F	Presence (A8) (I	LRR U)	· · · · <u> </u>	 Redox	Depressions	(F8)		Verv Sh	allow Dark Surface ((F12)
1 cm N	Auck (A9) (LRR	P. T)		 Marl (F	arl (F10) (LRR U)				xplain in Remarks)	,
Deplet	ed Below Dark S	Surface (A	11)	_ Deplete	ed Ochric (F1	1) (MLRA 1	51)			
Thick [Dark Surface (A	12)		Iron-Ma	anganese Ma	sses (F12) (, I RR O. P. T)	3		
Coast	Prairie Redox (A	16) (MI R	A 150A)	_ Umbric	Surface (F13	(IRR P. T	-u)	' °Indica	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
Sandy	Mucky Mineral	(S1) (I RR	0.5)	_ Delta ()chric (E17) (I	/ (=, . ΜΙ RΔ 151)	, .,	disturb		
Sandy	Gleved Matrix ((01) (E III S4)	<u> </u>	_ Reduce	d Vertic (F18	MIRA 15	0A 150B)	alotarb		
Sandy	Bodov (S5)	(+0		- Diodmo	nt Eloodoloin		MIDA 140	241		
Strippo	Matrix (S6)			_ Anoma	Silit Floodplains Solis (F19) (MILRA 149A)					
		ппет				Jamy Solis (149A, 155C, 1	550)	
	unace (57) (LR	R P, 5, 1,	0)							
Restrictive	Layer (if obser	ved):								
	Туре:				Hyd	ric Soil Pre	sent?	Yes	No	<u> </u>
Depth (inches):									
Remarks:										

Project/Site: BARC Traffic Mitigation	City/County:	Prince Geor	ge's	Sampling Date:	05/11/21
Applicant/Owner: BARC	State: M	D	Sampling Point:	DP-104	
Investigator(s): LEJ/DRC	Section, Tov	wnship, Range:			
Landform (hillslope, terrace, etc.): Roadside floodplain Local relief	(concave, con	vex, none): Co	oncave	Slope (%): 1	
Subregion (LRR or MLRA): LRR R Lat: 39.0	32911	Long:	-76.901474	Datum:	NAD 83
Soil Map Unit Name: Christiana and Downer			NWI	classification:	UPL
Are climatic/hydrologic conditions on the site typical for this time of year	?	Yes X	No	(If no, explain in R	emarks)
Are Vegetation, Soil, or Hydrology significantly d	isturbed? A	re "Normal Circun	nstances" present	? Yes X	No
Are Vegetation, Soil, or Hydrology naturally prob	lematic? (If needed, explain	any answers in R	emarks.)	
SUMMARY OF FINDINGS - Attach site map showing sampling poin	t locations, tra	ansects, importai	nt features, etc.		
Hydrophytic Vegetation Present? Yes X No	1	s the Sampled A	rea		
Hydric Soil Present? Yes No X	C V	vithin a Wetland?	? Yes _	<u>No</u>	Х
Wetland Hydrology Present? Yes No X	<u>.</u>				
Remarks: East of powder mill Some wetland plants, but not soils. Outskirts of floodplain					
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indic	ators (minimum of	two required)
Primary Indicators (minimum of one is required; check all that apply)			Surface So	il Cracks (B6)	

initially indicatore (initialitian of one to required, on		
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:							
Surface Water Present?	Yes	No	Х	Depth (inches):			
Water Table Present?	Yes	No	Х	Depth (inches):			
Saturation Present?					Wetland Hydrology		
(includes capillary fringe)	Yes	No	Х	Depth (inches):	Present?	Yes	<u>No X</u>
Describe Recorded Data (s	stream gau	ge, monito	oring	well, aerial photos, previous	inspections), if available:		
Remarks:							

VEGETATION (Five Strata) - Use scientific names of plants.

VEG	GETATION (Five Strata) - Use scientific name	s of plants.			Sampling Point: 104
Tree	e Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	Fagus grandifolia	10	Y	FACU	Number of Dominant Species That
2.	Acer rubrum	10	Y	FAC	Are OBL, FACW, or FAC: 6 (A)
3.	Liriodenderon tulipifera	15	Y	FACU	()
4.	Quercus palustris	10	Y	FACW	Total Number of Dominant Species
5.	Fraxinus pennsylvanica	5	N	FACW	Across All Strata: 11 (B)
6.			<u> </u>		
		50	= Total Cover		Percent of Dominant Species That
	50% of total cover:	25	20% of total cover:	10	Are OBL, FACW, or FAC: <u>55</u> (A/B)
San	ling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
<u>0up</u> 1.					Total % Cover of: Multiply by:
2.					OBL species x 1 =
3.					FACW species x 2 =
4.					FAC species x 3 =
5.			- <u> </u>		FACU species x 4 =
6.					UPL species x 5 =
			= Total Cover		Column Totals: (A) (B)
	50% of total cover:		20% of total cover:		
			-		Prevalence Index = B/A =
<u>Shr</u>	ub Stratum (Plot Size: 20-foot radius plot)				
1.	Viburnum dentatum	25	Y	FAC	Hydrophytic Vegetation Indicators:
2.	Lindera benzoin	25	Y	FACW	1 - Rapid Test for Hydrophytic Vegetation
3.	Corvlus americana	5	N	FACU	X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.					Problematic Hydrophytic Vegetation ¹
6.			- <u> </u>		
		55	= Total Cover		(Explain)
	50% of total cover:	27.5	20% of total cover:	11	
					¹ Indicators of hydric soil and wetland hydrology must be
Hort	Stratum (Plot Size: 10-foot radius plot)				present, unless disturbed of problematic.
1	(Fiber and Street and	20	V		Definitions of Five Vegetation Strata:
••	Microstegium vimineum	- 30	<u> </u>	FAC	
2.	Cinna arundinacea	10	Y	FACW	approximately 20 ft (6 m) or more in height and 3 in.
3.	Impatiens capensis	5	N	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
4.					Sanling - Woody plants, excluding woody vines
5.					approximately 20 ft (6 m) or more in height and less
6.			<u> </u>		than 3 in (7.6 cm) DBH.
7.					Shrub – Woody plants, excluding woody vines,
8.				<u> </u>	approximately 3 to 20 ft (1 to 6 m) in height.
9.					Herb - All herbaceous (non-woody) plants, including
10.					herbaceous vines, regardless of size, and woody
11.					3 ft (1 m) in height.
		45		0	
	50% of total cover:	22.5	20% of total cover:	9	Woody vine - All woody vines, regardless of height.
Woo	ndy Vine Stratum (Plot Size: 20-foot radius plot))			
1	Dorthonopologue quinquefelie	<u>^</u> 30	v	FACU	
2		15	- <u>·</u> · · · · · · · · · · · · · · · · · ·	FACU	
 3.	Toxicodendron radicans	20	· · · · · · · · · · · · · · · · · · ·	FACU	Remarks: (if observed, list morphological
			· · · · · · · · ·		adaptations below.)
		65	= Total Cover		
	50% of total cover:	32.5	20% of total cover:	13	Hydrophytic Yes X No
			-		Vegetation Present?

Profile Desc	cription: (Descr	ibe to the	e depth needed	d to doc	un	nent the ir	ndicator or o	confirm the a	bsence of indicators.)		
	Matrix	ĸ		Redox	Fe	atures					
Depth	Color		Color					_			
(Inches)	(Moist)	%	(Moist)	%		Type ¹	Loc ²	Text	ture Remarks		
0-3"	10YR 5/3							loa	m		
3-10"	10YR 4/3	70	10YR 4/4	30		C	M	loa	m		
10-12"	10YR 5/4	70	10YR 4/6	30	Х	С	M	loam			
¹ Type: C=Co	oncentration, D=	Depletion,	RM=Reduced	Matrix,	MS	S=Masked	Sand Grains	s. ² Location: F	PL=Pore Lining, M=Matrix		
Hydric Soil	Indicators:								Indicators for Problematic Hydric Soils ³ :		
Histoso	ol (A1)			Polyva	lue	Below Su	rface (S8) (L	.RR S, T, U)	1 cm Muck (A9) (LRR O)		
Histic E	Epipedon (A2)			Thin D	ark	Surface (S9) (LRR S,	T, U)	2 cm Muck (A10) (LRR S)		
Black H	Histic (A3)			Loamy	M	ucky Minei	ral (F1) (LRF	R O)	Reduced Vertic (F18) (Outside MLRA 150A, E		
Hydrog	gen Sulfide (A4)			Loamy	GI	eyed Matr	ix (F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratifie	ed Layers (A5)			Deplete	ed	Matrix (F3)		Anomalous Bright Loamy Soils (F20)		
Organi	c Bodies (A6) (L	.RR P, T,	U)	Redox	Da	rk Surface	e (F6)		(MLRA 153B)		
5 cm N	lucky Mineral (A	7) (LRR F	P, T, U)	Deplete	ed	Dark Surfa	ace (F7)		Red Parent Material (TF2)		
Muck F	Presence (A8) (L	.RR U)		Redox	lox Depressions (F8)				Very Shallow Dark Surface (TF12)		
1 cm M	luck (A9) (LRR	P. T)		Marl (F	-10) (LRR U)			Other (Explain in Remarks)		
Deplete	ed Below Dark S	Surface (A	11)	Deplete	ed	Ochric (F1	1) (MLRA 1	51)			
Thick E	Dark Surface (A1	12)		Iron-Ma	and	anese Ma	asses (F12)	'LRR O. P. T)	31 d'actaire of builden builden autotions and		
Coast	Prairie Redox (A	.16) (MLR	A 150A)	Umbric	vric Surface (E13) (I RR P T II)				³ Indicators of hydrophytic vegetation and		
Sandy	Mucky Mineral ((S1) (I RR	0.5)	Delta (Ch	uric (F17) (MI RA 151)	, •,	disturbed or problematic.		
Candy	Gleved Matrix ((01) (E III S4)		Reduce	bo bo	Vertic (F1)	R) (MI RA 16	0A 150B)			
Sandy	Redox (S5)	0-1)		Piedmo	ont	Floodolair	ne Soile (F10) (MI RA 149)	۵)		
Oundy	d Matrix (S6)			Anoma		s Bright L	oamy Soile (~/ 1/0A 153C 153D)		
Outppe Dark S	urface (S7) (I P	ррст		Anoma	aiot		Carry Sons (143A, 133C, 133D)		
Daik S		KT, 5 , 1,	0)								
Postrictivo	l avor (if obsor	(od):									
Restrictive		reu).				Hve	Iric Soil Pre	sont?	Ves No X		
Depth (i	inches):					i i ye		Sent :			
Deptil (<u> </u>										
Remarks:											
Soil very dry											
Light soli											
Wetland 3 U	PL point										

Project/Site: BARC Traffic Mitigation	City/County: Prince George's Sampling Date: 05/12/21
Applicant/Owner: BARC	State: MD Sampling Point: DP-105
Investigator(s): LEJ/DRC	Section, Township, Range:
Landform (hillslope, terrace, etc.): Roadside floodplain Local relief (c	concave, convex, none): Concave Slope (%): 2
Subregion (LRR or MLRA): LRR R Lat: 39.03	2261 Long: -76.900463 Datum: NAD 83
Soil Map Unit Name: Christiana and Downer	NWI classification: PEM/FO
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks)
Are Vegetation, Soil, or Hydrology significantly dis	sturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally proble	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	
Remarks:	
Data point for Wetland 4 (TS W4-1)	

HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
X Inundation Visible on Aerial Imagery (B7)	—	FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:										
Surface Water Present?	Yes		No	Х	Depth (inches):					
Water Table Present?	Yes		No	Х	Depth (inches):					
Saturation Present?	_		-			Wetland Hydrology				
(includes capillary fringe)	Yes	Х	No	0"	Depth (inches):	Present?	Yes	Х	No	
Describe Recorded Data (s	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:										
Wetland 4 drains west to V	Vetland 3	under	drave	el road	through 24" CMP . which (drains to Wetland 1 to Indiana Creek				
	· · · · · · · · · · · · · · · · · · ·		3		5					
			3		0 • <i>i</i>					

VEGETATION (Five Strata) - Use scientific names of plants.

VEG	GETATION (Five Strata) - Use scientific names	of plants.			Sampling Point: 105	
Tree	e Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1	Quercus phellos	25	Y	FACW	Number of Dominant Species That	
2	Acer rubrum	20	- <u>·</u> · · · · · · · · · · · · · · · · · ·	FAC	Are OBL_EACW_or_EAC: 6 (A	
3		20	· ·			.)
۵. ۵					Total Number of Deminent Creation	
5				<u> </u>	Across All Strata: 6	
6				<u> </u>)
0.		55	= Total Cover		Percent of Dominant Species That	
	50% of total cover:	27.5	20% of total cover:	11	Are OBL, FACW, or FAC:(A/	B)
<u>Sap</u>	ling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:	
1.	Liquidamabar styracifula	15	Y	FAC	Total % Cover of: Multiply by:	
2.	Magnolia virginiana	10	Y	FACW	OBL species x 1 =	
3.	Viburnum dentatum	6	N	FAC	FACW species x 2 =	
4.					FAC species x 3 =	
5.					FACU species x 4 =	
6.					UPL species x 5 =	
		36	= Total Cover		Column Totals: (A) (E	3)
	50% of total cover:	15.5	20% of total cover:	7.2		
	-		-		Prevalence Index = B/A =	
<u>Shr</u> u	ub Stratum (Plot Size: 20-foot radius plot)					
1.					Hydrophytic Vegetation Indicators:	
2.					1 - Rapid Test for Hydrophytic Vegetation	1
3.					X 2 - Dominance Test is >50%	
4.					3 - Prevalence Index is ≤3.0 ¹	
5.					Problematic Hydrophytic Vegetation'	
6.				<u> </u>		
	5 00(- ()-()-()-()-()-()-()-()-()-		= Iotal Cover		(Explain)	
	50% of total cover:		20% of total cover:		Indicators of bydric soil and wetland bydrology must b	
					present, unless disturbed or problematic.	C
Herl	o Stratum (Plot Size: <u>10-foot radius plot)</u>					
1.	Dichanthelium clandestinum	5	Ν	FACW	Definitions of Five Vegetation Strata:	
2.	Carex frankii	5	N	OBL	Tree - Woody plants, excluding woody vines	
З.	Juncus effusus	10	N	OBL	approximately 20 ft (6 m) or more in height and 3 in	۱.
4.	Agrostis stolonifera	35	Y	FACW	(7.6 cm) or larger in diameter at breast height (DBH	I).
5.	Carex scoparia	15	<u>N</u>	FACW	Sapling - Woody plants, excluding woody vines	
6.	Toxicodendron radicans	15	N	FAC	approximately 20 ft (6 m) or more in height and less	3
7.					than 3 in (7.6 cm) DBH.	
8.					Shrub - Woody plants, excluding woody vines.	
9.			<u> </u>		approximately 3 to 20 ft (1 to 6 m) in height.	
10.			<u> </u>		Herb - All berbaceous (non-woody) plants, includin	a
11.			. <u> </u>		herbaceous vines, regardless of size, and woody	g
	-	85	= Total Cover		plants, except woody vines, less than approximatel	у
	50% of total cover:	42.5	20% of total cover:	17	3 ft (1 m) in height.	
Woo	ody Vine Stratum (Plot Size: 20-foot radius plot)				Woody vine - All woody vines, regardless of height	t.
1.	Smilax rotundilfolia	10	Y	FAC		
2.						
3.			· ·		Remarks: (if observed, list morphological	
			· ·		adaptations below.)	
		10	= Total Cover			
	50% of total cover:	5	20% of total cover:	2	Hydrophytic Yes X No	
					Vegetation Present?	

Profile Desci	ription: (Descri	be to the	depth needed	to doc	ument the in	dicator or o	onfirm the ab	sence of i	indicators.)		
	Matrix	I		Redox	Features						
Depth	Color		Color								
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Texture			Remarks	
0-1"	10YR 2/1	100					Sandy loam		Hig	gh fibric organic content	
1-3"	10YR 3/2	80	5YR 3/4	20	С	PL	loam	1			
3-10"	10YR 4/2	60	7.5YR 4/6	40	С	М	Fine sandy I	oam			
10-12"	10YR 5/4	70	10 YR 5/6	30	С	М	Loamy s	and			
					·		· · · · · · · · · ·				
¹ Type: C=Cor	ncentration, D=I	Depletion,	RM=Reduced	Matrix,	MS=Masked S	Sand Grains	. ² Location: PL	.=Pore Lin	ning, M=Matrix	x	
Hydric Soil II	ndicators:							Indic	cators for Pro	oblematic Hydric Soils ³ :	
Histocol	1 (A 1)			Polyad		rfaco (S8) (I		1 cm	Muck (AQ) /I		
Histosol	ninodon (A2)			Thin D	ark Surface (S	11ace (30) (L		1 CIII 2 cm			
						$ = (\Gamma_4) (I \mathbf{D} \mathbf{C}) $	1, 0) <u> </u>	2 UII		$\frac{1}{2} \left(\frac{1}{2} \right) \left(1$	
	nslic (A3)			Loamy	Cloued Metri	аг (г т) (ск е м (го)		Redu	iceu veriic (F	in Soile (E10) (LBB D S T)	
			<u> </u>	Doplet	Gleyed Matrix (F2)	X (FZ)	_		noni Fiooupia		
		ор в т і	n <u>^</u>	Depiete	Dork Surfood		. <u> </u>	Anon		LUAITY SUIS (F2U)	
						(FO)		(IVI Dodu	Derent Meteri		
	5 cm Mucky Mineral (A7) (LRR P, I, U) Deplete						. <u> </u>			dI(IFZ)	
	Muck Presence (A8) (LRR U) Redox					(го)	_	very	Shallow Dark	Surface (TFTZ)	
	UCK (A9) (LRR F	2, 1)		Mari (F	10) (LRR U)			Othe	r (Explain in F	Remarks)	
Deplete	d Below Dark S	urrace (A	11) <u> </u>	Deplete	ed Ochric (F1	1) (IVILRA 1	51)				
	ark Sufface (A1	2) 40) (MI D		Iron-Ivia	anganese Ma	sses (F12) (³ Indicators of hydrophytic vegetation and			
Coast P	rairie Redox (A	16) (MLR	A 150A)	Umbric	ric Surface (F13) (LRR P, T, U)				wetland hydrology must be present, unless		
Sandy N	Mucky Mineral (S1) (LRR	0, 5)	Delta C	Ochric (F17) (MLRA 151)				urbed or prob	lematic.	
Sandy C	Sleyed Matrix (S	54)		Reduce	ed Vertic (F18	3) (MLRA 15	0A, 150B)				
Sandy F	Redox (S5)			Piedmo	nont Floodplains Solis (F19) (MLRA 149A)						
Stripped	d Matrix (S6)			Anoma	ialous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark Su	urface (S7) (LRF	Κ Ρ, S , Τ,	U)								
Restrictive L	ayer (if observ.	ed):									
	Туре:				Hyd	ric Soil Pre	sent?	Yes	Х	No	
Depth (ir	nches):										
Remarks:											

Project/Site:	BARC Traf	ffic Mit	igation		0	City/Cou	unty:	Prince G	eorge's	Sampling Date:	05/12/21
Applicant/Owner:	BARC				5	State:	MD		Sampling Poin	t: DP-106	
Investigator(s):	LEJ/DF	RC			5	Section,	Townsh	nip, Range			
Landform (hillslop	e, terrace, e	etc.):	Roadside floodplain	Local	relief (cor	ncave, c	convex,	none):	Flat	Slope (%):	
Subregion (LRR o	or MLRA):	LRR	R	Lat:	39.0322	214		Long:	-76.900222	Datum:	NAD83
Soil Map Unit Nan	ne: <u>Chri</u>	istiana	and Downer						NW	I classification:	UPL
Are climatic/hydro	logic condit	tions o	n the site typical for thi	is time o	f year?		Yes	6 X	No	(If no, explain in	Remarks)
Are Vegetation	, Soil		, or Hydrology	significa	antly distu	irbed?	Are "I	Normal Cir	cumstances" preser	nt? Yes X	No
Are Vegetation	, Soil		, or Hydrology	naturall	y problem	natic?	(If ne	eded, expl	ain any answers in	Remarks.)	

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes Yes	No No No	Is the Sampled Area within a Wetland? Yes	No <u>X</u>
Remarks:				

HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:								
Surface Water Present?	Yes	No	Х	Depth (inches):				
Water Table Present?	Yes	No	Х	Depth (inches):		-		
Saturation Present?						Wetland Hydrology		
(includes capillary fringe)	Yes	No	Х	Depth (inches):		Present?	Yes	<u>No X</u>
Describe Recorded Data (s	stream o	gauge, monit	toring	well, aerial photos, p	revious inspec	tions), if available:		
Remarks:								
Remarks.								

VEGETATION (Five Strata) - Use scientific names	of plants.			Cer 107A
	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot Size: 20-foot radius plot)	% Cover	Species?	Status	
1. Acer rubrum	40	Υ	FAC	Number of Dominant Species That
2. Quercus phellos	20	Y	FACW	Are OBL, FACW, or FAC: 5 (A)
3. Nyssa sylvatica	10	N	FAC	
4.				Total Number of Dominant Species
5.				Across All Strata: 7 (B)
6.				(2)
	70	= Total Cover		Percent of Dominant Species That
50% of total cover	45	20% of total cover:	14	Are OBL_EACW or EAC: 71 (A/R)
	-10	- 2070 01 10101 00001.		
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1. Fagus grandifolia	15	Y	FACU	Total % Cover of: Multiply by:
2		· ·		OBL species x 1 =
2				
۰		<u> </u>		
+				
o				
б				
	15	= Total Cover		Column Totals: (A) (B)
50% of total cover:	7.5	20% of total cover:	3	
				Prevalence Index = B/A =
Shrub Stratum (Plot Size: 20-foot radius plot)				
1. Viburnum dentatum	10	Y	FAC	Hydrophytic Vegetation Indicators:
2.				1 - Rapid Test for Hydrophytic Vegetation
3.		· · · · · · · · · · · · · · · · · · ·		X 2 - Dominance Test is >50%
4.				3 - Prevalence Index is ≤3.0 ¹
5.				Problematic Hydrophytic Vegetation ¹
6				
	10	- Total Covor		
E0% of total cover	5		2	(Explain)
	5		Z	Indicators of hydric soil and wetland hydrology must be
				present, unless disturbed or problematic.
Herb Stratum (Plot Size: 10-foot radius plot)				
1. Catharanthus roseus	50	Y	UPI	Definitions of Five Vegetation Strata:
2		· ·	0	
<u></u>				Tree - Woody plants, excluding woody vines,
				(7.6 cm) or larger in diameter at breast height (DBH).
4				
b				Sapling - Woody plants, excluding woody vines,
б				approximately 20 ft (6 m) or more in height and less
7		. <u> </u>		
8		<u> </u>		Shrub – Woody plants, excluding woody vines,
9.		<u> </u>		approximately 3 to 20 ft (1 to 6 m) in height.
10				Herb - All herbaceous (non-woody) plants including
11				herbaceous vines, regardless of size, and woody
	50	= Total Cover		plants, except woody vines, less than approximately
50% of total cover:	25	20% of total cover:	10	3 ft (1 m) in height.
		-		Woody vine - All woody vines, regardless of height
Woody Vine Stratum (Plot Size: 20-foot radius plot)				
1. Toxicodendron radicans	15	Y	FAC	
2. Smilay rotundifolia	35	Y	FAC	
	10	- <u> </u>	FACU	Remarks: (if observed, list morphological
	7		FACU	adaptations below.)
+ Partnenocissus quinquetolia	1		FACU	
	10		40.4	
50% of total cover:	33.5	20% of total cover:	13.4	Vegetation
				Present?

Profile Desc	cription: (Desci	ibe to the	e depth needed	d to doc	ument the in	dicator or c	onfirm the ab	sence of ind	icators.)		
	Matri	x		Redox	Features						
Depth	Color		Color								
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Textu	re	Re	emarks	
0-5	10 YR 3/2						loam	1			
5-12	10YR 4/4	80	10YR 4/6	20	С	М	Fine sandy loam				
			-								
							-				
¹ Type: C=Co	oncentration, D=	Depletion	, RM=Reduced	Matrix,	MS=Masked	Sand Grains	. ² Location: PL	_=Pore Lining	, M=Matrix		
Hydric Soil	Indicators:							Indicate	ors for Problemat	ic Hydric Soils ³ :	
L.F. et a. e.	-1 (A 4)			Dalara		(4			
Histoso				Polyva	lue Below Su	rface (S8) (L	.RR S, I, U)	1 cm Mu	ICK (A9) (LRR O)		
HISTIC E	Histic Epipedon (A2)					59) (LRR S,	1, U) <u> </u>	2 cm Mu	ICK (A10) (LRR S)		
Black H	Histic (A3)			Loamy	Mucky Miner	al (F1) (LRR	. (0)	Reduced	d Vertic (F18) (Out	side MLRA 150A, B)	
Hydrog	gen Sulfide (A4)			Loamy	Gleyed Matri	x (F2)		Piedmor	nt Floodplain Soils	(F19) (LRR P, S, T)	
Stratifie	ed Layers (A5)			Deplete	ed Matrix (F3)		_	Anomalo	Anomalous Bright Loamy Soils (F20)		
Organi	c Bodies (A6) (L	.RR P, T,	U)	Redox	Dark Surface	(F6)		(MLRA 153B)			
5 cm N	Aucky Mineral (A	P, T, U)	Deplete	ed Dark Surfa	ice (F7)	_	Red Par	ent Material (TF2)			
Muck Presence (A8) (LRR U) Redox					Depressions	(F8)	_	Very Sh	allow Dark Surface	e (TF12)	
1 cm N	1 cm Muck (A9) (LRR P, T) Marl (F				10) (LRR U)		_	Other (E	xplain in Remarks)	
Deplete	ed Below Dark S	Surface (A	11)	Deplete	ed Ochric (F1	1) (MLRA 1	51)				
Thick E	Dark Surface (A	12)		Iron-Ma	Manganese Masses (F12) (LRR O, P, T)			³ Indicators of hydrophytic vegetation and			
Coast I	Prairie Redox (A	(16) (MLR	A 150A)	Umbric	Surface (F13	B) (LRR P, T	, U)	wetland hydrology must be present, unless			
Sandy	Mucky Mineral	(S1) (LRR	O, S)	Delta C	Ochric (F17) (MLRA 151)		disturb	ed or problematic.		
Sandy	Gleyed Matrix (S4)		Reduce	ed Vertic (F18	B) (MLRA 15	0A, 150B)				
Sandy	Redox (S5)			Piedmo	ont Floodplair	ns Soils (F19					
Strippe	ed Matrix (S6)			Anoma	nalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark S	Surface (S7) (LR	R P, S, T,	U)								
Restrictive	Layer (if observ	ved):									
	Type:				Hyd	ric Soil Pre	sent?	Yes	No	Х	
Depth (i	inches):										
	· · ·										
Remarks:											
East of point	t 106 near wet 4										

Project/Site: BARC Traffic Mitigation	City/County: Prince George's Sampling Date: 05/12/21
Applicant/Owner: BARC	State: MD Sampling Point: DP-107
Investigator(s): DRC/LEJ	Section, Township, Range:
Landform (hillslope, terrace, etc.): Roadside floodplain Local relie	ef (concave, convex, none): Sloped Slope (%): 2
Subregion (LRR or MLRA): LRR R Lat: 39	
Soil Map Unit Name: Christiana and Downer	NWI classification: PEM
Are climatic/hydrologic conditions on the site typical for this time of year	ar? Yes X No (If no, explain in Remarks)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pro-	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point	int locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Surface Water Present?	Yes	No	Х	Depth (inches):					
Water Table Present?	Yes	No	Х	Depth (inches):					
Saturation Present?					Wetland Hydrology				
(includes capillary fringe)	Yes	No	Х	Depth (inches):	Present?	Yes	Х	No	
1									
Describe Recorded Data (s	tream ga	uge, monite	oring	well, aerial photos, previous i	inspections), if available:				
Describe Recorded Data (s Remarks:	tream ga	auge, monit	oring	well, aerial photos, previous i	inspections), if available:				

VEGETATION (Five Strata) - Use scientific names of plants

VEG	ETATION (Five Strata) - Use scientific names	s of plants.			Sampling Point: 107
		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree	Stratum (Plot Size: 20-foot radius plot)	% Cover	Species?	Status	
1.	Nyssa sylvatica	20	Y	FAC	Number of Dominant Species That
2.	Acer rubrum	30	Y	FAC	Are OBL, FACW, or FAC: 6 (A)
3.	Quercus alba	10	N	FACU	
4.	Magnolia virginiana	5	N	FACW	Total Number of Dominant Species
5.	Liquidambar styraciflua	10	N	FAC	Across All Strata: 12 (B)
6.					(2)
		75	= Total Cover		Percent of Dominant Species That
	50% of total cover:	37.5	20% of total cover:	15	Are OBL FACW or FAC: 50 (A/B)
Sap	ing Stratum (Plot Size: 20-foot radius				
plot)	<u></u>				Prevalence Index worksheet:
<u>1.</u>	Fagus grandifolia	10	Y	FACU	Total % Cover of: Multiply by:
2	Nyssa sylvatica	5	- <u>·</u> · · · · · · · · · · · · · · · · · ·	FAC	OBL species $x = 1 = 1$
2. २	Ouercus alba	5	- <u> </u>	FACU	
J. ⊿	Chioponthus virginious	5	- <u> </u>	FACU	
4. -	Chionaninus virginicus	5	- <u> </u>	FACU	
5.					
6.					UPL species x 5 =
		25	= Total Cover		Column Totals: (A) (B)
	50% of total cover:	12.5	20% of total cover:	5	
					Prevalence Index = B/A =
Shru	<u>ıb Stratum</u> (Plot Size: <u>20-foot radius plot)</u>				
1.	llex verticillata	20	Y	FACW	Hydrophytic Vegetation Indicators:
2.	Lonicera tartarica	5	Y	FACU	1 - Rapid Test for Hydrophytic Vegetation
3.					X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.					Problematic Hydrophytic Vegetation ¹
6.					
-		25	= Total Cover		
	50% of total cover:	12.5	20% of total cover:	5	(Explain)
					¹ Indicators of hydric soil and wetland hydrology must be
					present, unless disturbed or problematic.
Hert	Stratum (Plot Size: 10-foot radius plot)				F
1		05		540	Definitions of Five Vegetation Strata:
1.	Microstegium vinimeum	35	Y	FAC	
2.	Arisaema triphyllum	10	N	FACW	Tree - Woody plants, excluding woody vines,
3.	Toxicodendron radicans	5	<u> </u>	FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6
					cm) or larger in diameter at breast height (DBH).
	Podophyllum peltatum	•		FAOL	Conting Mandy plants, evoluting wood wines
4.		8	<u> </u>	FACU	approximately 20 ft (6 m) or more in height and less than 3
5.	Rubus allegheniensis	5	<u>N</u>	UPL	in (7.6 cm) DBH.
6.	Onoclea sensibilis	10	<u>N</u>	FACW	
7.					Shrub – Woody plants, excluding woody vines,
8.					approximately 3 to 20 ft (1 to 6 m) in height.
9.					
10.					Herb - All herbaceous (non-woody) plants, including
11.					nerbaceous vines, regardless of size, and woody plants,
		73	= Total Cover		height
			-		noight
				14.6	Woody vine - All woody vines, regardless of height.
	50% of total cover:	36.5	20% of total cover:		
Woc	dy Vine Stratum (Plot Size: 20-foot radius plot)				
1.	Smilax rotundifolia	10	Y	FAC	
2.	Parthenocissus guinguefolia	10	Y	FACU	
3.	Lonicera japonica	10	Y	FACU	Remarks: (if observed, list morphological adaptations
					below.)
			_ ·		,
		30	= Total Cover		
	50% of total cover:	15	20% of total cover:	6	Hydrophytic Yes X No
					Vegetation
					Present?

Profile Desc	cription: (Descr	ibe to the	e depth needed	l to doc	ument the in	dicator or o	confirm the ab	sence of indicators.)
	Matrix	(Redox	Features			
Depth	Color		Color					
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Textu	re Remarks
1-3"	10YR 2/1						Sandy lo	pam
4-7"	10YR 2/2	70	10YR 5/3	30	С	М	Sandy lo	pam
7-12	10YR 2/2	50	7.5 YR 5/6	20	С	М	Loamy sand	l
							. <u> </u>	
					·			
¹ Type: C=Co	oncentration, D=I	Depletion,	RM=Reduced	Matrix,	MS=Masked	Sand Grains	s. ² Location: PL	=Pore Lining, M=Matrix
Hydric Soil	Indicators:							Indicators for Problematic Hydric Soils ³ :
History	ol (A1)			Polya		rfaco (S8) (I	PPSTIN	1 cm Muck (AQ) (I PP O)
	UI (AT) Enineden (AO)			Polyva		nace (56) (L	- KK 5, 1, U)	
	Epipedon (A2)				ark Surface (S	59) (LKK S,	·, ·)	
Black I	Histic (A3)			Loamy	Mucky Miner	ai (⊢1) (LRF	(0)	Reduced Vertic (F18) (Outside MLRA 150A,
Hydrog	gen Sulfide (A4)			Loamy	Gleyed Matri	x (F2)	_	Piedmont Floodplain Soils (F19) (LRR P, S, 1
Stratifi	ed Layers (A5)		X	Deplet	ed Matrix (F3)		_	Anomalous Bright Loamy Soils (F20)
Organi	ic Bodies (A6) (L	RR P, T,	U)	Redox	Dark Surface	(F6)		(MLRA 153B)
5 cm N	/lucky Mineral (A	7) (LRR F	P, T, U)	Deplet	ed Dark Surfa	ice (F7)		Red Parent Material (TF2)
Muck F	Presence (A8) (L	RR U)		Redox	Depressions	(F8)		Very Shallow Dark Surface (TF12)
1 cm N	/luck (A9) (LRR I	P, T)		Marl (F	10) (LRR U)		_	Other (Explain in Remarks)
Deplet	ed Below Dark S	urface (A	11)	Deplet	ed Ochric (F1	1) (MLRA 1	51) <u> </u>	
Thick [Dark Surface (A1	2)	·	Iron-M	anganese Ma	sses (F12) (LRR O, P, T)	indiantary of hydrophytic vegetation and
Coast	Prairie Redox (A	, 16) (MLR	A 150A)	Umbrid	: Surface (F13	3) (LRR P. T	. U)	wetland bydrology must be present upless
Sandy	Mucky Mineral (S1) (I RR	0.5)	Delta ()chric (F17) (MI RA 151)	, -,	disturbed or problematic
Sandy	Gleved Matrix (9	24)		Reduc	ed Vertic (F18		0A 150B)	
Sandy)		Diadm	eu Venic (l'ic		NA, 1306)	
Sanuy				Anoma) 104 4520 452D)
	ed Matrix (S6)			Anoma	lious Bright Lo	bamy Solis (F20) (MLRA 14	19A, 153C, 153D)
Dark S	Surface (S7) (LRI	КΡ, S , I,	U)					
Restrictive	Layer (if observ	ved):						
	Type:				Hyd	ric Soil Pre	sent?	Yes X No
Depth ((inches):							
	· · ·							
Remarks:								
1								
More sand fu	urther down							
Much lighter	matrix at bottom	1						
1								

	SEP Tramic	wiitig	ation				City/Cou	unty:	Prince G	George's	Sampling Da	ite:	05/12-21
Applicant/Owner:	BARC						State:	MD		Sampling Point	DP-108		
Investigator(s):	DRC/LE	J					Section,	Townsh	nip, Range	:			
Landform (hillslope,	terrace, e	tc.):	Floodplai	n	Local	relief (co	oncave, o	convex, i	none):	Concave	Slope (%):	2	
Subregion (LRR or I	MLRA):	LRR	R		Lat:	39.02	1828		Long:	-76.901856	Dat	um:	NAD 83
Soil Map Unit Name	: Chris	stiana	and Dowr	ner						NWI	classification	:	PFO
Are climatic/hydrolog	gic conditi	ons o	n the site t	ypical fo	r this time c	of year?		Yes	s <u>X</u>	No	(If no, explain	n in Re	emarks)
Are Vegetation	, Soil		, or Hydro	logy	significa	antly dist	turbed?	Are "N	Normal Cir	rcumstances" presen	t? Yes	Х	No
Are Vegetation	, Soil		, or Hydro	logy	naturall	ly proble	matic?	(If ne	eded, exp	lain any answers in F	Remarks.)		
SUMMARY OF FIN	DINGS - A	Attach	i site map	showin	g sampling	g point l	ocations	s, transe	ects, impo	ortant features, etc.			
				Ň					<u> </u>				
Hydrophytic Vegetat	tion Prese	nt?	Yes	X	No			Is the	e Sampleo	d Area			
Hydrophytic Vegetat Hydric Soil Present?	tion Prese ?	nt?	Yes Yes	X X	No No			ls the withi	e Sampleo in a Wetla	d Area nd? Yes _	X No	0	
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	X X X	No No No			ls the withi	e Sampleo n a Wetla	d Area nd? Yes _	<u>X</u> No	o	
Hydrophytic Vegetat Hydric Soil Present? Wetland Hydrology I Remarks:	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	X X X	No No			Is the withi	e Sampleo in a Wetla	d Area nd? Yes _	<u>X</u> No	•	
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology Remarks: Wetland 5	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	X X X	No No			Is the	e Sampleo in a Wetla	d Area nd? Yes _	<u>X</u> No	o	
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology Remarks: Wetland 5	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	x x x	No No			Is the	e Sampleo	d Area nd? Yes _	<u>X</u> No	•	
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology Remarks: Wetland 5	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	X X X	No No			Is the	e Sampleo in a Wetla	d Area nd? Yes _	<u>X</u> No	o	
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I Remarks: Wetland 5 HYDROLOGY	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	X X X	No No			Is the	e Sampleo in a Wetla	d Area nd? Yes _	<u>X</u> No	o	
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology Remarks: Wetland 5 HYDROLOGY Wetland Hydrology	tion Prese ? Present?	nt?	Yes _ Yes _ Yes _	X X X	No No			Is the within	e Sampleo	d Area nd? Yes	X No	0	wo required)
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I Remarks: Wetland 5 HYDROLOGY Wetland Hydrology Primary Indicators (m	tion Prese ? Present? Indicator	nt?	Yes _ Yes _ Yes _	X X X	No No 	<u></u>		Is the withi	e Sampleo	d Area nd? Yes	X No	o	wo required)
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I Remarks: Wetland 5 HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Wate	tion Prese ? Present? Indicator hinimum of or (A1)	nt? s: f one i	Yes _ Yes _ Yes _	X X X	No No No 	<u>v)</u> auna (B1	3)	Is the withi	e Sampleo	d Area nd? Yes	X No	um of t	wo required)
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I Remarks: Wetland 5 HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Wate High Water Ta	tion Prese ? Present? Indicator hinimum of rr (A1) able (A2)	nt?	Yes _ Yes _ Yes _	X X X ; check a	Aquatic Fa	<u>γ)</u> auna (B1 sists (B1;	3) 5) (LRR 1	U)	e Sampleo	d Area nd? Yes _ 	X No cators (minimu pil Cracks (B6) /egetated Con Patterns (B10)	um of t	wo required) Surface (B8)
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I Remarks: Wetland 5 HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Wate High Water Ta Saturation (A3	tion Prese ? Present? Indicator hinimum of ar (A1) able (A2) 3)	nt? s: f one i	Yes _ Yes _ Yes _	X X X ; check a	Aquatic Fa Marl Depo Hydrogen	<u>v)</u> auna (B1 sits (B15 Sulfide (3) 5) (LRR Odor (C1	U)	e Sampleo	d Area nd? Yes	X No cators (minimu pil Cracks (B6) (egetated Con Patterns (B10) Lines (B16)	um of t	wo required) Surface (B8)
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology Remarks: Wetland 5 HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Wate High Water Ta Saturation (A3 Water Marks (tion Prese ? Present? Indicator hinimum of or (A1) able (A2) 3) (B1)	nt?	Yes _ Yes _ Yes _	X X X ; check a	Aquatic Fa Marl Depo Hydrogen Oxidized F	<u>γ)</u> auna (B1 sits (B1 Sulfide (Rhizosph	3) 5) (LRR Odor (C1 neres alo	U) ng Living	e Sampleo in a Wetla	d Area nd? Yes	X No cators (minimu pil Cracks (B6) 'egetated Con Patterns (B10) Lines (B16) n Water Table	um of 1) icave 3	wo required) Surface (B8)
Hydrophytic Vegetal Hydric Soil Present? Wetland Hydrology I Remarks: Wetland 5 HYDROLOGY Wetland Hydrology Primary Indicators (m Surface Wate High Water Ta Saturation (A3 Water Marks (Sediment Dep	tion Prese ? Present? Indicator hinimum of or (A1) able (A2) 3) (B1) posits (B2)	nt? s: (one i	Yes _ Yes _ Yes _	X X X ; check a	Aquatic Fa Marl Depo Hydrogen Oxidized F	<u>v)</u> auna (B1 sits (B1 Sulfide (Rhizosph of Reduc	3) 5) (LRR I Odor (C1 heres alo ced Iron	U) ng Living (C4)	e Sampleo in a Wetla	d Area nd? Yes	X No cators (minimu pil Cracks (B6) (egetated Con Patterns (B10) Lines (B16) n Water Table urrows (C8)	um of t) hcave : (C2)	wo required) Surface (B8)

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:									
Surface Water Present?	Yes	No	Х	Depth (inches):					
Water Table Present?	Yes	No	Х	Depth (inches):					
Saturation Present?	_				Wetland Hydrology				
(includes capillary fringe)	Yes	No	Х	Depth (inches):	Present?	Yes	Х	No	
Describe Recorded Data (s	stream ga	auge, monite	oring	well, aerial photos, previous	inspections), if available:				
Remarks:									
1									

VEG	ETATION (Five Strata) - Use scientific name	s of plants.			Sampling Point: 108
_		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree	Stratum (Plot Size: <u>20-foot radius plot)</u>	% Cover	Species?	Status	
1.	Fagus grandifolia	25	<u> </u>	FACU	Number of Dominant Species That
2.	Quercus phellos	20	Y	FACW	Are OBL, FACW, or FAC: (A)
3.					
4.					Total Number of Dominant Species
5.					Across All Strata:5_ (B)
6.					
		55	= Total Cover		Percent of Dominant Species That
	50% of total cover:	27.5	20% of total cover:	11	Are OBL, FACW, or FAC: 80 (A/B)
~					Drevelance in dev workels est
Sapl	ing Stratum (Plot Size: 20-foot radius plot)	00	X	540	
1.		30	- <u> </u>	FAC	<u>I otal % Cover ot:</u> <u>Multiply by:</u>
2.	Lindera benzoin	10	Y	FACW	
3.					FACW species x 2 =
4.					FAC species x 3 =
5.					FACU species x 4 =
6.			<u> </u>		UPL species x 5 =
		40	= Total Cover		Column Totals: (A) (B)
	50% of total cover:	20	20% of total cover:	8	
					Prevalence Index = B/A =
Shru	b Stratum (Plot Size: 20-foot radius plot)				
1.					Hydrophytic Vegetation Indicators:
2.					1 - Rapid Test for Hydrophytic Vegetation
З.					X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.				<u> </u>	Problematic Hydrophytic Vegetation ¹
6.			- <u> </u>		
			= Total Cover		
	50% of total cover:		20% of total cover:		(Explain)
			-		¹ Indicators of hydric soil and wetland hydrology must be
					present, unless disturbed or problematic.
Herk	<u>) Stratum</u> (Plot Size: <u>10-foot radius plot)</u>				
1.	Symplocarpus foetidus	70	Y	OBL	Definitions of Five Vegetation Strata:
2.	Lindera benzoin	10	N	FACW	Tree - Woody plants, excluding woody vines,
3.	Impatiens capensis	20	N	FACW	approximately 20 ft (6 m) or more in height and 3 in.
4.	Microstegium vinimeum	10	N	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
5.	Geum canadense	15	N	FAC	Sapling - Woody plants, excluding woody vines,
6.					approximately 20 ft (6 m) or more in height and less
7.			- <u> </u>		than 3 in (7.6 cm) DBH.
8.					Shrub - Woody plants, excluding woody vines.
9.			<u> </u>		approximately 3 to 20 ft (1 to 6 m) in height.
10.					
11					herbaceous vines, regardless of size, and woody
		125	= Total Cover		plants, except woody vines, less than approximately
	50% of total cover:	62.5	20% of total cover	25	3 ft (1 m) in height.
		02.0			Woody vine - All woody vines, regardless of height
Wor	dv Vine Stratum (Plot Size: 20-foot radius plot)				
1	ay the oracan (For 0/20. 20-100 radius plot)	<u>.</u>			
י. כ					
∠. 2					Remarks: (if observed, list morphological
э.					adaptations below.)
			T-1-1-0		· · · · ·
					Hydronbytic Y Y N
	50% of total cover:		20% of total cover:	. <u> </u>	Vegetation
					Present?

Depth (Inches) Matrix (Moist) Color (Moist) Color (Moist) Color (Moist) Type ¹ Loc ² Texture Remarks 1-2' 10YR 5/1 70 7.5YR 4/6 30 C M Sandy clay loam	Profile Desc	cription: (Descr	ibe to th	e depth neede	d to doc	ument the in	dicator or o	confirm the ab	sence of in	dicators.)	
Depint Color Color Type1 Loc2 Texture Remarks 1-2 10YR 4/2 100	Dooth	Matrix	x	Color	Redox	Features					
Link lasy (mots) n Type Loc Taxtue Refrains 3-5° 10YR 4/2 100 7.5YR 4/6 30 C M Sandy clay loam 5-12" 10YR 5/2 60 7.5YR 4/6 30 C M Sandy clay loam 5-12" 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5-12" 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam	Depth (Inchoo)	(Moiot)	0/	(Moiot)	0/	Turnel	1.002	Toxtu	r0		Domorko
1-2 101YR 5/1 100 Safty Cat Vision 3-5° 10YR 5/1 70 7.5YR 3/4 40 C M Sandy clay loam 5-12° 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5-12° 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5-12° 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5-12° 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5-12° 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 5-12° 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam 10 10XR 5/1 10 10 Pleature Sandy clay loam Indicators 11 110 110 10 Pleature 10 Muck All 10 Ic Muck All 10 Ic Muck All 10 Ic Muck All 10 Ic Muck All 10<			70	(IVIOISI)	70	Туре	LUC	Construction			Remains
3-5 10YR b/1 70 7.5YR 3/4 40 C M Sandy clay loam 5-12 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam	1-2	10YR 4/2	700					Sandy cla	y loam		
5-12* 10YR 5/2 60 7.5YR 3/4 40 C M Sandy clay loam ** ** ** ** ** Sandy clay loam ** ** **	3-5″	10YR 5/1	70	7.5YR 4/6	30	<u> </u>	<u> </u>	Sandy cla	y loam		
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Graphic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Uery Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Uery Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T, U) Depleted Ochrin (F11) (MLRA 151) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F20) (M	5-12"	10YR 5/2	60	7.5YR 3/4	40	C	M	Sandy clay	oam		
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A1) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A6) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F6) (MLRA 153B) Very Shallow Dark Surface (TF12) Muck Presence (A8) (LRR U) Red ox Depressions (F8) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thinc-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delate Ochric (F13) (MLRA 150A), 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 149A), 153C, 153D) Sandy Redox (S5) Piedmont Floodplains Soils (F20) (MLRA 149A), 153C, 153											
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 2 cm Muck (A9) (LRR O) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F11) Red Parent Material (TF2) Muck Presence (A8) (LRR V, T) Redox Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR V, T) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Suffide (A4) Loamy Mucky Mineral (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Granic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Mart (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mecky Mineral (S1) (LRR O, S) Detled Ochric (F13) (MLRA 150A, 150B) Sandy Mecky Mineral (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Siturbed or problematic. Sandy Gleyed Matrix (S4) Reduce											
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Red Parent Material (TF2) Muck (A9) (LRR P, T) Depleted Dark Surface (F7) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Ochric (F11) (MLRA 151) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A, 150B) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Medox (S5) Piedmont Floodplains Soils (F19)											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR O) Black Histic (A3) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Suffide (A4) Loamy Gleyed Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless Sandy Mecky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 149A), 153C, 153D) Sandy Redox (S5) Piedmont Floodplains Soils (F20) (
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thino-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplains Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) Sandy Gleyed Matrix (S6) Piedmont Floodplains Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) Murka 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) </td <td>¹Type: C=Co</td> <td>oncentration, D=</td> <td>Depletior</td> <td>, RM=Reduced</td> <td>Matrix,</td> <td>MS=Masked</td> <td>Sand Grains</td> <td>s. ²Location: Pl</td> <td>_=Pore Linir</td> <td>ng, M=Matrix</td> <td></td>	¹ Type: C=Co	oncentration, D=	Depletior	, RM=Reduced	Matrix,	MS=Masked	Sand Grains	s. ² Location: Pl	_=Pore Linir	ng, M=Matrix	
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR V) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A), 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Hydric Soil	Indicators:							Indica	ators for Prob	plematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Sufrace (S8) (LRK S, T, U) 1 cm Muck (A9) (LRK O) Histos Epipedon (A2) Thin Dark Surface (S9) (LRR O) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Solis (F19) (LRR P, S, T) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Depleted Relow Lark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) alicitators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) anomalous Bright Loamy Soils (F20) (MLRA 149A) Sandy Redox (S5) Piedmont Floodplains Soils (F20) (MLRA 149A), 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): <t< td=""><td>L Parta a</td><td>-1 () ()</td><td></td><td></td><td>Dahara</td><td></td><td>·((00) (</td><td></td><td>4 N</td><td>Aug. (A.O.) (I. D.</td><td></td></t<>	L Parta a	-1 () ()			Dahara		·((00) (4 N	Aug. (A.O.) (I. D.	
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, I, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F2) Piedmont Floodplain Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T, U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) other (Explain in Remarks) Depleted Below Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) alndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A, 150B) alnomalous Bright Loamy Soils (F20) (MLRA 149A) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) alnomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy	Histoso	DI (A1)			Polyva	lue Below Su	rface (S8) (L		1 cm N	Muck (A9) (LR	R 0)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 150A, B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplains Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:	Histic E	Epipedon (A2)			Thin D	ark Surface (S	59) (LRR S ,	T, U) _	2 cm N	Muck (A10) (L	RR S)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A) Umbric Surface (F13) (MLRA 150A), 1000000000000000000000000000000000000	Black H	Histic (A3)			Loamy	Mucky Miner	al (F1) (LRF	(O) _	Reduc	ed Vertic (F18	B) (Outside MLRA 150A, B)
Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) *anomalous Bright Loamy Soils (F20) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 151) *anomalous Bright Loamy Soils (F12) Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 150A, 150B) *anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Mydric Soil Present? Yes X No Type:	Hydrog	gen Sulfide (A4)			Loamy	Gleyed Matri	x (F2)	-	Piedm	ont Floodplair	n Soils (F19) (LRR P, S, T)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Stratifie	ed Layers (A5)		<u>X</u>	Deplete	ed Matrix (F3))	_	Anoma	alous Bright Lo	oamy Soils (F20)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR O, P, T) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) disturbed or problematic. Stripped Matrix (S6) Piedmont Floodplains Soils (F20) (MLRA 149A), 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Organi	c Bodies (A6) (L	.RR P, T,	U)	Redox	Dark Surface	e (F6)		(ML	.RA 153B)	
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) disturbed or problematic. Stripped Matrix (S6) Piedmont Floodplains Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	5 cm N	lucky Mineral (A	7) (LRR	P, T, U)	Deplete	ed Dark Surfa	ice (F7)	_	Red P	arent Material	(TF2)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Muck F	Presence (A8) (L	.RR U)		Redox	Depressions	(F8)	-	Very S	Shallow Dark S	Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplains Soils (F19) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	1 cm N	luck (A9) (LRR	Ρ, Τ)		Marl (F	10) (LRR U)		_	Other	(Explain in Re	emarks)
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) etal onomalous Bright Loamy Soils (F19) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Deplete	ed Below Dark S	Surface (A	A11)	Deplete	ed Ochric (F1	1) (MLRA 1	51)			
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Thick D	Dark Surface (A1	12)		Iron-Ma	anganese Ma	sses (F12)	LRR O, P, T)	³ Indic	cators of hydro	ophytic vegetation and
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No	Coast I	Prairie Redox (A	16) (MLF	RA 150A)	Umbric	Surface (F13	B) (LRR P, T	', U)	wetla	ind hydrology	must be present, unless
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No No	Sandy	Mucky Mineral ((S1) (LRF	R O, S)	Delta C	Dchric (F17) (I	MLRA 151)		distu	rbed or proble	matic.
Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No No	Sandy	Gleyed Matrix (S4)		Reduce	ed Vertic (F18	B) (MLRA 15	60A, 150B)			
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Hydric Soil Present? Yes X No Depth (inches):	Sandy	Redox (S5)			Piedmo	ont Floodplair	ns Soils (F19) (MLRA 149A)		
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches):	Strippe	d Matrix (S6)			Anoma	lous Bright Lo	oamy Soils (F20) (MLRA 14	19A, 153C,	153D)	
Restrictive Layer (if observed): Type: Yes X No Depth (inches):	Dark S	urface (S7) (LR	R P, S, T	, U)		Ū.		, (
Restrictive Layer (if observed): Type: Hydric Soil Present? Yes X No Depth (inches):						1					
Type: Hydric Soil Present? Yes X No Depth (inches):	Restrictive I	Layer (if observ	ved):								
Depth (inches):		Туре:				Hyd	ric Soil Pre	sent?	Yes	Х	No
	Depth (i	inches):									

Project/Site: BEP Traffic Mitigation	City/County: Prince George's Sampling Date: 05.14.21								
Applicant/Owner: BARC	State:Md Sampling Point:DP-109								
Investigator(s): DRC/LEJ	Section, Township, Range:								
Landform (hillslope, terrace, etc.): Floodplain Local reli	f (concave, convex, none): Flat Slope (%): 1								
Subregion (LRR or MLRA): LRR R Lat: 3	.022274 Long: -76.901565 Datum: NAD83								
Soil Map Unit Name: Christiana and Downer	NWI classification: UPL								
Are climatic/hydrologic conditions on the site typical for this time of ye	r? Yes X No (If no, explain in Remarks)								
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No								
Are Vegetation, Soil, or Hydrology naturally p	blematic? (If needed, explain any answers in Remarks.)								
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area								
Hydric Soil Present? Yes No	X within a Wetland? Yes No X								
Wetland Hydrology Present? Yes No	<u>x</u>								
Remarks:									
Wetland 5 FSD Stand 4 Plot 1 spot									
HYDROLOGY									
Primary Indicators:	Surface Soil Creake (PC)								
<u>Finally indicators (minimum of one is required, check all that apply)</u>	(P12) Surface (P8)								
High Water Table (A2)	5) Sparsely Vegetated Concave Sunace (B								
Saturation (A2)	Oder (C1) Moss Trim Lines (B16)								
Saturation (AS) Hydrogen Sur	bares clong Living Poets (C2)								
Videl Marks (BT) Oxidized RTIZ	by-Season water rable (C2)								
Sediment Deposits (D2) Presence of P	cted from (C4) Crayinsh Bullows (C6)								
Dhit Deposits (B3) Recent from R	Saturation Visible on Aerian Imagely (C9)								
Iron Doposite (B5)	in Romarks) Shallow Aquitard (D2)								
Inundation Visible on Aerial Imageny (B7)	FAC-Neutral Test (D5)								
	Sphagnum Moss (D8) (LBB T 11)								
Field Observations:									
Surface Water Present? Yes No X Depth (inches									
Water Table Present? Yes No X Depth (inches									
Saturation Present?	Wetland Hydrology								
(includes capillary fringe) Yes <u>No X</u> Depth (inches	Present? Yes No X								

Remarks:

Upland plot for wet 4

FGETATION (Five Strata) - Use scientific names of plants

VEG	ETATION (Five Strata) - Use scientific names of	of plants.			Sampling Point: 109
		Absolute	Dominant	Indicator	Dominance Test worksbeet:
Tree	Stratum (Plot Size: 20-foot radius plot)	% Cover	Species?	Status	
1.	Fagus grandifolia	60	Y	FACU	Number of Dominant Species That
2.	Liquidambar styraciflua	15	<u>N</u>	FACU	Are OBL, FACW, or FAC: (A)
3.	Quercus alba	25	<u>N</u>	UPL	
4.	Acer rubrum	5	<u>N</u>	FAC	Total Number of Dominant Species
5.			<u>_</u>		Across All Strata: 7 (B)
6.			<u>_</u>		
		105	= Total Cover		Percent of Dominant Species That
	50% of total cover:	52.5	20% of total cover:	21	Are OBL, FACW, or FAC: 57 (A/B)
<u>Sapl</u>	ing Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.	Lindera benzoin	35	Y	FACW	Total % Cover of: Multiply by:
2.					OBL species x 1 =
3.					FACW species x 2 =
4.			<u> </u>		FAC species x 3 =
5.			<u> </u>		FACU species x 4 =
6.			<u>_</u>		UPL species x 5 =
		35	= Total Cover		Column Totals: (A) (B)
	50% of total cover:	17.5	20% of total cover:	7	
			-		Prevalence Index = B/A =
Shru	b Stratum (Plot Size: 20-foot radius plot)				
1.					Hydrophytic Vegetation Indicators:
2.					1 - Rapid Test for Hydrophytic Vegetation
3.					X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.					Problematic Hydrophytic Vegetation ¹
6.					
			= Total Cover		
	50% of total cover:		20% of total cover:		(Explain)
			-		¹ Indicators of hydric soil and wetland hydrology must be
					present, unless disturbed or problematic.
Herb	<u>Stratum</u> (Plot Size: <u>10-foot radius plot)</u>				
					Definitions of Five Vegetation Strata:
4	Podopnylium peltatum	F	V		Tree - Woody plants, excluding woody vines
1.		Э	<u> </u>	FACU	approximately 20 ft (6 m) or more in height and 3 in.
2	Ariaaama trinhullum	5	Y	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
2.	Amphicompose brostosto	5	- <u> </u>	FAC	Senling Woody planta avaluding woody vince
J.	Amphicarpaea bracleala	0		170	approximately 20 ft (6 m) or more in height and less
ч . Б					than 3 in (7.6 cm) DBH.
5. 6					Chrysh Weather plants and uting was dowing a
0. 7				<u> </u>	approximately 3 to 20 ft (1 to 6 m) in height
<i>1</i> .					
o. 0					Herb - All herbaceous (non-woody) plants, including
9.					herbaceous vines, regardless of size, and woody
10.					ft (1 m) in height.
11.					
		15	= I otal Cover		Woody vine - All woody vines, regardless of height.
	50% of total cover:	7.5	20% of total cover:	3	
Woo	dy Vine Stratum (Plot Size: 20-foot radius plot)				
1.	Parthenocissus quinquefolia	6	<u> </u>	FACU	
2.	Smilax rotundifolia	15	Y	FAC	
3.	Lonicera japonica	10	Y	FACU	Remarks: (if observed, list morphological adaptations
				_	Delow.)
		31	= Total Cover		
	50% of total cover:	15.5	20% of total cover:	6.2	Hydrophytic Yes X No
			-		Vegetation
					Present?

Profile Desc	ription: (Descr	ibe to the	e depth neede	d to doc	ument the in	dicator or c	onfirm the ab	sence of ind	licators.)		
	Matri	x		Redox	Features						
Depth (Inchos)	Color (Moist)	0/	Color (Moist)	0/		loc^2	Territoria		Pom	arke	
1.3"		100		/0	туре	LUC	Texto		Sandy	loom	
1-3	10TR 3/2	100	100						Januy	aand	
4-12	101R 4/0		100						Loamy	Sanu	
					·						
¹ Type: C=Co	ncentration, D=	Depletion	, RM=Reduce	d Matrix,	MS=Masked S	Sand Grains	² Location: P	L=Pore Lining	g, M=Matrix		
		•									
Hydric Soil	Indicators:							Indicat	ors for Problematic I	lydric Soils ³ :	
Histoso	ol (A1)			Polyva	lue Below Sur	ue Below Surface (S8) (LRR S, T, U)			1 cm Muck (A9) (LRR O)		
Histic E	Epipedon (A2)			Thin D	ark Surface (S	69) (LRR S, ⁻	T, U)	2 cm M	2 cm Muck (A10) (LRR S)		
Black H	Histic (A3)			Loamy	Mucky Miner	al (F1) (LRR	0)	Reduce	d Vertic (F18) (Outsic	le MLRA 150A, B)	
Hydrog	en Sulfide (A4)			_ Loamy	Gleyed Matri	x (F2)	-	Piedmo	Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratifie	ed Layers (A5)			Deplete	ed Matrix (F3)	1	-	Anomal	Anomalous Bright Loamy Soils (F20)		
Organio	c Bodies (A6) (L	.RR P, T,	U)	Redox	Dark Surface	(F6)	-	(MLR	(MLRA 153B)		
5 cm M	lucky Mineral (A	(17) (LRR F	P, T, U)	Deplete	ed Dark Surfa	ce (F7)		Red Pa	Red Parent Material (TF2)		
Muck F	Presence (A8) (L	_RR U)		Redox	Depressions (F8)			Very Sh	Very Shallow Dark Surface (TF12)		
1 cm M	luck (A9) (LRR	P, T)		Marl (F	10) (LRR U)			Other (E	Other (Explain in Remarks)		
Deplete	Depleted Below Dark Surface (A11) Deplete				ed Ochric (F1	1) (MLRA 15	51)				
Thick D	Dark Surface (A	12)		Iron-Ma	anganese Masses (F12) (LRR O, P, T)			³ Indica	itors of hydrophytic ve	netation and	
Coast Prairie Redox (A16) (MLRA 150A) Umbric			c Surface (F13) (LRR P, T, U)			wetlan	wetland hydrology must be present. unless				
Sandy Mucky Mineral (S1) (LRR O, S) Delta			Delta C	a Ochric (F17) (MLRA 151)			disturb	disturbed or problematic.			
Sandy Gleyed Matrix (S4) Reduce			ced Vertic (F18) (MLRA 150A, 150B)								
Sandy	Sandy Redox (S5)				ont Floodplains Soils (F19) (MLRA 149A)						
Strippe	Stripped Matrix (S6) Anoma				alous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark Surface (S7) (LRR P, S, T, U)											
Restrictive I	laver (if observ	ved):									
	Type:				Hvd	ric Soil Pres	sent?	Yes	No	х	
Depth (i	Depth (inches):				,.						
Remarks:					l						
Sandy and d	ark soils, very h	omogeno	us								
Project/Site: BEP Traffic Miti	gation		City/County:	Prince Geo	rge's	Sampling Date:	06/02/2021				
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Applicant/Owner: BARC			State: MD		Sampling Point:	DP-110					
Investigator(s): DRC/LEJ			Section, Towr	nship, Range:							
Landform (hillslope, terrace, etc.):	Roadside floodp	lain Local relief ((concave, conve	x, none): co	oncave	Slope (%): 5					
Subregion (LRR or MLRA):	۲R	Lat: 39.0	32648	Long:	-76.900768	Datum:	NAD83				
Soil Map Unit Name: Christian	a and Downer				NWI	classification:	PFO				
Are climatic/hydrologic conditions	on the site typical f	or this time of year?	? \	′es X	No	(If no, explain in R	emarks)				
Are Vegetation, Soil	, or Hydrology	significantly di	isturbed? Are	e "Normal Circur	nstances" present	? Yes <u>X</u>	No				
Are Vegetation, Soil	, or Hydrology	naturally prob	lematic? (If	needed, explain	any answers in R	emarks.)					
SUMMARY OF FINDINGS - Attac	:h site map showi	ng sampling point	locations, tran	sects, importa	nt features, etc.						
Hydrophytic Vegetation Present?	Yes X	No	Is	the Sampled A	rea						
Hydric Soil Present?	Yes X	No	wi	thin a Wetland	? Yes	X No					
Wetland Hydrology Present?	Yes X	No									
Remarks:											
Wetland 3 DP Near perennial unnamed tributary	to Indian Creek										
HYDROLOGY											
Wetland Hydrology Indicators:					Secondary Indic	ators (minimum of	two required)				
Primary Indicators (minimum of one	is required; check	all that apply)			Surface So	il Cracks (B6)					
Surface Water (A1)		Aquatic Fauna (E	313)		Sparsely Ve	egetated Concave	Surface (B8)				
High Water Table (A2)		Marl Deposits (B	15) (LRR U)		Drainage P	atterns (B10)					
Saturation (A3)		Hydrogen Sulfide	e Odor (C1)		Moss Trim	Lines (B16)					
Water Marks (B1)		Oxidized Rhizos	oheres along Liv	ing Roots (C3)	Dry-Seasor	n Water Table (C2))				
Sediment Deposits (B2)		Presence of Red	uced Iron (C4)		Crayfish Bu	irrows (C8)					
Drift Deposits (B3)		Recent Iron Red	uction in Tilled S	ioils (C6)	Saturation V	Visible on Aerial In	nagery (C9)				
Algal Mat or Crust (B4)		Thin Muck Surface	ce (C7)		Geomorphi	c Position (D2)					
Iron Deposits (B5)		Other (Explain in	Remarks)		Shallow Aq	uitard (D3)					
Inundation Visible on Aerial	Imagery (B7)	-			FAC-Neutra	al Test (D5)					
X Water-Stained Leaves (B9)					Sphagnum	Moss (D8) (LRR 1	⁻ , U)				
Field Observations:											
Surrace water Present? Yes	No X	Depth (inches):									
vvater Table Present? Yes	NoX	Depth (inches):		Matlend	ludrologi						
(includes capillary fringe) Yes	NoX	Depth (inches):		Present?	Ye	s <u>X</u> No	o				

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) - Use scientific names of plants.

VEG	ETATION (Five Strata) - Use scientific names	of plants.			Sampling Point: 110
Tree	Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	Acer rubrum	35	Y	FAC	Number of Dominant Species That
2.	Quercus palustris	25	Y	FACW	Are OBL, FACW, or FAC: 8 (A)
3.	Liriodendron styraciflua	5	N	FAC	()
4.	Nyssa sylvatica	5	N	FAC	Total Number of Dominant Species
5.	Catalpa speciosa	5	N	FACU	Across All Strata: 6 (B)
6.					()
		75	= Total Cover		Percent of Dominant Species That
	50% of total cover:	37.5	20% of total cover:	15	Are OBL, FACW, or FAC: 75 (A/B)
	-		-		、
<u>Sapl</u>	ing Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.	Acer rurbrum	5	Y	FAC	Total % Cover of: Multiply by:
0	Platanus accidentalis	~	V		OBL species x 1 =
2.		Э	<u> </u>	FACW	
J.					FAC w species x 2 =
4.					FAC species x 3 =
5.					FACU species x 4 =
6.		40			$\begin{array}{c} \text{OPL species} \\ \text{Opluses} \\ \text{Table} \\ \end{array} $
		10		0	
	50% of total cover:	5	20% of total cover:	2	Provolence Index - P/A
0					Prevalence Index = B/A =
Shru	<u>Ib Stratum</u> (Plot Size: <u>20-foot radius plot)</u>	10		54.014	Hydrophytic Vocatation Indicators
1.	Lindera benzoin	40	<u> </u>	FACW	A Denid Test for Lludren butic Verstation
2.	Viburnum prunifolium	10	<u> </u>	FACU	1 - Rapid Test for Hydrophytic Vegetation
3.					X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.01
5.					
6.		50			
		50		10	(Explain)
	50% of total cover:	25	20% of total cover:	10	Indicators of hydric soil and wetland hydrology must be
					present, unless disturbed or problematic.
Herb	Stratum (Plot Size: 10-foot radius plot)				
1.	Toxicodendron radicans	10	Ν	FAC	Definitions of Five Vegetation Strata:
2		5		OBI	Tree Monthy planta avaluding woody vince
2. 3	Symplocal pus loelidus	15	- <u> </u>	FAC	approximately 20 ft (6 m) or more in height and 3 in.
0. ⊿		10		FACW	(7.6 cm) or larger in diameter at breast height (DBH).
т. 5		20	- <u> </u>	FACW	Senling Weedy plants, evaluding weedy vince
6.		20		TAON	approximately 20 ft (6 m) or more in height and less
0. 7					than 3 in (7.6 cm) DBH.
7. 8					Shruh – Woody plants, excluding woody vines
0. Q					approximately 3 to 20 ft (1 to 6 m) in height.
10					
10.					Herb - All herbaceous (non-woody) plants, including
	<u> </u>	60	- Total Covor		plants, except woody vines, less than approximately
	50% of total covor	20		12	3 ft (1 m) in height.
		30		12	Woody vine - All woody vines regardless of height
10/00	dy Vine Stratum (Plot Size: 20 feet radius plot)				Troody while - All woody vines, regardless of height.
1		F	N	EACU	
ו. ס		5	- <u> </u>		
∠. ?	Smilax rotundifolia	20	ĭ	FAU	Remarks: (if observed, list morphological
J.					adaptations below.)
			- Total Cauca		
	E00/ of total and and				Hydrophytic Yee Y No
					Vegetation Vegetation
					Present?

SOIL

Profile Desc	ription: (Descri	ibe to the	e depth needed	l to doc	ument the in	dicator or	confirm the ab	sence of indicators.)				
Matrix Redox			Features									
Depth	Color		Color									
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Textu	re Remarks				
0-4	10YR 3/2	100					loan	n				
4-10	10YR 4/2	70	7.5YR 4/4	30	С	М	Fine sand	y loam				
10-12	10YR 4/1	80	10YR 4/6	20	С	М	Clay loam					
	-		-				-					
¹ Type: C=Co	ncentration, D=I	Depletion,	, RM=Reduced	Matrix,	MS=Masked	Sand Grains	s. ² Location: PL	_=Pore Lining, M=Matrix				
Hydric Soil I	ndicators:							Indicators for Problematic Hydric Soils ³ :				
Histoso	I (A1)			Polyva	lue Below Su	rface (S8) (I	RRSTU)	1 cm Muck (A9) (I BB O)				
Histic E	ninedon (A2)				ark Surface (9	Sa) (I BB S	τ IN	2 cm Muck (A10) (I RR S)				
Black L	listic (A2)			Loomy	Mucky Minor	(E1) (I DI	·, ·, ·)	Boducod Vortic (E18) (Outside MLBA 150A				
Black I	an Sulfida (A4)			Loomy	Cloued Metri	ai (F1) (EN		Reduced Vehic (116) (Calside MERA 150A)				
Stratific			<u> </u>	Doplot	od Matrix (E2)	(1 <i>2)</i>	—	Anomalous Bright Learny Soils (F3) (ERR 1, 3,				
Organie	Stratified Layers (AS) X Deplete				Dark Surface		—	Anomaious Bright Loamy Solis (F20)				
Organic	Organic Bodies (A6) (LRR P, 1, 0) Redox				od Dork Surfo	(I U)		(IVILICA 1330) Red Derent Meterial (TE2)				
S CHI W	5 cm Mucky Mineral (A7) (LRR P, I, U) Deplete				Dopropoiono		_	Very Shallow Dark Surface (TE12)				
						(го)	-	Other (Explain in Remarks)				
		P, I)		Mari (F	(LRR U)			Other (Explain in Remarks)				
	ed Below Dark S	ourrace (A	.11)	Deplete	ed Ochric (F1	1) (MILRA 1	51) (100 0 0 T)					
	Park Sufface (A1	2)		Iron-Ma	anganese Ma	sses (F12) ((LRR 0, P, T)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless				
Coast F	Prairie Redox (A	16) (MLR	A 150A)	Umbric	Surface (F13	3) (LRR P, I	, U)					
Sandy	Mucky Mineral (S1) (LRR	0, S)	Delta C	Dchric (F17) (I	MLRA 151)		disturbed or problematic.				
Sandy	Gleyed Matrix (S	54)		Reduce	ed Vertic (F18	B) (MLRA 15	50A, 150B)					
Sandy	Redox (S5)			Piedmo	nont Floodplains Soils (F19) (MLRA 149A)							
Strippe	d Matrix (S6)			Anoma	nalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)							
Dark S	urface (S7) (LRF	R P, S, T,	U)									
Restrictive L	ayer (if observ	ved):										
	Туре:				Hyd	lric Soil Pre	esent?	Yes X No				
Depth (i	nches):											
Remarks:												

Project/Site: BEP Traffic Mitig	jation		City/County	: Prince G	George's	Sampling Date:	05/12/2021	
Applicant/Owner: BARC			State: M	D	Sampling Poin	it: DP-111		
Investigator(s): DRC/LEJ			Section, To	wnship, Range	:			
Landform (hillslope, terrace, etc.):	floodplain	Local relief (- concave, con	vex, none):	concave	Slope (%): 4		
Subregion (LRR or MLRA): LRR	R	Lat: 39.03	31697	Long:	-76.899716	- Datum:	NAD83	
Soil Map Unit Name: Christian	a and Downer				NW	/I classification:	PFO	
Are climatic/bydrologic conditions of	on the site typical f	or this time of year?)	Yes X	No	(If no, explain in F	emarks)	
Are Vegetation Soil	or Hydrology	significantly di	sturbed?	Are "Normal Ci		nt? Yes X	No	
Are Vegetation , Coil							<u> </u>	
Are vegetation, Soil	, or Hydrology	naturally probl	iematic?	ir needed, exp	nain any answers in	Remarks.)		
SUMMARY OF FINDINGS - Attac	h site map showi	ng sampling point	locations, tr	ansects, impo	ortant features, etc			
Hydrophytic Vegetation Present?	Yes X	No		s the Sample	d Area			
Hydric Soil Present?	Yes X	No		within a Wetla	nd? Yes	X No		
Wetland Hydrology Present?	Yes X	No			····· · · · · · · · · · ·			
Pomarka								
Remarks:								
Wetland 2 DP								
HYDROLOGY								
Wetland Hydrology Indicators:					Secondary Ind	icators (minimum of	two required)	
Primary Indicators (minimum of one	is required; check	<u>all that apply)</u>			Surface S	ioil Cracks (B6)		
Surface Water (A1)		Aquatic Fauna (B	313)		Sparsely	Vegetated Concave	Surface (B8)	
High Water Table (A2)		_ Marl Deposits (B	15) (LRR U)		Drainage	Patterns (B10)		
Saturation (A3)		_ Hydrogen Sulfide	e Odor (C1)		Moss Trir	∩ Lines (B16)		
Water Marks (B1)		Oxidized Rhizosp	pheres along l	ng Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Presence of Red	uced Iron (C4)	Crayfish I	Burrows (C8)		
Drift Deposits (B3)		_ Recent Iron Redu	uction in Tilleo	l Soils (C6)	Saturation	n Visible on Aerial In	nagery (C9)	
Algal Mat or Crust (B4)		_ Thin Muck Surfac	ce (C7)		Geomorp	hic Position (D2)		
Iron Deposits (B5)		_ Other (Explain in	Remarks)		Shallow A	quitard (D3)		
Inundation Visible on Aerial I	magery (B7)				FAC-Neu	tral Test (D5)		
X Water-Stained Leaves (B9)					Sphagnui	n Moss (D8) (LRR 1	Г, U)	
Field Observations:								
Surface Water Present? Yes	<u> </u>	Depth (inches):		_				
Water Table Present? Yes	NoX	Depth (inches):			d the dealer we			
(includes capillary fringe) Yes	No X	Depth (inches):		Presen	ia Hydrology it? \	res X N	o	
Departing Reported Data (atracts	augo monitoria	wall parial shots -		otiona) if a	labla			
Describe Recorded Data (stream g	auge, monitoring	weii, aeriai photos, p	previous inspe	cuons), if avai	เสมเย.			
Remarks:								
Wetland 2 data point								

VEG	ETATION (Five Strata) - Use scientific names	of plants.			Sampling Point: 111
		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree	Stratum (Plot Size: 20-foot radius plot)	% Cover	Species?	Status	Dominance rest worksheet.
1.	Fagus grandifolia	15	Y	FACU	Number of Dominant Species That
2.	Acer rubrum	30	Y	FAC	Are OBL, FACW, or FAC: 5 (A)
3.	Quercus palustris	20	Y	FACW	
4.					Total Number of Dominant Species
5.					Across All Strata: 6 (B)
6.				<u> </u>	
		65	= Total Cover		Percent of Dominant Species That
	50% of total cover:	32.5	20% of total cover:	13	Are OBL, FACW, or FAC: 83 (A/B)
Sapli	ng Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.					Total % Cover of: Multiply by:
2.					OBL species x 1 =
3.			· ·		FACW species x 2 =
4.			· ·		FAC species x 3 =
5.	·		· ·	<u> </u>	FACU species x 4 =
6.			· ·		
0.			- Total Cover		
	50% of total covor				
					Provolence Index - P/A -
0					Prevalence index = B/A =
<u>Snru</u>	o Stratum (Plot Size: 20-foot radius plot)				The description of the state of
1.			· ·		Hydrophytic vegetation indicators:
2.			. <u> </u>		1 - Rapid Test for Hydrophytic Vegetation
3.				<u> </u>	X 2 - Dominance Test is >50%
4.					3 - Prevalence Index is ≤3.0 ¹
5.					Problematic Hydrophytic Vegetation ¹
6.					
			= Total Cover		(Evoluin)
	50% of total cover:		20% of total cover:		
					¹ Indicators of hydric soil and wetland hydrology must be
					present, unless disturbed or problematic.
Herb	Stratum (Plot Size: <u>10-foot radius plot)</u>				
					Definitions of Five Vegetation Strata:
	Cinna arundinacea	45	N/	EA 0) 4/	Tree - Woody plants, excluding woody vines
1.		15	Y	FACW	approximately 20 ft (6 m) or more in height and 3 in.
n		20	V		(7.6 cm) or larger in diameter at breast height (DBH).
2.		20	· · · · · · · · · · · · · · · · · · ·		Continer Massharlante evelusing weather inco
J.	l oxicodendron radicans	30	· ·	FAC	approximately 20 ft (6 m) or more in height and less
4.					than 3 in (7.6 cm) DBH.
5.				<u> </u>	
6.			· ·		Shrub – Woody plants, excluding woody vines,
7.				<u>.</u>	approximately 3 to 20 ft (1 to 6 ff) in height.
8.					Herb - All herbaceous (non-woody) plants, including
9.				<u> </u>	herbaceous vines, regardless of size, and woody
10.					plants, except woody vines, less than approximately
11.					3 h (1 m) in height.
		65	= Total Cover		Woody vine - All woody vines, regardless of height.
	50% of total cover:	32.5	20% of total cover:	13	
<u>Woo</u>	dy Vine Stratum (Plot Size: 20-foot radius plot)				
1.	· · · · · · · · · · · · · · · · · · ·				
2.			· ·	<u>.</u>	
 3			· ·		Remarks: (if observed. list morphological adaptations
0.			· <u> </u>		below.)
			Tatal Original		
	50% of total cover:		20% of total cover:		Vegetation
					Present?

Profile Desc	cription: (Descr	ibe to the	e depth need	ed to doc	ument the ir	ndicator or c	onfirm the ab	osence of indicators.)			
Matrix Redox			Features								
Depth	Color		Color								
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Textu	ure Remarks			
0-2	10YR 3/4	100					Sandy	loam			
3-11	10YR 3/2	75	10YR 5/6	25	С	М	Sandy I	loam			
	. <u> </u>			<u> </u>							
¹ Type: C=Co	oncentration, D=I	Depletion	, RM=Reduce	d Matrix,	MS=Masked	Sand Grains	. ² Location: P	L=Pore Lining, M=Matrix			
Hydric Soil	Indicators:							Indicators for Problematic Hydric Soils ³ :			
History	$\sim (\Lambda 1)$			Pohazo		rfaco (S8) (I		1 cm Muck (A0) (I PP O)			
Histost	Eninadan (A2)			- Thin D			(0, 0, 1, 0)				
Histic I				- Inin D		$(LKK 3, \dots)$	1, 0) 	2 cm Muck (AT0) (LRR 3)			
Black I	HISTIC (A3)			_ Loamy		rai (F1) (LRR		Reduced Venic (F18) (Outside MLRA 150A, E			
Hydrog	gen Sulfide (A4)			_ Loamy	Gleyed Matr	IX (F2)	-	Pleamont Floodplain Solis (F19) (LRR P, S, T)			
Stratified Layers (A5) X Deplete					ed Matrix (F3)	-	Anomalous Bright Loamy Soils (F20)			
Organic Bodies (A6) (LRR P, T, U)					Dark Surface	e (F6)		(MLRA 153B)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Deplete				ed Dark Surfa	ace (⊢7)	-	Ked Parent Material (1F2)				
Muck Presence (A8) (LRR U) Redox							Other (Furlein in Descriptio)				
1 cm M	1 cm Muck (A9) (LRR P, T) Marl (F			10) (LRR U)			Other (Explain in Remarks)				
Deplet	ed Below Dark S	Surface (A	.11)	Deplete	ed Ochric (F1	1) (MLRA 1	51)				
Thick [Dark Surface (A1	2)		Iron-Ma	anganese Ma	asses (F12) (LRR O, P, T)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless			
Coast	Prairie Redox (A	.16) (MLF	RA 150A)	Umbric	Surface (F1	3) (LRR P, T	, U)				
Sandy	Mucky Mineral (S1) (LRR	: O, S)	Delta C	Ochric (F17) (MLRA 151)		disturbed or problematic.			
Sandy	Gleyed Matrix (S	S4)		Reduce	ed Vertic (F18	B) (MLRA 15	0A, 150B)				
Sandy	Redox (S5)			Piedmo	ont Floodplair	ns Soils (F19	A)				
Strippe	ed Matrix (S6)			Anoma	alous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark S	Surface (S7) (LRI	R P, S, T,	U)								
Restrictive	Layer (if observ	/ed):									
	Туре:				Hyd	Iric Soil Pres	sent?	Yes X No			
Depth (inches):										
Remarks:											

Project/Site:	BEP Traffic	c Mitigation Site		City/Cou	unty:	Prince Ge	eorge's	Sampling Date:	04/15/21
Applicant/Owner:	BARC			State:	MD		Sampling Poin	t: <u>112</u>	
Investigator(s):	DRC/L	EJ		Section,	Township	o, Range:			
Landform (hillslope	e, terrace, e	etc.): Floodplain	Local re	lief (concave, o	convex, n	one):	Flat	Slope (%): 0-	1
Subregion (LRR or	MLRA):	LRR R	Lat:	39.033198		Long:	-76.902260	Datum:	NAD 83
Soil Map Unit Nam	ie: Chr	istiana and Downer					NW	I classification:	UPL
Are climatic/hydrolo	ogic condit	ions on the site typical f	or this time of y	rear?	Yes	Х	No	(If no, explain in R	emarks)
Are Vegetation	, Soil	, or Hydrology	significant	tly disturbed?	Are "N	ormal Circ	umstances" prese	nt? Yes X	No
Are Vegetation	, Soil	, or Hydrology	naturally p	problematic?	(If nee	ded, expla	ain any answers in	Remarks.)	

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	X No No No	X X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks:						
Off of Powdermill Road just before v	vetland begin	S				

HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) High Water Table (A2) Marl Deposits (B15) (LRR U) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum Moss (D8) (LRR T, U)

Field Observations:						
	Ma a	NI-				
Surface Water Present?	Yes		Depth (Inches):			
Water Table Present?	Yes	No	Depth (inches):			
Saturation Present?				Wetland Hydrolog	IV	
(includes capillary fringe)	Yes	No	Depth (inches):	Present?	Yes	No X
(
Describe Recorded Data (s	stream gau	ge, monitorin	ng well, aerial photos, previous	nspections), if available:		
Remarks:						
Wetland 1 UPL point						

VEGETATION (Five Strata) - Use scientific names	s of plants.			Sampling Point: 112
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. 2				Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
4 5				Total Number of Dominant Species Across All Strata: 5 (B)
50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC:60(A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1				<u>Total % Cover of:</u> <u>Multiply by:</u>
<u></u>				EACW species
). 				FAC species x 2 =
··				FACIL species x4 -
···				
··		= Total Cover		Column Totals: (A) (B)
50% of total cover:		20% of total cover:		
Shrub Stratum (Plot Size: 20-foot radius plot)				Prevalence Index = B/A =
Lindera benzoin	40	Y	FACW	Hydrophytic Vegetation Indicators:
2. Rosa multiflora	15	- <u> </u>	FACU	1 - Rapid Test for Hydrophytic Vegetation
).		- <u> </u>		2 - Dominance Test is >50%
1.				$3 - Prevalence Index is \leq 3.0^{1}$
				Problematic Hydrophytic Vegetation ¹
	55	= Total Cover		
50% of total cover:	22.5	20% of total cover:	11	(Explain)
		_		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot Size: 10-foot radius plot)				
Microstegium vimineum	40	Y	FAC	Definitions of Five Vegetation Strata:
Cinna arundinacea	40	Y	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
				Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH
				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
8 0 0		· ·		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
1				3 ft (1 m) in height.
	80	= Total Cover		Woody vine - All woody vines, recordloss of beight
50% of total cover:	40	20% of total cover:	16	woody vine - An woody vines, regardless of neight.
Voody Vine Stratum (Plot Size: 20-foot radius plot) Lonicera japonica	15	Y	FACU	
				Remarks: (if observed, list morphological adaptations below.)
	4 5	- Total Cover		
50% of total cover:	7.5	20% of total cover:	3	Hydrophytic Yes <u>X</u> No Vegetation
				Present?

Profile Desc	cription: (Descri	ibe to the	e depth neede	d to doc	ument the in	dicator or c	onfirm the abs	sence of ind	icators.)					
	Matrix	c		Redox	Features									
Depth	Color		Color											
(Inches)	(Moist)	%	(Moist)	%	Type ¹	Loc ²	Textur	re	Remarks					
0-3"	10 YR 3/2	100					Silt loa	im						
3-12"	10 YR 4/3	65	10YR 4/6	35	С	М	Sandy clay	/ loam						
			-					<u> </u>						
	. <u> </u>													
· · · · · · · · · · · · · · · · · · ·					·									
¹ Type: C=Co	oncentration, D=I	Depletion	, RM=Reduced	Matrix,	MS=Masked	Sand Grains	² Location: PL	=Pore Lining	, M=Matrix					
Hydric Soil	Indicators:							Indicate	ors for Problematic Hydrid	Soils ³ :				
								maioat						
Histoso	ol (A1)			Polyva	lue Below Su	face (S8) (L	RR S, T, U)	1 cm Mu	uck (A9) (LRR O)					
Histic E	Epipedon (A2)			Thin D	ark Surface (S	69) (LRR S, 1	T, U)	2 cm Mu	uck (A10) (LRR S)					
Black H	Histic (A3)			Loamy	Mucky Miner	al (F1) (LRR	0)	Reduce	d Vertic (F18) (Outside ML	RA 150A, B)				
Hydrog	en Sulfide (A4)			Loamy	Gleyed Matri	x (F2)	_	Piedmo	nt Floodplain Soils (F19) (Ll	RR P, S, T)				
Stratifie	ed Layers (A5)			Deplet	ed Matrix (F3)		—	Anomal	ous Bright Loamy Soils (F20))				
Organio	c Bodies (A6) (L	RR P, T,	U)	Redox	Dark Surface	(F6)	—	(MLR	(MLRA 153B)					
5 cm M	lucky Mineral (A	7) (LRR F	ν, Τ, U)	Deplet	ed Dark Surfa	ce (F7)		Red Parent Material (TF2)						
Muck F	Presence (A8) (L	RR U)	· · · · <u> </u>	Redox	Depressions (F8)				allow Dark Surface (TF12)					
1 cm M	luck (A9) (LRR I	P, T)		Marl (F	10) (LRR U)	. ,	—	Other (E	Explain in Remarks)					
Deplete	ed Below Dark S	Surface (A	.11)	Deplet	ed Ochric (F1	1) (MLRA 15	51) —		, ,					
Thick D	Dark Surface (A1	2)	,	Iron-M	anganese Ma	sses (F12) (I	, _RR O. P. T)	31						
Coast F	Prairie Redox (A	, 16) (MLR	A 150A)	Umbrid	Surface (F13) (LRR P. T.	U)	"Indica wotłan	wetland hydrology must be present, unless					
Sandy	Mucky Mineral (S1) (LRR	0. S)	Delta (Ochric (F17) (MLRA 151)	-,	ed or problematic.	it, uniess					
Sandy	Gleved Matrix (S	34)		Reduc	ed Vertic (F18	(MI RA 15	0A. 150B)	diotano						
Sandy	Redox (S5)	.,		Piedmo	ont Floodolair	s Soils (F19	(MI RA 149A)							
Strippe	d Matrix (S6)			Anoma	alous Bright I (amy Soils (F	(MI RA 14	9Δ 153C 14	53D)					
Dark S	urface (S7) (LRF	R P, S, T,	U)	7 (1011)				, 1000, N						
Restrictive I	Layer (if observ	ved):												
	Туре:				Hyd	ric Soil Pres	sent?	Yes	No	Х				
Depth (i	inches):													
Remarks:														

Project/Site:	BEP Traffic M	litigation		City/Cou	unty:	Prince Ge	orge's	Sampling Date:	04/15/2021
Applicant/Owner:	BARC			State:	MD		Sampling Poin	it: <u>113</u>	
Investigator(s):	DRC/LEJ			Section,	Township	, Range:			
Landform (hillslope	e, terrace, etc.): Floodplain	Local reli	ef (concave, o	convex, no	one): I	Flat	Slope (%): 0-	1%
Subregion (LRR or	r MLRA): L	RR R	Lat:3	9.032179		Long:	-76.901264	Datum:	NAD 83
Soil Map Unit Nam	ne: <u>Christia</u>	ana and Downer					NW	I classification:	PEM/PFO
Are climatic/hydrol	ogic condition	s on the site typical for	this time of ye	ear?	Yes	Х	No	(If no, explain in F	lemarks)
Are Vegetation	, Soil	, or Hydrology	significantly	y disturbed?	Are "No	ormal Circ	umstances" prese	nt? Yes X	No
Are Vegetation	, Soil	, or Hydrology	naturally p	roblematic?	(If need	ded, expla	in any answers in	Remarks.)	

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	Is the Sampled within a Wetla	d Area Ind?	Yes _	<u>x</u>	No
Remarks:								
Directly east of TS-1, right off of road	d. Clear a	are (artifici	ally) befo					

HYDROLOGY				
Wetland Hydrology Indicators:			Sec	ondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch	neck	all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)
Saturation (A3)		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)
Water Marks (B1)	Х	Oxidized Rhizospheres along Living Roots (C3)		Dry-Season Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (C4)		Crayfish Burrows (C8)
Drift Deposits (B3)		Recent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)				FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)			_	Sphagnum Moss (D8) (LRR T, U)

Field Observations.								
Surface Water Present?	Yes	N	o X	Depth (inches):				
Water Table Present?	Yes	N	0 X	Depth (inches):				
Saturation Present?	-			· · ·	Wetland Hydrology			
(includes capillary fringe)	Yes	X N	o 0-1"	Depth (inches):	Present?	Yes	Х	No
Remarks:								
Remarks: Standing water around poin								
Remarks: Standing water around poin Water in soil pit at 10"	nt							
Remarks: Standing water around poin Water in soil pit at 10" Wetland 1 wet point	nt							

Tree Stratum (Plot Size: 20-foot radius plot) Absolute Dominant Indicator 4 % Cover Species? Status	vorksheet:
1.	nt Species That r FAC: <u>2</u> (A)
4.	ominant Species (B)
= Total Cover Percent of Dominar 50% of total cover: 20% of total cover: Are OBL, FACW, or	nt Species That r FAC: (A/B)
Sapling Stratum (Plot Size: 20-foot radius plot) Prevalence Index	worksheet:
1. Total % Cover of:	Multiply by:
2. OBL species	x 1 =
3. FACW species	x 2 =
4. FAC species	x 3 =
5. FACU species	x 4 =
6 UPL species	x 5 =
= Total Cover Column Totals:	(A) (B)
50% of total cover: 20% of total cover:	
Prevalence Index =	: B/A =
Shrub Stratum (Plot Size: 20-foot radius plot) Hydrophytic Vege	tation Indicators:
2 1- Ranir	d Test for Hydrophytic Vegetation
2 1 rupi	inance Test is >50%
4 2 Donn	plance index is $\leq 3.0^{1}$
5	atic Hydrophytic Vegetation ¹
50% of total cover: 20% of total cover: (Explain)	
¹ Indicators of hydric -	soil and wetland hydrology must be urbed or problematic.
Herb Stratum (Plot Size: 10-foot radius plot)	
1. <u>Cinna arundinacea</u> 60 Y FACW Definitions of Five	e Vegetation Strata:
2. Cirsium arvense 10 N FACU approximately 20 ft	ts, excluding woody vines, (6 m) or more in height and 3 in. (7.6
3. Juncus effusus 5 N OBL cm) or larger in diar	meter at breast height (DBH).
4. Microstegium vimineum 40 Y FAC Sapling - Woody p	lants, excluding woody vines
5. <u>Symplocarpus foetidus</u> 15 N OBL approximately 20 ft	(6 m) or more in height and less than
6 3 in (7.6 cm) DBH.	
8. Shrub – Woody pla approximately 3 to	ants, excluding woody vines, 20 ft (1 to 6 m) in height.
9. Horb - All borbasso	aus (non woody) plants including
10 herbaceous vines.	regardless of size, and woody plants.
11. except woody vines	s, less than approximately 3 ft (1 m) in
130 = Total Cover height.	
50% of total cover: 65 20% of total cover: 26 Woody vine - All w	roody vines, regardless of height.
Woody Vine Stratum (Plot Size: 20-foot radius plot)	
1	
2.	
3 Remarks: (if observ below.)	ved, list morphological adaptations
Total Onice	
	Ves X No
	163 <u>A</u> NU
Present?	

SOIL

Profile Desc	cription: (Descr	ibe to the	depth needed	to doc	ument the ir	dicator or c	onfirm the abs	ence of in	dicators.)		
Danath	Matrix	<u> </u>	Calar	Redox	Features						
Depth	Color (Majot)	0/	(Majet)	0/	Turnel	1.0.02	Touture			Domorko	
(Inches)		<u>%</u>		<u>%</u>	Type.)		Remarks	
0-4	10YR 3/2	90	7.5 YR 4/6	10	<u> </u>		Silt loar	n			
4-12	10YR 4/2	70	7.5yr 4/6	30	<u> </u>	PI	Silt loar	n			
	. <u> </u>										
1							2				
Type: C=Cc	oncentration, D=I	Jepletion,	RM=Reduced I	Matrix, I	MS=Masked	Sand Grains	. ² Location: PL=	Pore Linir	ng, M=Matri	x	
Hydric Soil	Indicators:							Indica	ators for Pr	oblematic Hydric Soils ³ :	
Histoso	ol (A1)			Polyval	ue Below Su	rface (S8) (L	RR S, T, U)	1 cm N	/luck (A9) (I	_RR O)	
Histic E	Epipedon (A2)			Thin Da	ark Surface (59) (LRR S, '	T, U)	2 cm N	Auck (A10)	(LRR S)	
Black H	Histic (A3)			Loamy	Mucky Miner	al (F1) (LRR	0)	Reduc	ed Vertic (F	18) (Outside MLRA 150A, E	
Hydrog	gen Sulfide (A4)			Loamy	Gleyed Matri	x (F2)		Piedm	ont Floodpla	ain Soils (F19) (LRR P, S, T)	
Stratifie	ed Layers (A5)		X	Deplete	ed Matrix (F3)		Anoma	alous Bright	Loamy Soils (F20)	
Organi	c Bodies (A6) (L	.RR P, T, l	ן) 	Redox	Dark Surface	(F6)		(ML	RA 153B)		
5 cm N	lucky Mineral (A	7) (LRR P	, T, U)	Deplete	ed Dark Surfa	ice (F7)		Red P	arent Mater	ial (TF2)	
Muck F	Presence (A8) (L	.RR U)		Redox	Depressions	(F8)	Shallow Dark	k Surface (TF12)			
1 cm N	luck (A9) (LRR I	P, T)		Marl (F	10) (LRR U)		(Explain in I	Explain in Remarks)			
Deplete	ed Below Dark S	Surface (A1	1)	Deplete	ed Ochric (F1	1) (MLRA 1	51)				
Thick E	Dark Surface (A1	2)	·	Iron-Ma	anganese Ma	sses (F12) (LRR O, P, T)	³ Indic	sators of hy	drophytic vegetation and	
Coast	Prairie Redox (A	.16) (MLR/	<u>ــــــــــــــــــــــــــــــــــــ</u>	Umbric	Surface (F1	B) (LRR P, T	, U)	wetla	nd hydroloc	arophytic vegetation and	
Sandy	Mucky Mineral (S1) (LRR	O, S)	Delta C) Ochric (F17) (MLRA 151)		distu	rbed or prob	plematic.	
Sandy	Gleved Matrix (S	34)	· · <u> </u>	Reduce	ed Vertic (F18) (MLRA 15	0A, 150B)		•		
Sandy	Redox (S5)	,		Piedmc	ont Floodplair	ns Soils (F19) (MLRA 149A)				
Strippe	d Matrix (S6)			Anoma	lous Briaht L	oamv Soils (I	=20) (MLRA 149	A. 153C.	153D)		
Dark S	urface (S7) (LRI	R P, S, T, I	J)		3	,	-/ (,,	,		
Restrictive	Laver (if observ	/ed):									
	Tvpe:				Hvd	ric Soil Pres	sent?	(es	х	No	
Depth (i	inches):										
• •	,										
Remarks:											
10" down, s	tanding water										

Project/Site:	Bureau of	Engrav	ring and Printing	on BARC		City/Cou	unty: Greenbelt/P		lt/PG	Sampling E	Date:	4/3/20
Applicant/Owner:	Burea	u of Eng	graving and Prin	ting		State:	MD		Sampling Poi	nt: DP-8		
Investigator(s):	DRC/L	J/CO				Section,	Townsh	nip, Range:				
Landform (hillslop	oe, terrace,	etc.):	Flat pasture	Local	relief (c	oncave, o	convex,	none):	concave	Slope (%):	1-	3%
Subregion (LRR of	or MLRA):	MLR	A S/LRR 149A	Lat:	39° 01	l' 59.75"		Long:	76° 52' 54.17"	Da	atum:	NAD 83
Soil Map Unit Nar	me: <u>Ch</u>	ristiana	Downer Comple	ex, 5-10% slop	bes				NV	VI classificatio	n:	PEM
Are climatic/hydro	ologic cond	tions o	n the site typical	for this time o	f year?		Yes	з <u>Х</u>	No	(If no, expla	ain in R	emarks)
Are Vegetation	, Soi		, or Hydrology	significa	antly dist	turbed?	Are "	Normal Cir	cumstances" prese	ent? Yes	Х	No
Are Vegetation	, Soi		, or Hydrology	naturall	y proble	matic?	(If ne	eded, expl	ain any answers ir	n Remarks.)		

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	Is the Sampled Area within a Wetland?	Yes _	<u>x</u>	No
Remarks: Wetland 7 Data point. Wetland loca	ated on be	nch above	WUS-4.				

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; ch	neck all that apply)	Surface Soil Cracks (B6)				
X Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)				
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)				
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	X Saturation Visible on Aerial Imagery (C9)				
X Algal Mat or Crust (B4)	Thin Muck Surface (C7)	X Geomorphic Position (D2)				
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)				

Field Observations:												
Surface Water Present?	Yes	Х	No		Depth (inches):	2"						
Water Table Present?	Yes		No	Х	Depth (inches):							
Saturation Present?			-		-		Wetland Hydrology					
(includes capillary fringe)	Yes	Х	No		Depth (inches):	0"	Present?	Yes	Х	No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:												
Remarks:												
Toe of slope of open pastur	re, abov	ve inte	rmitter	nt strea	am channel (WUS-	4).						

VEGETATION (Five Strata) - Use scientific names	s of plants.			Sampling Point: DP-8
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. 2. 3.				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
4. 5. 6.		· ·		Total Number of Dominant Species Across All Strata: (B)
50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species x 1 =
3.		<u> </u>		FACW species x 2 =
4.		<u> </u>		FAC species x 3 =
5.		<u> </u>		FACU species x 4 =
6.		<u> </u>		UPL species x 5 =
		= Total Cover		Column Totals: (A) (B)
50% of total cover:		20% of total cover:		
				Prevalence Index = B/A =
Shrub Stratum (Plot Size: 20-foot radius plot)				Hydrophytic Vegetation Indicators:
2				1 - Ranid Test for Hydrophytic Vegetation
2.				2 - Dominance Test is >50%
3.				$\frac{2}{3} \operatorname{Provalance} \operatorname{Index} \operatorname{is} \leq 30^{1}$
4				$3 - Frevalence index is \leq 3.0$
5. 6		- <u> </u>		
0		- Total Cover		
50% of total cover		20% of total cover:		(Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot Size: <u>10-foot radius plot)</u>				Definitions of Five Verstation Strate
1. Agrostis stolonifera	80	Y	FACW	Demitions of Five vegetation Strata:
2. Phalaris arundinacea	20	<u> </u>	FACW	Tree - Woody plants, excluding woody vines,
 <u>Ranunculus repens</u> <u>-</u> 	10	<u> </u>	FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
5. 6. 7.		· ·		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.
8		· ·		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
10				Herb - All herbaceous (non-woody) plants, including
····	110	- Total Covor		herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
50% of total cover:	55	20% of total cover:	22	3 ft (1 m) in height.
Woody Vine Stratum (Plot Size: 20-foot radius plot)				Woody vine - All woody vines, regardless of height.
1. 2.				
3.				Remarks: (if observed, list morphological adaptations below.)
		= Total Cover		
50% of total cover:		20% of total cover:		Hydrophytic Yes X No Vegetation Present?

Sampling Point: DP-8

Profile Desc	ription: (Descri	be to the	depth neede	ed to doc	ument the in	dicator or o	confirm the ab	sence of in	dicators.)		
	Matrix			Redox	Features						
Depth (Inchos)	Color (Moist)	0/	Color (Moist)	0/		1.002	Toytu	Iro		Pomarka	
		80	7 5VR 1/6	20	C		Fine sand			Remarks	
9.12	10TR 4/2	70	10VP 5/4	20	<u> </u>	 	Fine sand				
0-12	1011(4/3	70	1011 3/4	- 30		111					
¹ Type: C=Cor	ncentration, D=I	Depletion,	RM=Reduce	d Matrix, I	MS=Masked	Sand Grains	s. ² Location: Pl	L=Pore Linir	ng, M=Matri	x	
Hydric Soil I	ndicators:							Indica	ators for Pr	oblematic Hydric Soils ³	•
Llistees	())			Dehavel				1 am 1	Aug. (AQ) (1		
HISTOSO	(A1)			- Polyval	ue Below Sul	nace (58) (L 20) /I PP S	.RR 5, 1, U)	1 cm M	/luck (A9) (L		
	pipedon (A2)				ark Surface (3 Musiku Minor	59) (LKK 3,	1, 0) 	Z CIII N	NUCK (ATU)	(LKK 3)	
	$\operatorname{Suc}(A3)$				Gloved Matri	ai (F i) (LKF v (E2)		Reduc	eu vertic (F	nin Soile (E10) (I PP P S	А, D) : Т)
Tryuruge Stratifia	d l avers (A5)		X	_ Loanny	d Matrix (F3)	x (r z)	-		oni Fiooupia	Loomy Soils (F19) (ERR F, S	, I)
Organic	Bodies (A6) (I	RRPT		_ Depiete	Dark Surface	(F6)	-	/MI	RA 153R)		
5 cm M	icky Mineral (A	7) (I RR F	с, ст. U)	 Deplete	Depleted Dark Surface (F7) Red Parent Material (TF2)						
Nuck P	resence (A8) (L	RR U)	, ., . , <u> </u>	_ Redox	ox Depressions (F8) Very Shallow Dark Surface					Surface (TF12)	
1 cm M	uck (A9) (LRR F	р. Т)		 Marl (F	10) (LRR U)	(Other (Explain in Remarks)			Remarks)	
Deplete	d Below Dark S	urface (A	11)	Deplete	ed Ochric (F1	1) (MLRA 1	51) -)	
Thick D	ark Surface (A1	2)	,	Iron-Ma	anganese Ma	sses (F12) (LRR O, P, T)	3 In die	otoro of hur	trankutia vagatatian and	
Coast P	rairie Redox (A	, 16) (MLR	A 150A)	_ Umbric	Surface (F13	3) (LRR P, T	, U)	vetla	nd hydrolog	arophytic vegetation and	s
Sandy M	/ucky Mineral (S1) (LRR	O, S)	_ Delta C) Chric (F17) (I	MLRA 151)		distu	rbed or prob	plematic.	0
Sandy (Gleyed Matrix (S	54)	· · ·	- Reduce	ed Vertic (F18) (MLRA 15	0A, 150B)		•		
Sandy F	Redox (S5)			- Piedmo	ont Floodplain	s Soils (F19) (MLRA 149A)			
Stripped	d Matrix (S6)			Anoma	lous Bright Lo	oamy Soils (F20) (MLRA 14	49A, 153C,	153D)		
Dark Su	rface (S7) (LRF	R P, S, T,	U)	-							
Restrictive L	ayer (if observ	ed):									
	Туре:				Hyd	ric Soil Pre	sent?	Yes	Х	No	
Depth (ir	nches):										
Remarks:											
Based on soil	profile, hydrolo	gy source	e appears to b	e surface	water.						

Project/Site:	Bureau o	f Engrav	ing and Printing o	on BARC	City/Co	unty:	Greenbel	t/PG	Sampling Date:	4/3/20
Applicant/Owner:	Burea	u of Eng	graving and Printi	ng	State:	MD		Sampling Point	: DP-9	
Investigator(s):	DRC/	LJ/CO			Section	, Townshi	p, Range:			
Landform (hillslop	e, terrace	etc.):	Road embankm	ent Local	relief (concave,	convex, n	one):	concave	Slope (%): 59	%
Subregion (LRR o	or MLRA):	MLR	A S/LRR149A	Lat:	39° 01' 59.28"		Long:	76° 52' 54.21"	Datum:	NAD 83
Soil Map Unit Nan	me: <u>Cł</u>	ristiana	Downer Complex	k, 5-10% slop	es			NWI	classification:	UPL
Are climatic/hydro	ologic cond	litions o	n the site typical f	or this time of	f year?	Yes	X	No	(If no, explain in R	emarks)
Are Vegetation	, So	il	, or Hydrology	significa	intly disturbed?	Are "N	ormal Circ	cumstances" presen	t? Yes X	No
Are Vegetation	, So	il	, or Hydrology	naturally	y problematic?	(If nee	eded, expla	ain any answers in F	Remarks.)	

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	X X X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks: Upland data point located between	Wetlands 7 and 8					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; che	Surface Soil Cracks (B6)			
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)		
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)		
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)		
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)		
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)		

Field Observations:								
Surface Water Present?	Yes	No	Х	Depth (inches):				
Water Table Present?	Yes	No	Х	Depth (inches):				
Saturation Present?						Wetland Hydrolo	ду	
(includes capillary fringe)	Yes	No	Х	Depth (inches):		Present?	Yes	No X
Describe Recorded Data (s	stream (gauge, monito	oring	well, aerial photos, p	previous inspect	ions), if available:		
Remarks:								
No signs of hydrology.								

VEGETATION (Five Strata) - Use scientific names	s of plants.			Sampling Point: DP-9	
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1				Number of Dominant Species That Are OBL, FACW, or FAC: 0	(A)
4 5				Total Number of Dominant Species Across All Strata:1	(B)
50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC: 0 ((A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:	
1				Total % Cover of: Multiply by:	
2.				OBL species x 1 =	
3.				FACW species x 2 =	
4.		<u> </u>		FAC species x 3 =	
5		<u> </u>		FACU species x 4 =	
6.		<u> </u>		UPL species x 5 =	
50% of total cover:		= Total Cover 20% of total cover:		Column Totals: (A)	(B)
Shrub Stratum (Plot Size: 20-foot radius plot)				Prevalence Index = B/A =	
1				Hydrophytic Vegetation Indicators:	
2		<u> </u>		1 - Rapid Test for Hydrophytic Vegetati	on
3.		<u> </u>		2 - Dominance Test is >50%	
4.		<u> </u>		3 - Prevalence Index is ≤3.0 ¹	
5				Problematic Hydrophytic Vegetation ¹	
···		= Total Cover		(Explain)	
50% of total cover:		20% of total cover:			
Herb Stratum (Plot Size: 10-foot radius plot)				present, unless disturbed or problematic.	i de
	70	V	FACU	Definitions of Five Vegetation Strata:	
2 Trifolium repens	10	- <u> </u>	FACU		
3. Plantago lanceolata	5		FACU	Tree - Woody plants, excluding woody vines,	in
4				(7.6 cm) or larger in diameter at breast height (DE	3H).
5. 6. 7.		· ·		Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and let than 3 in (7.6 cm) DBH.	SS
8				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
10 11		· ·		Herb - All herbaceous (non-woody) plants, includ herbaceous vines, regardless of size, and woody	ling
	85	= Total Cover		plants, except woody vines, less than approximat	ely
50% of total cover:	42.5	20% of total cover:	17	3 ft (1 m) in height.	
Woody Vine Stratum (Plot Size: 20-foot radius plot) 1.				Woody vine - All woody vines, regardless of heig	jht.
2.					
3.				Remarks: (if observed, list morphological adaptations below.)	
		= Total Cover			
50% of total cover:		20% of total cover:		Hydrophytic Yes X No Vegetation Present?	_

Sampling Point: DP-9

Depth (Inches)	Color (Moist)	%	Color (Moist)	%	Type ¹	Loc ²	Texture	<u> </u>	Rema	rks
0-12	10YR 3/4	60	5YR 4/6	20			Sandy loam Fill material			
		<u> </u>	10YR 7/2				Clay Fill material			
		<u> </u>								
		Doplation		d Motrix N	18-Maakad	Sand Crains	² Location: DL	-Doro Lining M	Motrix	
Type: C=Cor	icentration, D=	Depletion,	RIM=Reduce	d Matrix, N	/IS=Masked	Sand Grains	Location: PL:	=Pore Lining, M	=Matrix	
Hydric Soil Ir	ndicators:							Indicators	for Problematic H	ydric Soils ³ :
Histosol	(A1)			Polyvalı	ue Below Su	rface (S8) (L	RR S, T, U)	1 cm Muck	(A9) (LRR O)	
Histic E	pipedon (A2)			Thin Da	rk Surface (S9) (LRR S,	T, U)	2 cm Muck	(A10) (LRR S)	
Black H	istic (A3)			Loamy	Mucky Miner	al (F1) (LRR	0)	Reduced V	ertic (F18) (Outside	MLRA 150A, B
Hydroge	en Sulfide (A4)			Loamy	Gleyed Matri	ix (F2)		Piedmont F	loodplain Soils (F19	9) (LRR P, S, T)
Stratified	d Layers (A5)			_ Deplete	d Matrix (F3))		Anomalous	Bright Loamy Soils	(F20)
Organic	Bodies (A6) (L	.KK P, I, (U)	_ Redox I	Jark Surface	e (F6)		(MLRA 1	53B)	
5 cm IVIU	ucky Mineral (A		·, I, U)	_ Depiete	a Dark Surra		—	Red Parent	Material (TF2)	10)
		.кк U) в т\	. <u> </u>			(го)	<u> </u>	Very Shallo	ow Dark Surface (Tr	12)
T CHT IVIC	d Below Dark S	F, I) Surface (A)	11)		d Ochric (E1	1) (MI DA 16			an in Remarks)	
Depieter	ark Surface (A1	2)		_ Depiete	nganese Ma	I) (III EILA IS		0		
Coast P	rairie Redox (A	16) (MI R	A 150A)	Umbric	Surface (F1:	3) (I RR P. T.	U)	³ Indicators	s of hydrophytic veg	etation and
Sandy M	/uckv Mineral (S1) (LRR	0. S)	_ Delta O	chric (F17) (MLRA 151)	(0)	disturbed	or problematic.	esent, uniess
Sandy (Reved Matrix (54)		- Reduce	d Vertic (F18	B) (MLRA 15	0A, 150B)	alotarboa		
Sandy F	Redox (S5)	.,		– Piedmo	nt Floodplair	ns Soils (F19) (MLRA 149A)			
Stripped	d Matrix (S6)			Anomal	ous Bright Lo	oamy Soils (F	=20) (MLRA 14 9	9A, 153C, 153D))	
Dark Su	Irface (S7) (LR	R P, S, T,	U)	-	U	, (, x		,	
Restrictive L	aver (if observ	/ed):								
	Туре:	,			Hyd	Iric Soil Pres	sent?	Yes	No	Х
Depth (ir	nches):									
Remarks:										
Soil is compri	sed of mixed lo	am/clav w	vith gravel from	n road fill						
oon to compil		ani, olay n	and graver nor	in road init.						

Project/Site: Bureau of	Engraving and Pr	inting on BARC	City/Co	ounty: Greenbelt/PG			Sampling Date:	4/3/20	
Applicant/Owner: Bureau	u of Engraving and	d Printing	State:	MD		Sampling Point:	DP-10		
Investigator(s): DRC/L	J/CO		Section	, Township	, Range:				
Landform (hillslope, terrace,	etc.): Flat past	ure Loca	al relief (concave,	convex, no	one): <u>c</u>	oncave	Slope (%): 5-	8%	
Subregion (LRR or MLRA):	MLRA S/LRR 1	49A Lat:	39° 01' 58.37"		Long:	76° 52' 55.73"	Datum:	NAD 83	
Soil Map Unit Name: Chi	ristiana-Downer C	omplex, 5-10% slo	opes			NWI	classification:	PEM	
Are climatic/hydrologic condi	tions on the site ty	pical for this time	of year?	Yes	Х	No	(If no, explain in R	(emarks)	
Are Vegetation, Soil	, or Hydrol	ogy signifi	cantly disturbed?	Are "No	ormal Circu	umstances" present	? Yes <u>X</u>	No	
Are Vegetation, Soil	, or Hydrol	ogy natura	ally problematic?	(If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS -	Attach site map	showing samplir	ng point location	s, transect	ts, import	ant features, etc.			
Hydrophytic Vegetation Pres	ent? Yes	X No		Is the S	Sampled /	Area			
Hydric Soil Present?	Yes	X No		within	a Wetland	l? Yes	X No		
Wetland Hydrology Present?	Yes	X No							
Remarks:				1					

Wetland 8 Data point.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	X Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	X Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:										
Surface Water Present?	Yes		No	Х	Depth (inches):					
Water Table Present?	Yes		No	Х	Depth (inches):					
Saturation Present?					_		Wetland Hydrology			
(includes capillary fringe)	Yes	Х	No		Depth (inches):	0"	Present?	Yes	Х	No
Describe Recorded Data (s	stream g	gauge,	monite	oring	well, aerial photos,	previous ins	pections), if available:			
Remarks:										
Ground water flow in swale approximately 2' west of data point. Wetland 8 drains under Powder Mill road to WUS-4. Cypress knees present.										

VEGETATION (Five Strata) - Use scientific names	s of plants.			Sampling Point: DP-10
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Diospyros virginiana	5	Yes	FAC	Number of Dominant Species That
2. Taxodium distichum	8	Yes	OBL	Are OBL, FACW, or FAC: 2 (A)
3.		·		(1)
4				Total Number of Dominant Species
5		· <u> </u>		Across All Strata: 2 (P)
6		·		
0	13	- Total Cover		Descent of Descinent One size That
50% of total cover:	6.5	20% of total cover:	2.6	Are OBL, FACW, or FAC:(A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
<u></u>				Total % Cover of: Multiply by:
2		· <u> </u>		OBL species x 1 =
3		· <u> </u>		EACW species x 2 =
3		· <u> </u>		FAC species x 3 -
+		· <u> </u>		
5.		· <u> </u>		
6.				UPL species X 5 =
		= Iotal Cover		Column Totals: (A) (B)
50% of total cover:		20% of total cover:		
				Prevalence Index = B/A =
Shrub Stratum (Plot Size: 20-foot radius plot)				Hydrophytic Vegetation Indicators:
1		· <u> </u>		A Denid Test for Undershutic Verstation
2.		·		
3.		·		2 - Dominance Test is >50%
4.		. <u> </u>		3 - Prevalence Index is ≤3.0 ¹
5.				Problematic Hydrophytic Vegetation ¹
6.		. <u> </u>		
		= Total Cover		(Explain)
50% of total cover:		20% of total cover:		
				¹ Indicators of hydric soil and wetland hydrology must be
Harb Stratum (Plat Siza: 10 fact radius plat)				present, unless disturbed of problematic.
	00	V		Definitions of Five Vegetation Strata:
	00			Definitions of the Vegetation offata.
2. Juncus effuses	10	<u> </u>	OBL	Tree - Woody plants, excluding woody vines,
3. Lythrum salicaria	5	<u> </u>	OBL	approximately 20 ft (6 m) or more in height and 3 in.
4.				(7.0 Gill) of larger in diameter at breast height (DBH).
5		· <u> </u>		Sapling - Woody plants, excluding woody vines,
6.		. <u> </u>		approximately 20 ft (6 m) or more in height and less
7.		. <u> </u>		than 3 in (7.0 cm) DBH.
8.		<u>_</u>		Shrub – Woody plants, excluding woody vines,
9.		<u>_</u>		approximately 3 to 20 ft (1 to 6 m) in height.
10				Harb - All berbaceous (non-woody) plants including
11.				herbaceous vines, regardless of size, and woody
	95	= Total Cover	_	plants, except woody vines, less than approximately
50% of total cover:	47.5	20% of total cover:	19	3 ft (1 m) in height.
				Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size: 20-foot radius plot)				
1.				
2.				
3		·		Remarks: (if observed, list morphological
·		·		adaptations below.)
		- Total Cover		
EDD/ oftatal and				Hydrophytic Yee Y No
50% OF LOTAL COVEL:		20% OF LOCAL COVER:		Vegetation
				Present?

SOIL

Profile Desc	ription: (Descr	ibe to th	e depth ne	eded to do	ocument the in	dicator or o	confirm the ab	sence of i	indicators.)			
Matrix		0.1	Redox Features									
Depth (Inchos)	Depth Color Co		Colo (Moio	- +) 0/.	Type1	1.002	Taytura			Pomorko		
		70		l) 70						Remarks		
0-0	10 FR 4/2	70	10184	4/3 30		PL	Sandy loam					
¹ Type: C=Co	ncentration, D=	Depletio	n, RM=Redu	ced Matrix	k, MS=Masked	Sand Grains	. ² Location: P	L=Pore Lin	iing, M=Matri	x		
Hydric Soil	Indicators:							Indic	ators for Pr	oblematic Hydric Soils ³ :		
Histoso	ы (A1)			Polya	value Below Su	rface (S8) (I	RRSTII)	1 cm	Muck (A9) (I	RR ())		
Listis Eningdon (A2)					Dark Surface ($\frac{1}{2} = \frac{1}{2} = \frac{1}$			2 cm Muck (A10) (I PB S)			
Riscic Epipedoli (A2)					Mucky Miner	Muchy Minoral (E1) (LER 3, 1, 0)			2 cm where (A10) (LNK 3) Reduced Vertic (E18) (Outside MI DA 150A D)			
Ludrogon Sulfide (A4)					y Cloved Matri	Gleved Matrix (F2)			Piedmont Floodplain Soils (F10) (I DD D S T)			
Stratified Lawers (A5) Loality					tod Matrix (E2)	× (i ∠)	-	Anomalous Bright Loamy Soils (E20)				
) (E6)	-					
5 cm Mucky Mineral (A7) (LENC F, T, U)						(FO)		Red Parent Material (TE2)				
							-	Very Shallow Dark Surface (TE12)				
										Other (Explain in Remarka)		
T CITI MIUCK (A9) (LKK P, T) Maril (F Depleted Polew Dark Surface (A14)					(F10) (LRR 0)	Outer (Remarks)		
Thick Dark Surface (A12)												
I nick Dark Surrace (A12)					vianganese ivia				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless			
Coast Prairie Redox (A16) (MLRA 150A) Umbric					Cobrid (E17)	Surface (F13) (LRR P, 1, U)						
Sandy Viucky Winerar (ST) (LKK U, S) Delta U						Child (F17) (WILKA 151)				disturbed or problematic.		
Sandy Gieyed Matrix (S4) Reduce					ced Vertic (F18	a Vertic (F18) (MLRA 150A, 150B)						
Sandy Redox (55) Piedmo					nont Floodplair	nt Floodplains Soils (F19) (MLRA 149A)						
Stripped Matrix (S6) Anomal					nalous Bright Lo	ous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark S	urface (S7) (LRI	R P, S, 1	, U)									
Restrictive Layer (if observed):												
Туре:					Hydric Soil Present?			Yes	Х	No		
Depth (inches):								_				
Remarks:					•							
1												

APPENDIX C Photographs



Photo 1: Representative photo of Wetland 1 along Powder Mill Road



Photo 2: Representative photo of Wetland 1, southern portion of Edmonston Road



Photo 3: Representative photo of Wetland 2 along Powder Mill Road



Photo 4: Representative photo of Wetland 4 along Powder Mill Road



Photo 5: Representative photo of Wetland 6 facing Powder Mill Road



Photo 6: Waterlogged area in well access just north of Powder Mill Road

APPENDIX D Cowardin Classification Key
WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



System

P - Palustrine



MODIFIERS							
In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or							
special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.							
						301	
Nontidai	Saltwater I Idai	Freshwater i idai		Coastal Halinity	iniand Salinity	all Fresh Water	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a A cid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n M ineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 M ixo saline	i Alkaline	
E Seasonally Flooded/	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impo unded	4 Polyhaline	0 Fresh		
Saturated			r Artificial	5 M eso haline			
F Semipermanently Flooded			s Spoil	6 Oligo haline			
G Intermittently Exposed			x Excavated	0 Fresh			
H Permanently Flooded							
J Intermittently Flooded							
K Artificially Flooded							

FOREST STAND DELINEATION REPORT Bureau of Engraving and Printing Traffic Mitigation Beltsville Agricultural Research Center



December 2023

Prepared For:

Bureau of Engraving and Printing Washington, DC

Prepared By:

U.S. Army Corps of Engineers Baltimore District, Planning Division 2 Hopkins Plaza Baltimore, Maryland 21201

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Appendix A - Field Sampling Data Sheets

Appendix B – Figures

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Figure	BEP Traffic Mitigation Forest Stand Delineation 2023
Figure	BEP Traffic Mitigation Forest Stand Delineation 2023
Figure	BEP Traffic Mitigation Specimen Trees 2023
Figure	BEP Traffic Mitigation Specimen Trees 2023

Appendix \mathbf{C} – Specimen Tree List

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1. Introduction

The U.S. Army Corps of Engineers (USACE), Baltimore District, Planning Division prepared this report at the request of the United States Department of the Treasury, Bureau of Engraving and Printing (BEP), to identify and delineate forest stands and specimen trees found within the proposed site boundaries.

BEP proposes to construct and operate a new currency production facility (CPF) within the existing Beltsville Agricultural Center (BARC) in Prince George's County, Maryland. The new facility would replace BEP's current CPF located in Washington, D.C., with a more modern facility that meets production needs.

This report follows a 2019 forest stand delineation (FSD) conducted as part of the Environmental Impact Statement (EIS) for the Proposed Replacement CPF. To address traffic and utility measures identified since the EIS was completed, a supplemental Environmental Assessment (EA) is being prepared. The proposed action for this supplemental EA includes various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation to minimize delays and reduce queue lengths. It also includes utility infrastructure improvements required to accommodate the replacement CPF and additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS. (Figure 1). In addition, current access to two (2) wells located just east of Poultry Road would be blocked by the new CPF, so a road has been proposed to access these wells.

BARC is comprised of approximately 6,850 acres of land northeast of Washington, D.C. The new CPF would be an approximately 1 million square foot facility located on an approximately 104acre site in the Central Farm area of BARC, along Poultry Road. The areas for traffic mitigation and well access that were examined for this FSD total approximately 93 acres. Several of the forest stands expand outside of the bounds of the investigated area for this FSD. Any forest stand boundaries outside of the study areas are approximated for the purposes of mapping. The Edmonston Road project area and Odell Road (Sanitary Sewer Alternative One area) are the only parcels in which FSD plots were taken, as they are the only forested areas within the project areas described below. Specimen trees were marked whenever observed, on all project areas.

2. Site Description

The study area is approximately 93 acres located in Beltsville, Maryland. The areas described below were surveyed for the traffic mitigation action that proposes to improve the intersections as well as construct a well access road. The largest, forested portion of the project area includes Edmonston Road, beginning just north of Powder Mill Road and running south to Sunnyside Avenue, and encompasses the intersections of Edmonston Road and Powder Mill Road, Edmonston Road and Beaver Dam Road, and Edmonston Road and Sunnyside Avenue (Figure 5, Appendix B). A forested wetland system runs along the western edge of Edmonston Road, which drains to Indian Creek. BARC agricultural fields lie to the east of Edmonston Road, the Sanitary Sewer Alternative Two runs northeast through these fields, connecting to the laydown area.

Another portion of the project area includes 16 acres of land along Powder Mill Road expanding north, in the vicinity of Animal Husbandry Road (Figure 7, Appendix B). This area primarily consists of mowed and maintained lawn. The last two project areas are a 4-acre area around the intersections of Powder Mill Road and the Baltimore-Washington Parkway, and Powder Mill Road and Springfield Road (Figure 8, Appendix B); and a 1.8-acre Sanitary Sewer Alternative One area north of Odell Road and northeast of Poultry Road (Figure 6, Appendix B). Eighteen (18) specimen trees were identified within traffic mitigation areas and can be seen in Figures 5 and 7 in Appendix B. All other specimen trees were documented outside of traffic mitigation areas.

The geology at BARC consists of Lower Cretaceous sediments of the Potomac Group, which consists of the Patuxent, the Arundel, and the Patapsco Formations, respectively decreasing in age. The Patuxent and Patapsco Formations are composed primarily of sand and gravel and comprise the most prevalent water bearing aquifers in Prince George's County. The Arundel is mostly clay and creates artesian conditions in the underlying Patuxent Formation in some locations.

3. Methodology

Prior to field investigations, topographic maps, county soil surveys, and Maryland Department of Natural Resources digital aerial orthophotographs were reviewed to identify probable forest stand boundaries. The project area was surveyed between 15 April and 15 May 2021, with additional surveys in August and September 2023, to identify, delineate, and characterize forest stands. Forest stands were distinguished primarily by differences in species composition and successional stage.

A 1/10-acre fixed plot sampling technique was used to assess forest stand conditions and forest structure. Sampling plots were chosen to be evenly distributed throughout the stands. A stick flag was placed in the center of each plot and along the perimeter of the circular plot in each of the four cardinal directions. The plot center was marked in the field with pink tape flagging and the stand and plot number labeled with a black marker. All additional forest stand and forest structure procedures for data collection follow guidelines of the State Forest Conservation Technical Manual (Third edition, 1997). The priorities of the stands are given according to the guidelines in the Technical Manual. Priority 1 stands have wetlands, specimen trees, streams, steep slopes, and/or other sensitive areas. In some cases, a stand can have a sensitive area within its boundaries but be a low-quality stand based upon quality of vegetation, presence of invasive species, or other values. These are noted in the stand descriptions.

4. Results

Six forest stands, of two cover types, were identified within the study area. The cover types were red maple sweetgum and (*Acer rubrum/Liquidambar styraciflua*) oak/hickory with differing species of oak and hickory being the co-dominant species. Stand variations result from changes in topographic position, degree of slope, and amount and type of historical human disturbance. Forest stands were identified in two areas, the Edmonston Road area and the Odell Road/Sanitary Sewer Alternative 1 area (Figures 5 and 6, Appendix B). Specimen trees were only identified in the Edmonston Road area and the Powder Mill Road/Animal Husbandry Vicinity (Figures 5 and 7,

Appendix B).

Forest stand conditions and forest structure were assessed at sample plots within each stand as detailed in the following stand descriptions (see also Appendix A). A summary of forest conditions within the stands are also included in Appendix A. Figures 5 and 6 in Appendix B depict the approximate location of the boundary of forest cover type within the study area. A brief description of the forest stands are as follows:

<u>Stand 1</u>

Sample Plots:	2
Successional Stage:	Mature
Priority:	1
Cover Type:	Red Maple/Sweetgum

Stand 1 is co-dominated by red maple and sweet gum of size class 6" to 11.9" diameter at breast height (dbh), with approximately 70% canopy closure. Other trees in the canopy included ironwood *(Carpinus caroliniana)*, pin oak *(Quercus palustris)*, beech *(Fagus grandifolia)*, Tulip poplar *(Liriodendron tulipifera)*, red elm *(Ulmus rubra)*, boxelder *(Acer negundo)*, and red mulberry *(Morus rubra)*.

The understory from 3' to 20' tall averages 100% coverage, and includes, southern arrowwood (*Viburnum dentatum*), northern spicebush (*Lindera benzoin*), green ash (*Fraxinus pennsylvanica*), winterberry holly (*Ilex verticillata*), Tatarian honeysuckle (*Lonicera tatarica*), and red elm.

Common herbaceous and woody species 0' to 3' tall consist of eastern poison ivy (*Toxicodendron radicans*), Solomon's seal (*Polygonatum* sp), common jewelweed (*Impatiens capensis*), common greenbrier (*Smilax rotundifolia*), pin oak, Virginia creeper (*Parthenocissus quinquefolia*), skunk cabbage (*Symplocarpus foetidus*), grape vine (*Vitis riparia*), strawberry bush (*Euonymus americanus*), stout woodreed (*Cinna arundinacea*), sedge species (*Carex* sp.), and blackberry (*Rubus allegheniensis*), with approximately 100% coverage.

Invasive species included Chinese privet (*Ligustrum sinense*), Japanese stiltgrass (*Microstegium vimineum*), garlic mustard (*Alliaria petiolata*), Japanese barberry (*Berberis thunbergii*), cleavers (*Galium aparine*), Tatarian honeysuckle, common mugwort (*Artemisia vulgaris*), and multiflora rose (*Rosa multiflora*), with approximately 25% coverage.

The wildlife value of the stand is moderate due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 1 for retention because of its mature successional stage and wetlands.

Environmental Features

Stand 1 contains a wetland, with a dense and healthy understory housing minimal invasive species. However, it does not contain specimen trees and has been impacted by the roadway.

<u>Stand 2</u>

Sample Plots:	1
Successional Stage:	Mature
Priority:	1
Cover Type:	Red Maple/Sweetgum

Stand 2 is co-dominated by red maple and sweetgum, of size class 2" to 5.9" dbh, with approximately 80% canopy closure. Other trees in the canopy include blackgum (*Nyssa sylvatica*), willow oak (*Quercus phellos*), beech and green ash.

The understory from 3' to 20' tall averages 80% coverage, and includes southern arrowwood, red maple, and northern spicebush.

Common herbaceous and woody species 0' to 3' tall consist of common greenbrier, Virginia creeper, and mayapple (*Podophyllum peltatum*), with approximately 80% cover.

Invasive species observed in sample plots were periwinkle (*Catharanthus roseus*), English ivy (*Hedera helix*), multiflora rose, and Japanese honeysuckle (*Lonicera japonica*), with a low coverage of 10%. The wildlife value of the stand is medium due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 1 for retention because of its mature successional stage, wetland presence, specimen trees, and lack of invasive species.

Environmental Features

Stand 2 contains one specimen tree within and one outside of the plot, two wetlands, a stream, and has a very low occurrence of invasive species. In addition, the stand is very small and impacted by adjacent roadway.

<u>Stand 3</u>

Sample Plots:	4
Successional Stage:	Mature
Priority:	1
Cover Type:	Red Maple/Sweetgum

Stand 3 is dominated by red maple and sweetgum, of size class 6" to 11.9" dbh, with approximately 70% canopy closure. Other trees in the canopy include tulip poplar, blackgum, pin oak, ironwood, beech, willow oak, American holly (*Ilex opaca*), and sweetbay magnolia (*Magnolia virginiana*).

The understory from 3' to 20' tall includes northern spicebush, pin oak, Tatarian honeysuckle, beech, American holly, red maple, white fringe tree (*Chionanthus virginicus*), highbush blueberry (*Vaccinium corymbosum*), and sweet pepperbush (*Clethra alnifolia*), with an average coverage of 55%.

Common herbaceous and woody species ()' to 3'	tall consist of Virginia creeper, eastern poison ivy,
Bureau of Engraving and Printing		U.S. Army Corps of Engineers, Baltimore District
Forest Stand Delineation Report	4	December 2023

sensitive fern (*Onoclea sensibilis*), common greenbrier, sweetgum, common jewelweed, greater bladder sedge (*Carex intumescens*), blackberry, southern arrowwood, bristly dewberry (*Rubus hispidus*), strawberry bush, mayapple, skunk cabbage, Jack-in-the-pulpit (*Arisaema triphyllum*), netted chain fern (*Woodwardia areolata*), Canada mayflower (*Maianthemum canadense*), and white oak (*Quercus alba*), with an average 90% coverage.

Invasive species observed in sample plots were Tatarian honeysuckle, hog peanut (*Amphicarpaea bracteata*), Asiatic bittersweet (*Celastrus orbiculatus*), multiflora rose, garlic mustard, Japanese stilt grass, cleavers, and Japanese honeysuckle, with approximately 21% cover. The wildlife value of the stand is high due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 1 for retention because of its mature successional stage and wetlands.

Environmental Features

Stand 3 contains one specimen tree and has a moderate occurrence of invasive species. The stand houses parts of a large wetland system and contains 19 specimen trees outside of the plot radius. The stand has a low to moderate quantity of invasive species.

<u>Stand 4</u>

Sample Plots:	2
Successional Stage:	Mature
Priority:	1
Cover Type:	Oak/hickory

Stand 4 is co-dominated by southern red oak (*Quercus falcata*), northern red oak (*Quercus rubra*), and bitternut hickory of size class 6" to 11.9" dbh, with approximately 60% canopy closure. Other trees in the canopy include red maple, beech, white oak, sweetgum, and blackgum.

The understory from 3' to 20' tall includes northern spicebush, flowering dogwood (*Cornus florida*), ironwood, crabapple (*Malus* sp.), and winterberry holly, with and average coverage of 50%.

Common herbaceous and woody species 0' to 3' tall consist of white oak, beech, Virginia creeper, blackberry, northern spicebush, sensitive fern, mayapple, common greenbrier, Jack-in-the-pulpit, sedge, winterberry holly, ironwood, and sessile bellwort (*Uvularia sessilifolia*), with an average coverage of 90%.

Invasive species observed in sample plots were Japanese honeysuckle, garlic mustard, and hog peanut, with an approximate 10% coverage. The wildlife value of the stand is moderate due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 2 for retention because of its mature successional stage, lack of specimen trees, and wetland.

Environmental Features

Stand 4 contains a wetland, but no specimen trees. It has a very small percentage of invasive species cover.

<u>Stand 5</u>

Sample Plots:	1
Successional Stage:	Mature
Priority:	3
Cover Type:	Oak/hickory

Stand 5 is dominated by willow oak of size class 12" to 19.9" dbh, with approximately 80% canopy closure. Other trees in the canopy include red maple, beech, and sweetgum.

The understory from 3' to 20' tall includes tulip poplar, poison ivy, ironwood, persimmon (*Diospyros virginiana*), green ash, staghorn sumac (*Rhus typhinus*), Asiatic bittersweet, and porcelain-berry (*Ampelopsis brevipedunculata*) with 100% coverage.

Common herbaceous and woody species 0' to 3' tall consist of blackberry, black raspberry, Japanese barberry, Christmas fern (*Polystichum acrostichoides*), Virginia jumpseed (*Persicaria virginiana*), shallow sedge (*Carex lurida*), false nettle (*Boehmeria cylindrica*), strawberry bush, partridge-berry (*Mitchella repens*), and common greenbrier with 100% coverage.

Invasive species observed in sample plots were Asiatic bittersweet, multiflora rose, Tartarian honeysuckle, Japanese honeysuckle, Japanese barberry, English ivy, and Japanese stiltgrass with approximately 40% coverage. The wildlife value of the stand is moderate due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 3 for retention because of its lack of sensitive features such as wetlands, streams, steep slopes, etc. The stand also exhibits relatively high coverage by invasive species.

Environmental Features

Stand 5 contains no sensitive environmental features and a higher percentage of invasive species cover than the other stands.

<u>Stand 6</u>

Sample Plots:	1
Successional Stage:	Mature
Priority:	1
Cover Type:	Red maple/sweetgum

Stand 6 is dominated by red maple of size class 12" to 19.9" dbh, with 100% canopy closure. Other trees in the canopy include sweetgum.

The understory from 3' to 20' tall includes black cherry (*Prunus serotina*), poison ivy, southern arrowwood, and green ash with 100% coverage.

Common herbaceous and woody species 0' to 3' tall consist of common greenbrier with 100% coverage.

Invasive species observed in sample plots were Asiatic bittersweet, Chinese privet, Tartarian honeysuckle, Japanese honeysuckle, and English ivy with approximately 35% coverage. The wildlife value of the stand is moderate to high due to the presence of cover, forage and water, and its connection to a larger forested corridor to the north with a stream. The stand rates a Priority 1 for retention because of its stream and wildlife value. The stand does, however, exhibit relatively high coverage by invasive species.

Environmental Features

Stand 6 contains a stream and a higher percentage of invasive species cover than the other stands.

5. Conclusions

Six forest stands were delineated and assessed on the site, comprised of two cover types – red maple/sweetgum and oak/hickory. There are 20 specimen trees documented within forest stands along Edmonston Road; only one of these is located within the project limit of disturbance. Seventeen (17) other specimen trees were documented within the limit of disturbance in the Powder Mill/Animal Husbandry area (Figure 7, Appendix B), but are not located within a forest stand. Invasive species coverage is low to moderate in all stands. Stands 1 and 3 have specimen trees and Stands 1, 2, 3, 4 and 6 have wetlands and/or a stream. Stands 1, 2, 3, 4 and 6 rank as Priority 1 retention stands due to the presence of sensitive areas (wetlands and streams), specimen trees, and their mature successional stage. Stand 5 is ranked as Priority 3 due to the lack of sensitive features and high occurrence of non-native invasive species.

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6. References

Eyre, F.H. 1980. <u>Forest Cover Types of the United States and Canada</u>. Society of American Foresters, Washington, D.C. 148 pp.

- Maryland Dept. of Natural Resources, 3rd ed., 1997. <u>State Forest Conservation Technical Manual</u>. Dept. of Natural Resources, Annapolis, Maryland.
- Maryland Dept. of Natural Resources, Maryland Natural Heritage Program. 2016. <u>Rare, Threatened</u> <u>and Endangered Plants of Maryland.</u> Dept. of Natural Resources, Annapolis, Maryland. 24pp.

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7. Acronyms and Abbreviations

Beltsville Agricultural Research Center
Bureau of Engraving and Printing
Currency Production Facility
diameter at breast height
Environmental Impact Statement
Forest Stand Delineation
U.S. Army Corps of Engineers

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APPENDIX A

Field Sampling Data Sheets

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Property: BEP Traffic Mitigation	Prepared By: :LEJ/DRC		
Owner: BARC	Stand #:1	Plot #: 1	
Forest Cover Type: Red Maple/Sweetgum	Date:05/11/21		
Plot Size 1/10 Acre (37 5' radius):			

FIOLO	12e 1/10 Acre (37.5 1	aulus).															
	Basal Area in Square Feet per Acre: 100					SIZ		SS O	F TRE	EES >2	0' HE	IGHT	with	IN SA	MPLE	E PLO	т	
		Νι	Impe	r of	Nu	Imbe	r of	N	umbe	r of	Nu	imbei	r of			-	Average	
		Tre	es 2-	5.9"	Tree	es 6-1	1.9"	Tree	es 12∙	-19.9"	Tree	s 20-2	29.9"	Νι	Imbe	r of	Tree Height	
-	TREE SPECIES		dbh			dbh			dbh			dbh		Tree	s >30	" dbh	(ft)	
	Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
1	Ironwood						1											1
2	Pin Oak						2			1			1					4
3	Sweetgum					3			2									5
4	Red Maple		2			2			2									6
5	Tulip Poplar			1														1
													0					
7																		0
8																		0
9																		0
	lotal Number of Trees																	
	per Size Class		3			8			5			1			0			17
	Number & Size of Standing Dead Trees								1									1
List o	f Woody Plant Specie	es 3'-2	20'.					Ca	nonv		re:		Perce	nt of Inv	vasive	Cover	Plot Succession	al Stage:
Southe	rn arrow-wood. Northern	spiceb	oush. h	nazelnu	ıt. aree	n ash	С	N	E E	S	W	%	per Pl	ot (all la	ayers):			
	,	1	,		, 0		Y	Y	N	N	Y	60	1	20	0/		Matu	re
Listo	f Understery Species	0' 2'						Indor	story	Cover	2' 20		List	ા of Mai	j%	vacivo	Spacias	
	ivy Solomon's seal jewe	su-s.	comr	non ar	oonbrid	r nin		N			3-20	. 0/		Di iviaj Diat (A		vasive	species	
oak, Vi	rginia creeper, skunk cat	bage,	strawb	perry b	ush	л, рш		N		3	V	70	Chine	se prive	et, Japa	nese stil	ltgrass, garlic musta	ard, Japanese
							Y	Ŷ	Ŷ	Ŷ	Ŷ	100				barberi	ry, cleavers	-
Rare,	etc. Species?	NO					Herba	aceou	IS & V	voody	Cove	r 0 -3 :	HABIT	AT: W	hat spe	ecies pr	resent?	
Specimen Trees? No								N	E	5	VV	%	deer					
HISTORIC SITES / NO							Y	Y	Y	Y	Y	100	Habita	it size,	locatio	n, conf	iguration:	
Disea	se : to/Infoototion?			Down		oody F)obrio											
Exotic	S/IIIIeStation?	No					C					•	\A/:Lall:4					
Leaf	itter?	mode	erate							3	~~	%		e cove	/1000/	water?		
Downed	d woodv debris:	mode	erate				N	Y	N	N	Y	40	Stand	corrido	or/patc	h?	patch	
FUNCT	ON: Where is stand in rela	ation to	sensit	ive are	as on s	ite? W	est of st	tream									1	
Comn	nents:																	

Comments:

over 100% absolute cover Northern spicebush understory and southern arrow-wood

Dry when surveyed East of Powdermill Rd. just off road (DP 105) picture facing Powder mill road , plot center

Property: BEP Traffic I	Mitigation	Prepared By: :LE	J/DRC		
Owner: BARC		Stand #:	1	Plot #:	2
Forest Cover Type:	Red Maple/Sweetgum	Date: 5/11/2021			
Plot Size 1/10 Acre (37)	.5' radius):				

	Basal Area in Square Feet per Acre: 80				SIZE CLASS OF TREES >20' HEIGHT WITHIN SAMPLE PLOT													
,		Nu Tre	. <mark></mark>	r of -5.9"	Nu Tre	imber es 6-1 dbh	r of 11.9"	Num 12	ber of	f Trees ' dbh	Number of 29.9	f Tree " dbh	s 20-	Nı Tree	umber	r of " dbh	Average Tree Height	
<u> </u>	Crown Position	Dom	CoD	Other	r Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
1	Red elm			1						<u> </u>								1
2	Boxelder			1			1			<u> </u>								2
3	Red mulberry			1														1
4	Sweetgum		1			1			2			1						5
5	Beech			1						<u> </u>								1
6	Tulip poplar									1			2					3
7	Red Maple					3			2									5
8	,			1			, <u> </u>					\mathbf{T}	, <u> </u>					0
9	· · · · · · · · · · · · · · · · · · ·														0			
	Total Number of Trees	5	.		5	<u> </u>		3	·;		0			18				
l	Number & Size of		;										l – I					
l ist of	Standing Dead Trees	<u></u>	<u>,</u>	'	L		'		Can	ony Cl			Derce	ent of In	vacivo	Cover	Plot Succession	U · enet2 le
Winter	erry. Northern spicebus!	h. Tart	arian h	oneys	uckle		+ c	N	E	I S	W	%	per Pl	lot (all I	ayers):	0000	Pior Succession	al Stage.
	, ,	.,		- ,			Y	Y	Y	Y	N	80	1	2(ი%		Matu	re
List of	Understory Species	:'0'-3'					\vdash	Ur	nderst	tory Cc	ver 3'-20':		List	of Mai	ior Inv	/asive	Species	
poison i	vy, Virginia creeper, stor	ut woor	d reed	, Sedg	e speci	ies,	С	N	E	S	W	%	per F	Plot (A	All Lay	/ers):	-	
blackbe	rry, Solomon's seal						Y	Y	Y	Y	Y	100	Japane	ese hone Tartarian	ysuckle, honeysi	cleavers uckle, co	s, Japanese stiltgrass, mmon mugwort, multi [,]	, garlic mustard, flora rose
Rare, (etc. Species?	No					+	lerbac	eous	& Woc	dv Cover 0'	-3':	HABIT	TAT: W	hat spe	cies pr	resent?	
Specir	nen Trees?	No					С	N	E	S	W	%	1	<i>7</i>	1	•••••		
Histori	ic Sites?	No									V	100	Habita	at size,	locatio	n, conf	figuration:	
Diseas	ie?	No					<u>'</u>	<u>''</u> '	<u> </u>	<u> </u>		100						
Insect	s/Infestation?		\square	Do	owner	J Wood	ly Debris:		\perp									
Exotic Plants? No							С	<u>N</u>	<u> E '</u>	S	W	%	Wildlif	ie cove	r/food/v	water?		
Leat in	ter?	light					N	Y	Ν	Ν	Y	40	Y/Y/Y	rid	-laate		-11 motoh	
Downeu	WOODY DEDTIS:	- eensi	Hive are		-ita?	<u> </u>	ى			<u> </u>		Stanu	COLLING	or/pater	h'?	small paten		
Comm	JN: WHEre is stand in role	Alon to	Sellan	live are	asona	liter												
Northe	rn spicebush understo woods, futher into wc	ory, he oods tl	∍althy han pl	lot 1														

extends to site LOD flat area, no wetlands

Prope	rty: BEP Traffic Mitic	ation								Prepa	red By: :L	EJ/DR	C					
Owner	r: BARC									Stand	#:	2					Plot #:	1
Forest	Cover Type:	Red	Maple	/Swee	taum					Date:	5/11/2021							
Plot Si	ize 1/10 Acre (37.5' ra	adius)	: '		5													
	Basal Area in Square	ľ í																
	Feet per Acre: 110					S	SIZE C	LASS	6 OF T	REES	>20' HEIG	ht Wi	THIN	SAMP	LE PI	LOT		
		Νι	umbe	r of	Nu	Imper	r of									-	Average	
		Tre	es 2-	5.9"	Tre	es 6-1	1.9"	Num	ber of	Trees	Number of	of Tree	es 20-	Nu	Imper	' of	Tree Height	
Т	REE SPECIES		dbh			dbh		12-	·19.9"	dbh	29.9	" dbh		Tree	s >30'	" dbh	(ft)	
	Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
1	Sweetgum					2			1									3
2	Red Maple		7			2			1									10
3	Blackgum			2			1											3
4	Willow oak						1											1
5	Beech													1				
6	Green ash													1				
7														0				
8																		0
9																		0
	Total Number of Trees																	
	per Size Class		11			6			2			0			1			
	Number & Size of																	0
List of	Standing Dead Trees	2 2 2	<u>.</u>				1		Cana				Damaa	at of las		C	Diet Cuessesier	U
LISt UI	woody Flain Specie	- Nor	born a	nicohu	lah		<u> </u>	N				0/	ner Pl	nt (all l	vasive	Cover	FIOL SUCCESSION	ai Stage.
Souther	in allow-wood, led mapi	e, Non	linem s	spiceou	ISTI		U.	IN	E	3	VV	%	perri	or (all h	uyers).			
							Y	Y	Y	N	Y	80		10	1%		Matur	re
l ist of	Understory Species	0'-3'						llno	doreta	Nry Cov	/or 3'_20''		l ist (of Mai	or Inv	vasivo	Snecies	
Commo	n greenbrier. Virginia cr	eener	Mava	nnle n	nison i	WV	C	N	F	s	w	9/.	nor F	Plot (A	lllav	acre).	opeoleo	
Solomo	in's seal	oopor,	maya	ppio, p	0100111	• ,				Ŭ		70	P0	101 (7	in Eug	010).		
							N	Y	Y	Y	Y	80	Engli	sh ivy, p	eriwinkle	e, multif	lora rose, Japanese	honeysuckle
Rare, e	etc. Species?	No					He	erbace	eous &	& Wood	dy Cover 0	'-3':	HABIT	AT: WI	nat spe	cies pr	resent?	
Specimen Trees? Yes								Ν	E	S	W	%						
Historic Sites? No							v	v	v	V	v	100	Habita	it size,	locatio	n, conf	figuration:	
Diseas	se?	No					1	1	1		I	100						
Insect	s/Infestation?	No						Do	wned	Wood	y Debris:							
Exotic	Plants?	No					С	Ν	Ε	S	W	%	Wildlif	e cove	r/food/	water?		
Leaf lit	tter?	mode	erate				V	N	V	N	N	40	Y/Y/Y					
Downed	woody debris:	mode	erate					IN				+0	Stand	corrido	or/patcl	h?	patch	
FUNCTI	ON: Where is stand in rel	ation to	o sensi	tive are	as on s	site?	adjac	ent to	wetla	nd 4								
Comm	ients:																	
Wotlan	nd 4 adjacent																	T.

Wetland 4 adjacent shaded, thick greenbrier presence, most of understory

Pr <u>ope</u>	perty: BEP Traffic Mitigation Prepared By: :LEJ/DRC																	
Owne	r: BARC									Stand	#:	3					Plot #:	1
Fores	t Cover Type:									Date:	5/11/2021							
Plot S	ize 1/10 Acre (37.5' r	adius)):															
	Basal Area in Square							1 400				· T \A/I	T UINI	ME		ОТ		
	Feet per Acre: 190		mbo	r of	Ni	C mho		LASS		REES	>20" HEIGH		HIN	SAIVIP	LE PI	-01	Average	
		Tre		5 O''	Tro		101 I 44 Q!!	Num	har of	· T-000	Number	4 Tro/	- 20	N.		~*	Average	
l ,		IIe	;es ∠-:	5.9	lie	35 0-1	11.9	NUIII	Der OI	Trees	Number of	f free "	3 5 ∠u-				Tree Height	
	TREE SPECIES	- Dom	dbh	- <u>Other</u>		dbh	Other	12	-19.9	dbh	29.9	dbn	Other	Tree	s >30	' dbn	(ft)	Total
1		Dom	COD	Other	Dom	COD	Other	Dom	COD	Other	Dom	COD	Other	Dom	COD	Other		l Otai
- -	Sweetgum	 '	┣—	'	 '	Ļ	 '	┨───	5	 		2						7
2	Red maple	 '		<u> </u>	 '	1	 '	_	5									6
3	Tulip poplar	 '	<u> </u>	 '	 '	\square	 '	L		1								1
4	Blackgum	_ '		1	<u> </u> '													1
5	Pin oak			<u> </u>									1					1
6	Ironwood	<u> </u>		1							[]							1
7	T	<u> </u>										[0
8		<u> </u>		\square						\square						0		
9		 													0			
1	Total Number of Trees	1				<u> </u>			· · ·	<u> </u>								
 	per Size Class	'	┣──	1			11		L	3			0					
	Standing Dead Trees		1	I			I		2									3
List o'	f Woody Plant Specie	es 3'-2	20':		4				Cano	ol <mark>o ya</mark> a	sure:		Percei	nt of In	vasive	Cover	Plot Successiona	al Stage:
Northe	rn spicebush, pin oak, T	artariar	n hone	vsuckl	e		c	N	E	ĹS	W	%	per Pl	ot (all la	ayers):			
	1			,			Y	Y	N	Y	N	60		25	5%		Matur	е
List o	f Understory Species	s 0'-3':					┼──	Une	dersto	Dry Cov	/er 3'-20':	L	List	of Mai	or Inv	asive	Species	
Virginia	creeper sensitive fern	comm	on are	enbrie	r swee	-taum.	+ c		E	l s	w	%	ner P	Plot (A	II I av	ers):	Openice	
jewelw	ed, greater bladder sed	lge, bla	ickberr	y, sout	thern a	rrow-	v				v	10	Japar	nese hor	neysuck	le, hog p	peanut, multiflora ros	e, Tartaruan
wood	oto Encoine?	No					<u>⊢'</u> ,					40 21.		honeys	uckle, g	arlic mu	ustard, Japanese stil	tgrass
Raie,	etc. Species :							I Dace				-3: 	HADII	AI: WI	hat spe	cies pr	esent r	
Speci								IN .		5	VV	70			41 -			
Histor Disea	IC SITES? se?	No					Y	Y	Y	Y	Y	100	Habita	t size,	locatio	n, cont	iguration:	
Insect	s/Infestation?	No					1	Do	wned	Wood	v Debris:							
Exotic	Plants?	No					C	N	E	S	w	%	Wildlif	e cove	r/food/\	water?		
Leaf li	itter?	light					\mathbf{T}						Y/Y/Y	• • •				
Downe	wned woody debris: light						·N	Y	N	N	N	20	Stand	corrido	or/patcl	1?	patch	
FUNCT	NCTION: Where is stand in relation to sensitive areas on site						4	<u> </u>	<u> </u>		<u> </u>			•		••	P*	
• = •																		
																		ľ
																		ľ
l																		
ł																		
l l																		

Property: BEP Traffic Mitigation	Prepared By: :LEJ/DRC		
Owner: BARC	Stand #: 3	Plot #:	2
Forest Cover Type: Red Maple/Sweetgum	Date: 5/11/2021		
Plot Size 1/10 Acre (37.5' radius):			

	Basal Area in Square	T T	<u> </u>															
	Feet per Acre: 210				- N.	S	IZE C	LASS	OF T	REES	>20' HEIG	HT WI	THIN	SAMP	PLE P	LOT		
	ļ			r ot	NU	Imper	1 OT		h a n aí		Number			NI.		4	Average	
		Ire	;es ∠-	5.9	Iree	35 0-i	1.9	Num		l i rees		OT I LEE	95 ZU-	NU Troo		'01 "dbb	Tree Height	
	TREE SPECIES	Dom		Othou	Dom		Othor	12- Dom	19.9	dbn	29.3		Othor	Irees	S >30	" Obn	(ft)	Total
1		Dom		Uller	Dom		Utilei	Dom		Other	Dom	000	Other	Dom	COD	Other		
<u> </u>	Red maple			'	<u> </u>	5			1									6
2	Sweetgum					12			9									21
3	Beech			2			2											4
4	tulip poplar						2					1						2
5	Willow oak												1					1
6	Ironwood																	0
7	1																	0
8	1																	0
9	-		<u> </u>	+														0
	Total Number of Trees	'							<u> </u>			1						
	per Size Class		2 21						10			1						
	Number & Size of		1						1									2
listo	Standing Dead Trees	08 3'-0	۱ ۲۰۰۰		L				Cano	ny Clo	euro:		Porco	at of In	vacivo	Cover	Plot Succession	∠ al Stage:
Northe		35 0 -2	.0.				C	N			W	0/	per Pl	ot (all la	avers):	Cover	FIOL SUCCESSION	al Slaye.
Northo							<u> </u>					/0			.,			
							Y	Ν	Y	Ν	Y	80		30	%		Matu	re
List o	f Understory Species	s 0'-3':	:					Und	dersto	ory Cov	/er 3'-20':		List o	of Maj	or Inv	asive	Species	
Virginia	a creeper, common gree	nbrier,	bristly	dewbe	erry, Ja	ck-in-	С	Ν	Е	Ś	W	%	per F	lot (Å	ll Lay	ers):	•	
the-pul	pit, mayapple, poison ivy	∕, jewel	weed				Ν	Y	Y	Y	Y	80	Japane	ese hone	eysuckle	e, multifl cle	ora rose, Japanese eavers	stiltgrass, and
Rare.	etc. Species?	No					He	rbace	eous &	& Wood	dv Cover 0)'-3':	HABIT	AT: W	nat spe	cies pr	esent?	-
Speci	men Trees?	No					C	N	E	S	W W	%	deer.re	ed-wina	ed blac	kbird		
Histor	Historic Sites? No								V	- -		100	Habita	t size,	locatio	n. conf	iouration:	
Disea	se?	No					Ŷ	Y	Ŷ	Y	Y	100				, -	3	
Insect	ts/Infestation?	No						Do	wned	Wood	y Debris:		1					
Exotic	Exotic Plants? No						С	Ν	Е	S	W	%	Wildlif	e cove	r/food/	water?		
Leaf li	_eaf litter? moderate								v	V	v	00	Y/Y/Y					
Downee	wned woody debris: moderate						IN	T	T	T	T	00	Stand	corrido	or/patcl	h?	patch	
FUNCT	ION: Where is stand in rel	ation to	o sensi	itive are	eas on s	site?												

Comments:

not many saplings, lots of deer

Property: BEP Traffic N	litigation	Prepared By: :LEJ/DRC		
Owner: BARC		Stand #: 3	Plot #:	2
Forest Cover Type:	Red Maple/Sweetgum	Date: 05.11.21		
Plot Size 1/10 Acre (37.	5' radius):			

<u> </u>	Basal Area in Square	Γ ⁱ	<u></u>															
 	Feet per Acre: 120		mbo	- ^ F	• Nr	SIZ	ECLA		FIRE	ES >2		GHI	WITH	IN SA	MPL	E PLO	T	
l	ŗ			1'01 I 5 0"			1'01 44 0"			10 0"			' 01 20.0"		ho		Average	
		116	-∠-85 	5.9	1164	-15 0-1 -156	11.9	1166	-۲۱`S{ ططات	.19.9	1166	5 20-4	29.9			" 01 " J66	Tree Height	
 '	TREE SPECIES	Dom		Other	Dom		Other	Dom		Other	Dom		Other	I ree:	5 > JU	" QDII	(ft)	Total
1		Dom	005	Uller	Dom	605	Outer	Dom	005	Uner	Dom	000	Uner	Dom	005	Utiter	l – I	10(a)
Ĺ	Beech	 '	╞	11	L	╞	3	Ļ									ll	14
2	Red Maple	 ′					!											0
3	Sweetgum		2			6			4									12
4	Amercian holly						1		2									3
5	Willow oak	!														1		1
6		 '																0
7																		0
8		['																0
9												\square			\square			0
	lotal Number of Trees per Size Class 13								6			0			1			30
l	Number & Size of	<u> </u>			1				-			-					l – j	
	Standing Dead Trees				<u> </u>		 '			21- 21			<u> </u>					0
List o	f Woody Plant Specie	es 3 -2	20:				Ļ		inopy	Closu	re:		Percer	nt of Inv	vasive	Cover	Plot Successiona	al Stage:
beecn,	Northern spicebush, Am	erican	holly				C	N	E	S	VV	%	реги	Ji (an n	ayers).			
							Y	Ν	Y	Y	Ν	60		15	5%		Matu	re
List o	f Understory Species	s 0'-3':	<u> </u>					Under	story	Cover	3'-20'	<u>':</u>	List	of Maj	jor Inv	vasive	Species	
skunk /	cabbage, jewelweed, cor	nmon ç	greenb	orier, Ja	ack-in-t	he-	С	Ν	Е	S	W	%	per P	lot (A	dl Lay	yers):		
pulpit, ł	blackberry, mayapple, Vir	rginia c [,]	reepe	r, straw	vberry I	bush	Ν	Y	Y	Y	Y	80	Ja	apanese	e stiltgra	ass, Japa	anese honeysuckle,	, cleavers
Rare,	etc. Species?	No					Herb	aceou	is & V	Voody	Cover	r 0'-3':	HABIT	AT: WI	hat spe	ecies pr	resent?	
Speci	imen Trees?	Yes					C	N	E	S	W	- %						
Histo	ric Sites?	No								v		100	Habita	t size, l	locatio	n, conf	iquration:	
Disea	ise?		Ť	T	Y	Ϋ́	Ŷ	100		-			5					
Insec'	Insects/Infestation? No							Down	ed W	oody D	ebris	:	1					
Exoti	c Plants?	No					С	N	E_	S	W	%	Wildlif	e cove	r/food/	water?		
Leaf I	litter?	heav	у				N	N	N	v	м	20	Y/Y/Y					
Downe	d woody debris:	mode	erate				IN	IN	IN	I	IN	20	Stand	corrido	or/patc	h?	patch	
FUNCT	ION: Where is stand in rel	ation to	sensi	tive are	as on s	ite?	encro	bache	s wetla	and 1							·	
Comr	nents:																	
near v	wetland off of Edmonst	ion																

very little understory or invasives Lots of specimen trees in area

Property: BEP Traffic N	litigation	Prepared By: :LEJ/DRC		
Owner: BARC		Stand #: 3	Plot #:	4
Forest Cover Type:	Red maple/ sweetgum	Date: 05.11.21		
Plot Size 1/10 Acre (37.	5' radius):			

`																		
Basal Area in So	Juare	1				SIZ						IGHT	WITH				<u></u>)Т	
reel per Acre. o	<u></u>	Nu	imbe	r of	N	umbe	rof		umbe	rof	N	imbe	r of		<u>1411</u>		Average	
	1	Tre	es 2-	-5.9"	Tre	es 6-1	11.9"	Tre	es 12	-19.9"	Tree	s 20-	29.9"	Νι	imbe	r of	Tree Height	
TRFE SPECIES	s	1	dbh			dbh			dbh	1		dbh		Tree	< >30	" dbh	/ff)	
Crown Posi	ition	Dom	CoD	Other	Dom	T CoD	Other	Dom	I CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
¹ Red maple			2			4						<u> </u>						6
² Sweetgum						2			2		<u> </u>							4
³ Beech																		0
⁴ White oak										1			1					2
⁵ Blackgum				1			3											4
⁶ Sweetbay ma	ignolia			1														1
7 American holl	ly			1							<u> </u>							1
8				<u> </u>						<u> </u>	<u> </u>							0
9											[_'							0
I otal Number of	Trees		5						3			1					ſ /	19
Number & Size (ot	<u> </u>	┣──	9		┢──	<u> </u>	'	┢	<u> </u>		──	0		ł/	10		
Standing Dead T	Frees	1	1	'			!		1	'			!			!	1	2
List of Woody Plant	Specie	.s 3'-2	20':					Ca	anopy	/ Closu	ire:		Percer	nt of In	vasive	Cover	Plot Succession	al Stage:
beech, red maple, white	fringetre	e, Am	ericar	ı holly,	highbu	Jsh	С	N	E	S	W	%	per Pl	ot (all la	ayers):		1	
blueberry, sweet pepper	bush, wh	ite frin	ngetree	е			Y	Ν	Y	Y	Y	80		15	5%		Matu	ire
List of Understory S	pecies	0'-3':	:				, T	Under	rstory	Cover	3'-20	/ :	List	of Mai	ior In	vasive	- Species	
common greenbrier, bristly	dewberry,	, beech	n, red m	naple, A	America	n holly,	С	N	E	S	W	%	per F	lot (A	All Lay	vers):		
highbush blueberry, poison mayapple, Jack-in-the-pulp	ivy, white	oak, C chainfe	Canada ∋rn	mayflo	wer,		Ν	Y	N	N	Ν	20	Ji	apanese	e honey	suckle,	cleavers, Japanese	stiltgrass
Rare, etc. Species?							Herb	aceou	us & V	Noody	Cove	r 0'-3'	HABIT	TAT: W	hat spe	ecies pr	resent?	
Specimen Trees?		No					С	Ν	E	S	W	%	1		-			
Historic Sites?	!	No										100	Habita	at size, '	locatio	n, conf	iguration:	
Disease?				ľ	<u> </u>	<u> </u>	100					-						
Insects/Infestation?	· <u> </u>	No						Down	ied W	oody Γ	Jebris							
Exotic Plants?	xotic Plants? No						С	N	E	S	W	%	Wildlif	ie cove	r/food/	water?		
Leaf litter?	af litter? heavy						$\Box_{\mathbf{v}}$		Γγ		[v]	80	Y/Y/Y					
Downed woody debris:	I	light									<u> </u>	00	Stand	corrido	or/patc	h?	patch	
FUNCTION: Where is star	nd in relat	tion to	sensit	tive are	as on s	site?												

Comments:

Southern portion of edmonstn near houses littel understory growth, mostly greenbrier

Property: BEP Traffic Mitigation	Prepared By: :LEJ/DRC
Owner: BARC	Stand #: 4 Plot #: 1
Forest Cover Type: Oak/Hickory	Date: 05.12.21
Plot Size 1/10 Acre (37.5' radius):	

			<u> </u>												_			
Basal Area in Square Feet per Acre: 100						SIZ		0 224		=== >2	אי HF	IGHT	WITH				 \T	
Feet per Acre: 100 SIZ					imbe	rof		umbe	r of		imbe	rof						
1	,	Tre	es 2	-5.9"	Tre	es 6-'	11.9"	Tre	es 12	-19.9"	Tree	•s 20-	29.9"	N	umbe	r of	Tree Height	
- 1	TRFF SPECIES		dbh	, 0.		dbh			dbh			dbh		Tree	s >30	" dbh	/ft)	
I	Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
1	Red maple			1			1			[]						1		2
2	Beech			1			2			1			1					5
3	White oak					1			4	<u> </u>								5
4	Bitternut hickory					2			1	<u> </u>			\Box'					3
5	Southern red			<u> </u>						<u>['</u>		1	<u> </u>					1
6	Sweetgum			1			5			2			4					12
7	<u> </u>									['								0
8	Τ'									['			['					0
9				ſ'						<u>[</u> '			['					0
	Total Number of Trees		2	·,		44	,		0	·,		6	·,		0		[]	
└ ──	per Size Class	┣—	3	'	┞──	<u> </u>		┨───	<u>8</u>	'	_	6	'	┣──	0		I	28
1	Standing Dead Trees		_	'		1			_	'		_	'		_		I	1
List of	f Woody Plant Specie	es 3'-7	20':					Ca	anopy	/ Closu	ire:		Percer	nt of In	vasive	Cover	Plot Succession:	al Stage:
Norther	n spicebush, flowering d	logwoo	d, win ^r	terberr	y holly,	,	С	C N E S W % per Plot (all layers):										
ironwoo	od, crabapple						Y	Ν	Ν	Y	Y	60		15% Mature				re
List o'	f Understory Species	s 0'-3'	:					Under	rstory	Cover	3'-20	/:	List of Major Invasive Species					
white o	ak, beech, common gree	enbrier	, Vrigir	ia cree	eper,		С	Ν	E	S	W	%	per F	۲) Iot (All La	yers):	-	
blackbe	erry, Japanese honeysuc	kle, Nc	orthern	ı spiceł	osuh, S	3edge	N	Y	Y	N	Y	40	1	lananer	se honr	vsuckle	e garlic mustard, hor	a peanut
species	s, hog peanut, sensitive re	ern, ma	ayappı	.e					Ľ		<u> </u>			Jupan -		youo,	, gamo maca, · · · ·) pouries
Rare,	etc. Species?	No					Herb	aceou	<u>is & V</u>	Voody	Cover	<u>r 0'-3'</u>	HABIT	AT: W	nat spe	ecies pr	resent?	
Speci	men Trees?	No					С	N	E	S	W	%	<u> </u>					
Histor	ic Sites?	No					N	Y	Y	Y	Y	80	Habita	ut size, l	locatio	n, conf	iguration:	
Disease ? No							╂───	Powr	W hor	/oody [Johris	<u> </u>	-					
Fxotic	· Plants?	No							E		W	. %	Wildli	fe cove	r/food	/water?	,	
Leaf litter? moderate						<u>+</u> —	+	+	ات	+	~~~	Y/Y/Y	6 0010	1/1004.	water .			
Downer	d woody debris:	mode	erate				N	Y	Ν	Y	Y	60	Stand	corride	or/patc	:h?	patch	
FUNCT!	ION: Where is stand in rel	ation to	sensi	tive are	as on s	site?			<u> </u>	·	·	<u> </u>				<u> </u>	<u> </u>	
Comr	nonte:																	

omments:

Semi-open canopy near wetland 4

Property: BEP Traffic M	itigation	Prepared By:	:LEJ/DRC		
Owner: BARC		Stand #:	4	Plot #:	2
Forest Cover Type:	Oak/Hickory	Date: 05.12.2	21		
Plot Size 1/10 Acre (37.5	5' radius):				

Basal Area in Square Feet per Acre: 140 SIZE CLASS OF TREES >20' HEIGHT WITHIN SAMPLE PLOT																		
Number of Nu					Imber	rof		umbe	r of	Nu	imbei	r of	1			Average		
		Tre	Trees 2-5.9"			es 6-1	1.9"	Tree	s 12-	19.9"	Tree	s 20-	29.9"	Nu	mber	r of	Tree Height	
ר	REF SPECIES		dbh	•	••••	dbh			dbh			dbh	••••	Trees >30" dbr			(ft)	
-	Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	(11)	Total
1	Beech			2			8	_			_							10
2	Red maple			2			2											4
3	Sweetgum			1			4						5					10
4	Northern red oak					1												1
5	Blackgum			2														2
6																		0
7																		0
8																		0
9																		0
	Total Number of Trees																	
per Size Class Number & Size of																		
	Standing Dead Trees																	0
List of	Woody Plant Specie	es 3'-2	20':					Ca	nopy	Closu	re:		Percer	nt of Inv	vasive	Cover	Plot Successiona	al Stage:
Winterb	erry holly						С	Ν	Ε	S	W	%	per Plot (all layers):					
							Y	Y	Ν	Y	Ν	60		10% Mature				re
List of	Understory Species	0'-3' :					L I	Jnder	story	Cover	3'-20'	:	List	of Maj	or Inv	vasive	Species	
commo	n greenbrier, sensitive fe	ern, Jac	k-in-th	ne-pulp	it, Virg	inia	С	Ν	E	S	W	%	per P	lot (A	II Lay	/ers):	- 1	
creeper bellwor	[•] , winterberry holly, ironw t	ood, se	edge s	pecies	, sessi	le	N	Ν	Y	Y	Y	60	1	·	Ja	apanese	honeysuckle	
Rare,	etc. Species?	No					Herba	aceou	s & V	Voody	Cover	' 0'-3'	HABIT	AT: W	nat spe	cies pr	esent?	
Specir	men Trees?	No					С	Ν	Е	S	W	%						
Histor	ic Sites?	No					v	V	v	v	V	100	Habita	t size, I	locatio	n, conf	iguration:	
Disease? No											1	100						
Insects/Infestation? No								Down	ed W	oody C	ebris	:						
Exotic Plants? Oak/Hickory							С	Ν	E	S	W	%	Wildlif	e cove	r/food/	water?		
Leaf li	tter?	mode	rate				Y	N	Y	Ŷ	N	60	Y/Y/Y					
Downed	woody debris:	mode	rate				•		•	•		00	Stand	corrido	or/patcl	h?	patch	
FUNCTI	ON: Where is stand in rela	ation to	sensit	ive are	as on s	ite?												

Comments:

open area, outskirts dense greenbrier

Property: BEP Traffic Mitigation	Prepared By: :JH/DRC	
Owner: BARC	Stand #: 5 Plot #:	1
Forest Cover Type: Oak/Hickory	Date: 08.02.2023	
Plot Size 1/10 Acre (37.5' radius):		

Basal Area in Square Feet per Acre: 110 SIZI								SS O	F TRI	ES >2	0' HE	IGHT	WITH	IN SA	MPLE	E PLO	т	
	Number of Numb					Imber	rof	N	umbe	er of	Nu	imbei	r of				Average	
Trees			es 2-	es 2-5.9" Tree		es 6-11.9"		Trees 12-19.9"		Trees 20-29.9"		29.9"	" Number of		r of	Tree Height		
-	TREE SPECIES	_	dbh			dbh	-		dbh		dhh			Trees >30" dbf			/ft)	
	Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	(11)	Total
1	Beech						1										80	1
2	Red maple			1						2							80	3
3	Sweetgum						3			2							80	5
4	Willow oak							1			1						80	2
5																		0
6																		0
7																		0
8																		0
9																		0
Total Number of Trees																		
	per Size Class		1			4			5			1						11
	Standing Dead Trees																	0
List of	f Woody Plant Specie	es 3'-2	20':					Ca	nopy	Closu	ire:		Percent of Invasive Cover				Plot Succession	al Stage:
stagho	n sumac, ironwood, gree	en ash,	porce	lain be	rry,		C N E S				W	%	per Plot (all layers):			•		
Americ	an holly, tulip poplar, pois	son ivy	, Asiat	ic bitte	rsweet	,	V	v	v	V	N	00	Matura					
persim	mon						Y Y Y Y N 80 40%					Matu	re					
List of	f Understory Species	s 0'-3':					l	Under	story	Cover	3'-20	':	List	of Maj	or Inv	vasive	Species	
commo	on greenbrier, common b	lackbei	rry, bla	ick ras	pberry,		С	Ν	E	S	W	%	per F	Plot (Å	ll Lay	/ers):		
Christm	nas fern, partridge berry,	strawb	erry b	ush, fa	lse net	tle,	v	v	v	V	v	100	Japa	anese h anese h	oneysu	ckle, As English	latic bittersweet, mu	litifiora rose,
lurid se	dge, Japanese barberry,	Virgini	ia jum	oseed			I	I	I	I	I	100	Japa	anese b	aibeiry,	hone	evsuckle	grass, busir
Rare,	etc. Species?	No					Herba	aceou	ıs & V	Voody	Cove	r 0'-3':	HABIT	AT: WI	nat spe	cies pr	esent?	
Specimen Trees? No							С	Ν	Ε	S	W	%	White-	tailed d	eer, gre	ey squir	rel	
Historic Sites? No							Y	Y	Y	Y	Y	100	Habita	t size,	locatio	n, conf	iguration:	
Disease? No							'		'			100						
Insect	Insects/Infestation? No							Down	ed W	oody E)ebris	:						
Exotic	Plants?	Yes					С	Ν	E	S	W	%	Wildlif	e cove	r/food/	water?		
Leaf litter? thin						Y	N	N	Y	N	40	cover a	and har	d mast,	water o	on west side of Edr	nonston	
Downed	l woody debris:	light								· ·			Stand	corrido	or/patc	h?	patch	
FUNCT	ON Where is stand in rela	ation to	sonsit	ivo aro	ae on e	ito?												

Comments:

stand located on east side of Edmonston Road. Clearing for the road has increased light penetration, therefore increasing invasive coverage along the edge of the stand.

Property: BEP Traffic	Aitigation	Prepared By: :JH/LEJ		
Owner: BARC		Stand #: 6	Plot #:	1
Forest Cover Type:	Red maple/Sweetgum	Date: 09.28.2023		
Plot Size 1/10 Acre (37	5' radius):			

	<u> </u>															
Basal Area in Square Feet per Acre: 110 SIZ							F TRE	ES >2	0' HE	GHT	with	IN SA	MPLE		т	
Νι	umbe	r of	Νι	umber	rof	N	umbe	r of	Nu	imber	r of				Average	
Tre	Trees 2-5.9"			es 6-1	1.9" Trees 12-19.9"			Trees 20-29.9"			.9" Number of			Tree Height		
_	dbh			dbh			dbh			dhh		Trees >30" dbł		" dbh	/ft)	
Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	(11)	Total
	1						2			3					80	6
				1			2								80	3
															80	0
															80	0
																0
																0
																0
																0
																0
\$	L	4			L											
	1			1			4			3	b				9	
	1													1		
	י ז <u>רי</u>				<u>_</u>	Ca	nonv	Closu	ro:		Porco	at of Inv	/2eivo	Cover	Plot Succession	l al Stano:
	<u>10</u> .	d aree	n ash							0/	per Plot (all layers):			di Staye.		
icin ano	****0000	i, greei	1 4311		<u> </u>	IN		3	**	70						
					Y	Y	Y	Y	Y	100		35% Mature				re
<u>es 0'-3':</u>	:				l	Jnder	story	Cover	3'-20'		List o	of Maj	or Inv	vasive	e Species	
					С	Ν	Ε	S	W	%	per P	Plot (A	ll Lay	/ers):		
					Y	Υ	Y	Ν	Y	80	Japar	nese ho	neysucl hone	kle, Asia eysuckle	atic bittersweet, Eng e, Chinese privet	lish ivy, bush
No					Herba	aceou	s & V	Voody	Cover	r 0'-3':	HABIT	AT: W	nat spe	cies pr	esent?	
No			,		С	Ν	Ε	S	W	%	White-	tailed d	eer, gre	ey squir	rel	
No			,			v	v	V	v	400	Habita	t size, l	ocatio	n, conf	iguration:	
Disease? No						Y	Ŷ	Ŷ	Ŷ	100				, , ,,		
Insects/Infestation? No						Down	ed W	oody D	ebris	:		p	atch of	torest b	between townnome	es
Exotic Plants? Yes						Ν	Е	Ś	W	%	Wildlif	Wildlife cover/food/water?				
Leaf litter? thin							NI	V	NI	~~	cover,	food an	d wate	r		
Downed woody debris: moderate						IN	IN	Ŷ	IN	20	Stand	corrido	or/patcl	h?	patch	
FUNCTION: Where is stand in relation to sensitive areas on site?																
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Comments:

relatively high invasive coverage, very thick understory, stream located within stand north of plot, plot on the edge of the woods

FOREST STAND DELINEATION - FOREST STAND SUMMARY SHEET

Project Name: BEP Traffic Mitigation

Prepared By: LEJ/DRC

Owner: BARC						
Location: BARC			Date: 05/11-05/12/2	1		
Stand Variable	Stand # 1	Stand #2	Stand # 3	Stand #4		
1. Dominant species/ Codominant	Red Maple,/	Red Maple,/	Red			
species	Sweetgum	Sweetgum	Maple/Sweetgum	Oak/Hickory		
2. Successional stage	Mature	Mature	Mature	Mature		
3. Basal area in s.f. per acre	90	110	130	120		
4. Size class of dominant species	6-11.9"	2-5.9'	6-11.9"	6-11.9"		
5. Percent of canopy closure	70%	80%	70%	60%		
6. Average number of tree species per plot	6	6	6	6		
7. Common understory species 3' to 20' tall	Southern arrow-wood, Northern spicebush, hazelnut, green ash, winterberry holly	Southern arrow-wood, red maple, Northern spicebush	Northern spicebush, pin oak, American holly, beech, Tartatrian honeysuckle, sweet pepperbush, highbush blueberry	winterberry holly, Northern spicebush, flowering dogwood, ironwood, crabapple		
8. Percent of understory cover 3' to 20' tall	100%	80%	55%	50%		
9. Number of woody plant species 3' to 20' tall	15	9	11	13		
10. Common understory species 0' to 3' tall	poison ivy, Solomon's seal, jewelweed, common greenbrier, Virginia creeper, skunk cabbage, strawberry bush, blackberry, sedges, stout wood reed	Common greenbrier, Virginia creeper, Mayapple, poison ivy, Solomon's seal	Virginia creeper, sensitive fern, common greenbrier, jewelweed, greater bladder sedge, blackberry, southern arrow-wood, bristly dewberry, Jack-in-the-pulpit, mayapple, poison ivy, skunk cabbage	white oak, beech, common greenbrier, Vriginia creeper, blackberry, Japanese honeysuckle, Northern spicebsuh, Sedge species, hog peanut, sensitive fern, mayapple, Jack-in-the-pulpit		
11. Percent of herbaceous & woody plant cover 0' to 3' tall	100%	100%	100%	90%		
12. List of major invasive plant species & percent of cover	Chinese privet, Japanese stiltgrass, garlic mustard, Japanese barberry, cleavers, Tartarian honeysuckle, common mugwort, multiflora rose. 25% invasive coverage	English ivy, periwinkle, multiflora rose, Japanese honeysuckle. 10% invasive coverage	Japanese honeysuckle, hog peanut, multiflora rose, Tartaruan honeysuckle, garlic mustard, Japanese stiltgrass, cleavers. 21% invasive coverage	Japanese honeysuckle, garlic mustard, hog peanut. 10% invasive coverage		
13. Number of standing dead trees ≥6" dbh per acre	5	0	17.5	20		
14. Comments						
15. Priority (1,2,3)	1	1	1	1		

FOREST STAND DELINEATION - FOREST STAND SUMMARY SHEET

Project Name: BEP Traffic Mitigation

Prepared By: JH/DRC

Owner: BARC									
Location: BARC	_		Date: 10.12.2023						
Stand Variable	Stand # 5	Stand #6	Stand # 7	Stand #					
1. Dominant species/ Codominant	Oak/Hickory	Red maple/sweetgum							
species 2 Successional stage	Mature	Mature							
3. Basal area in s.f. per acre	110	110							
	12-19.9"	12-19.9"							
4. Size class of dominant species	12 19.9	12 19.9							
5. Percent of canopy closure	80%	100%							
6. Average number of tree species per plot	4	2							
7. Common understory species 3' to 20' tall	tulip poplar, poison ivy, ironwood, persimmon, green ash, staghorn sumac, Asiatic bittersweet, porcelain berry	black cherry, poison ivy, southern arrowwood, green ash							
8. Percent of understory cover 3' to 20' tall	100%	80%							
9. Number of woody plant species 3' to 20' tall	8	4							
10. Common understory species 0' to 3' tall	blackberry, black raspberry, Japanese barberry, Christmas fern, Virginia jumpseed, lurid sedge, false nettle, strawberry bush, partridge berry, greenbrier	Common greenbrier							
11. Percent of herbaceous & woody plant cover 0' to 3' tall	100%	100%							
12. List of major invasive plant species & percent of cover	Asiatic bittersweet, multiflora rose, bush honeysuckle, Japanese honeysuckle, Japanese barberry, English ivy, Japanese stiltgrass. 40% invasive coverage	Japanese honeysuckle, Asiatic bittersweet, English ivy, bush honeysuckle, Chinese privet. 35% invasive coverage							
13. Number of standing dead trees ≥6" dbh per acre	0	1							
14. Comments									
15. Priority (1,2,3)	3	1							

APPENDIX B

Figures

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BEP Traffic and Utility Mitigation Vicinity Map 2023



Traffic Improvements **Utility Work**



Sanitary Sewer Alternative 1

Sanitary Sewer Alternative 2



CPF Improvements BEP Boundary









BEP Traffic Mitigation Forest Stand Delineation 2023



Specimen Tree

Project Area Stand T1

Stand T2

0



Stand T4 Stand T5



BEP Traffic Mitigation Forest Stand Delineation 2023







APPENDIX C

Specimen Tree List

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BEP Traffic Mitigation Specimen Trees			
BEP Specimen Tree	Scientific Name	Common Name	Diameter Breast Height (Inches)
1	Quercus phellos	Willow Oak	40
2	Quercus alba	White Oak	49
3	Acer rubrum	Red Maple	49
4	Liquidambar styraciflua	Sweetgum	35
5	Liquidambar styraciflua	Sweetgum	35
6	Liquidambar styraciflua	Sweetgum	38
7	Liquidambar styraciflua	Sweetgum	35
8	Liquidambar styraciflua	Sweetgum	33
9	Liquidambar styraciflua	Sweetgum	31
10	Liquidambar styraciflua	Sweetgum	33
11	Liquidambar styraciflua	Sweetgum	31
12	Liquidambar styraciflua	Sweetgum	31
13	Quercus alba		34.5
14	Liquidambar styraciflua	Sweetgum	32
15	Liquidambar styraciflua	Sweetgum	37
16	Liquidambar styraciflua	Sweetgum	35
17	Quercus alba	White Oak	39
18	Quercus alba	White Oak	38

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3653	APPENDIX E:
3654	COASTAL ZONE MANAGEMENT ACT (CZMA) FEDERAL
3655	CONSISTENCY DETERMINATION

1 SITE LOCATION AND DETAILS

The Bureau of Engraving and Printing (BEP) intends to construct and operate a replacement currency production facility (CPF) on land previously owned by the U.S. Department of Agriculture (USDA) at the Beltsville Agricultural Research Center (BARC) in Beltsville, Prince George's County, Maryland (MD). As part of this action, several traffic intersections were identified as needing improvement to accommodate the increased traffic expected from the replacement CPF. In addition to the traffic improvements, a new entrance road for the replacement CPF is proposed, along with associated road repaving and regrading. Construction of a new gravel road to access two wells will be required by USDA since the replacement CPF will remove the current access route (U.S. Department of the Treasury 2021). New utility infrastructure will also be required as a result of the new facility, including construction of a new sanitary sewer main and gas line connection, and installation of new aboveground electric and telecommunications service lines. Temporary construction measures associated with the project include use of a 7-acre construction laydown area and clearance of a bioswale maintenance path. All traffic, utility, and construction measures and the location of the replacement CPF are shown in **Figure 1-1**.

The purpose of the project is to meet the traffic, utility, and construction-related improvements as outlined in the 2021 Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF in the National Capital Region (hereafter referred to as the Bureau of Engraving and Printing's [BEP's] 2021 EIS) and as determined by design changes that have come about after the Record of Decision signature. The proposed improvements are needed to ensure the traffic level of service at each identified failing intersection meets the applicable thresholds with the increase in traffic anticipated from the construction and operation of the replacement CPF in Beltsville. It is also necessary to ensure utility systems in place are sufficient to support the replacement CPF at the chosen site on BARC and to support construction-related laydown areas identified in the most recent CPF design.

2 PROPOSED PROJECT DESCRIPTION

The Proposed Action is to implement roadway improvements and/or realignments at the seven intersections identified as needing improvement in the BEP's 2021 EIS as well as additional locations adjacent to the CPF site, to construct an entrance road for the new CPF site and an access road for the two existing USDA wells in the vicinity of the CPF site, and to provide utility access to the CPF site, which includes new alignments for electric, telecommunications, and gas lines, as well as construction of a new sanitary sewer line from the replacement CPF that ties into the Washington Suburban Sanitary Commission (WSSC) sanitary sewer system.

Based on the results of the TIS and BEP's 2021 EIS, intersections to be redeveloped include:

- Edmonston Road at Sunnyside Avenue, maintained by Maryland State Highway Administration (SHA) and Prince George's County;
- Edmonston Road at Beaver Dam Road, maintained by SHA and Prince George's County;
- Edmonston Road at Powder Mill Road, maintained by USDA, SHA, and Prince George's County;
- Powder Mill Road at Animal Husbandry Road, maintained by USDA;
- Powder Mill Road at Springfield Road, maintained by USDA and Prince George's County;



Figure 1-1: Project Location Map

- Powder Mill Road at Baltimore-Washington Parkway northbound ramps, maintained by USDA and National Parks Service (NPS); and
- Powder Mill at Baltimore-Washington Parkway southbound ramps, maintained by USDA and NPS (BEP 2020).

One of the intersections – Powder Mill Road at Animal Husbandry Road – was included in the Proposed Action of BEP's 2021 EIS; however, based on the updated design, the limits of disturbance for this intersection have changed. The intersection improvements could include, but are not limited to, lane widening, addition of turn lanes, addition of new signage, and addition of traffic control devices. All work on SHA roadways will conform to the latest approved SHA specifications, including Standard Specifications for Construction and Materials, Book of Standards for Highway and Incidental Structures, and Manual on Uniform Traffic Control Devices.

In addition to the intersections identified in BEP's 2021 EIS, the following traffic improvements are also proposed.

- Removal of a portion of Poultry Road to accommodate the CPF facility parking lot and repaving of the remaining portion to improve the entrance to the parking lot of BARC Building 229
- Regrading and repaying a portion of Sheep Road by its intersection with Powder Mill Road
- Construction of a new entrance road for the CPF site; part of the entrance road's footprint is included in the scope of BEP's 2021 EIS
- Minor improvements to Animal Husbandry Road associated with the new CPF entrance road
- Construction of a new gravel road to access two existing USDA wells southeast of the CPF site
- Installation of additional roadway signage along Powder Mill Road and Edmonston Road.
- Removal of rumble strips along Powder Mill Road from Edmonston Road to Baltimore-Washington Parkway.

The proposed utility improvements to provide service to the CPF site are as follows.

- Installation of new aboveground Potomac Electric Power Corporation (PEPCO) electric lines on existing poles along both sides of Odell Road from its intersection with Edmonston Road to the CPF site. Some existing poles are in degraded condition and may require full replacement.
- Installation of new aboveground lines to provide Verizon service running on existing poles from the intersection of Odell Road and Edmonston Road to the CPF site, and from Ellington Drive, south of Muikirk Road, to Odell Road and west to the CPF site. Some existing poles are in degraded condition and may require full replacement.
- Installation of a new Washington Gas connection south of Odell Road and east of Poultry Road and the new CPF.
- Construction of a new sanitary sewer line running from the CPF site and tying into the WSSC sanitary sewer system. Under Alternative 1, the sanitary sewer line would run north from the CPF site and tie into the WSSC sanitary sewer system north of Odell Road. Under Alternative 2, the sanitary sewer line would run southwest from the CPF site and would tie into the WSSC sanitary sewer system west of the Edmonston Road and Powder Mill Road

intersection. Wastewater would be treated at the Blue Plains Advanced Wastewater Treatment Plant (WWTP), which is the WWTP used by BEP's existing facilities in the Washinton, D.C. area. BEP would pre-treat all industrial wastewater to WSSC standards in-house prior to discharge into the WSSC system.

A 7.5-acre laydown area south of the replacement CPF site will be temporarily used for parking and storage during construction. A bioswale maintenance access will be cleared west of the CPF site to access and maintain a planned bioswale.

Figures 2-1 and **2-2** show the Project Areas for Alternatives 1 and 2 respectively. **Figure 2-3** shows the alignment alternatives for the sanitary sewer line; all other proposed traffic, utility, and construction measures are the same under both action alternatives.

3 PUBLIC PARTICIPATION

The Draft EA will be released for a 30-day public review and comment period. A notice of availability (NOA) will be published in Washington Post, Greenbelt News Review, Prince George's Sentinel, and Beltsville News and the Draft EA will be published and available for review at the following public libraries:

- Prince George's County Memorial Library System, Beltsville Branch, 4319 Sellman Rd, Beltsville, MD 20705
- Prince George's County Memorial Library System, Greenbelt Branch, 11 Crescent Rd, Greenbelt, MD 20770
- College Park Community Library, 9704 Rhode Island Ave, College Park, MD 20740

4 AGENCY CONSULTATIONS

BEP has initiated consultation with U.S. Fish and Wildlife Service, NOAA Fisheries Service, NOAA National Marine Fisheries Service, Maryland Department of Natural Resources, Maryland Department of the Environment, and Maryland Historical Trust. Copies of these correspondences will be provided in Appendix B of the Draft and Final EA. Additionally, BEP will submit the Draft EA to the Maryland State Clearinghouse for review.

5 REFERENCES

United States Department of the Treasury. 2021. Final Environmental Impact Statement for the Construction and Operation of a Currency Production Facility (CPF) within the National Capital Region. June 2021. Retrieved from: https://www.nab.usace.army.mil/Portals/63/docs/BEP/FEIS/BEP_FINAL_EIS-Final_EIS.pdf.



Figure 2-1: Alternative 1 (Preferred Alternative)



Figure 2-2: Alternative 2



Figure 2-3: Sanitary Sewer Alignment Alternatives

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3656	APPENDIX F:
3657	INFORMATION FOR PLANNING AND CONSULTATION (IPAC)
3658	REPORT



United States Department of the Interior

FISH AND WILDLIFE SERVICE Chesapeake Bay Ecological Services Field Office 177 Admiral Cochrane Drive Annapolis, MD 21401-7307 Phone: (410) 573-4599 Fax: (410) 266-9127



In Reply Refer To: Project code: 2023-0057242 Project Name: BEP Traffic Mitigation December 11, 2023

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

Subject: Technical assistance for 'BEP Traffic Mitigation'

Dear Ariel Poirier:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on December 11, 2023, for 'BEP Traffic Mitigation' (here forward, Project). This project has been assigned Project Code 2023-0057242 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project. **Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.**

Determination for the Northern Long-Eared Bat

Based on your IPaC submission and the standing analysis for the Dkey, your project has reached the determination of "May Affect" the northern long-eared bat.

Next Steps

Your action may qualify for the Interim Consultation Framework for the northern long-eared bat. To determine if it qualifies, review the Interim Consultation Framework posted here <u>https://www.fws.gov/library/collections/interim-consultation-framework-northern-long-eared-bat</u>. If you

determine it meets the requirements of the Interim Consultation Framework, follow the procedures outlined there to complete section 7 consultation.

If your project does **not** meet the requirements of the Interim Consultation Framework, please contact the Chesapeake Bay Ecological Services Field Office for further coordination on this project. Further consultation or coordination with the Service is necessary for those species or designated critical habitats with a determination of "May Affect".

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

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

Monarch Butterfly Danaus plexippus Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the species listed above.

Appendix F, Information for Planning and Consultation (IPaC) Report

Project code: 2023-0057242

Action Description

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

1. Name

BEP Traffic Mitigation

2. Description

The following description was provided for the project 'BEP Traffic Mitigation':

This project includes traffic and utility mitigation actions that would be incorporated if the proposed Bureau of Engraving and Printing (BEP) replacement currency production facility (CPF) is constructed at the Beltsville Agricultural Research Facility (BARC). The intersections to be mitigated include: Edmonston Rd at Powder Mill Rd, Edmonston Rd at Beaver Dam Rd, Edmonston Rd at Sunnyside Ave, Powder Mill Rd at Animal Husbandry Rd, Powder Mill Rd at Springfield Rd, Powder Mill Rd at I-295 SB ramp, and Powder Mill Rd at I-295 NB ramp. Intersection improvements could include road widening, redesigning lanes, and installing traffic signals, among others. Stormwater management and erosion and sediment control measures would be implemented and street lights may be installed. This project would also include the construction of a well access road off of Poultry Rd to the east and utility mitigation measures for a new sanitary sewer connection. Utility measures would include a new connection point from the CPF facility to the WSSC sanitary sewer line, either just north of Odell Rd near the project site or southwest from the project site to a connection point just southwest of the Edmonston Rd and Powder Mill Rd intersection. Other project site improvements would include: a construction lavdown area just southwest of the CPF site, regrading/repaying of portions of Animal Husbandry Rd and Sheep Rd in the vicinity of the new CPF entrance road, removal of rumble strips along Powder Mill Rd, and installation of new PEPCO electrical lines and Verizon lines on existing poles along Odell Rd.

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@39.03314065,-76.85365447700266,14z</u>

Appendix F, Information for Planning and Consultation (IPaC) Report

Project code: 2023-0057242



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

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

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

No

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

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

No

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

Yes

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

No

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

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

Yes

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

No

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

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

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

No

9. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

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

Automatically answered

No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

11. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities? (If unsure, answer "Yes.")

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

Yes

- 12. Will the action cause effects to a bridge?
 - No
- 13. Will the action result in effects to a culvert or tunnel? *No*
- 14. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

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

No

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

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

Yes

17. Will any new road go through any area of contiguous forest that is greater than or equal to 10 acres in total extent?

Note: "Contiguous forest" of 10 acres or more may includes areas where multiple forest patches are separated by less than 1,000 feet of non-forest if the forested patches, added together, comprise at least 10 acres.

Yes

18. For every 1,000 feet of new road that crosses between contiguous forest patches, will there be at least one place where bats could cross the road corridor by flying less than 33 feet (10 meters) between trees whose tops are at least 66 feet (20 meters) higher than the road surface?

Yes

19. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)? *No*

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

No

21. Will the action include drilling or blasting?

No

- 22. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)? *No*
- 23. Will the proposed action involve the use of herbicides or pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?No
- 24. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

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

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

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

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

No

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

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

Yes

PROJECT QUESTIONNAIRE

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

3.92

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

3.92

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

0

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

Yes

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

3.92

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

0

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

No

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

No

IPAC USER CONTACT INFORMATION

Agency:Army Corps of EngineersName:Ariel PoirierAddress:2 Hopkins PlazaCity:BaltimoreState:MDZip:21201Emailariel.b.poirier@usace.army.milPhone:4438315670

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of the Treasury



United States Department of the Interior

FISH AND WILDLIFE SERVICE Chesapeake Bay Ecological Services Field Office 177 Admiral Cochrane Drive Annapolis, MD 21401-7307 Phone: (410) 573-4599 Fax: (410) 266-9127



In Reply Refer To: Project Code: 2023-0057242 Project Name: BEP Traffic Mitigation November 13, 2023

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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

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

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

11/13/2023

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

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

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

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

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

2
Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

OFFICIAL SPECIES LIST

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

This species list is provided by:

Chesapeake Bay Ecological Services Field Office

177 Admiral Cochrane Drive Annapolis, MD 21401-7307 (410) 573-4599

PROJECT SUMMARY

Project Code:	2023-0057242
Project Name:	BEP Traffic Mitigation
Project Type:	New Constr - Above Ground
Project Description:	Traffic mitigation actions that will be required if the proposed Bureau of
	Engraving and Printing (BEP) replacement currency production facility is
	constructed at the Beltsville Agricultural Research Facility (BARC). The
	intersections to be mitigated include: Edmonston Rd at Powder Mill Rd,
	Edmonston Rd at Beaver Dam Rd, Edmonston Rd at Sunnyside Ave,
	Powder Mill Rd at Animal Husbandry Rd, Powder Mill Rd at Springfield
	Rd, Powder Mill Rd at I-295 SB ramp, and Powder Mill Rd at I-295 NB
	ramp. Intersection improvements could include road widening,
	redesigning lanes, and installing traffic signals, among others. Stormwater
	management and erosion and sediment control measures would be
	implemented and street lights may be installed. This project would also
	include the construction of a well access road off of Poultry Rd to the east
	and utility mitigation measures for a new sanitary sewer connection.

4

Project Location:

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@39.0331404,-76.85365536192282,14z</u>



Counties: Prince George's County, Maryland

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis	Endangered
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	
INSECTS	
NAME	STATUS
Monarch Butterfly Danaus plexippus	Candidate
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>	

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

6

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

WETLANDS

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> <u>Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT <u>HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML</u> OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency:Army Corps of EngineersName:Ariel PoirierAddress:2 Hopkins PlazaCity:BaltimoreState:MDZip:21201Emailariel.b.poirier@usace.army.milPhone:4438315670

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of the Treasury

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3659	APPENDIX G:
3660	MD DEPARTMENT OF THE ENVIRONMENT EJ SCREENING TOOL
3661	REPORT
3662	

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

South Laurel, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	79%
Spanish	11%
French, Haitian, or Cajun	3%
Other Indo-European	1%
Tagalog (including Filipino)	1%
Other and Unspecified	4%
Total Non-English	21%

Blockgroup: 240338002062 Population: 1,228 Area in square miles: 1.66

COMMUNITY INFORMATION

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LIMITED ENGLISH SPEAKING BREAKDOWN

8%

From Ages 65 and up

Speak Spanish	100%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.



EJ INDEXES FOR THE SELECTED LOCATION

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

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SELECTED VARIABLES		STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES	-				
Particulate Matter (µg/m ³)	7.88	7.84	42	8.08	42
Ozone (ppb)	68.2	66	64	61.6	89
Diesel Particulate Matter (µg/m³)	0.326	0.288	60	0.261	73
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70
Toxic Releases to Air	200	430	45	4,600	32
Traffic Proximity (daily traffic count/distance to road)	160	180	64	210	69
Lead Paint (% Pre-1960 Housing)	0.095	0.32	33	0.3	34
Superfund Proximity (site count/km distance)	0.23	0.13	87	0.13	88
RMP Facility Proximity (facility count/km distance)	0.13	0.42	49	0.43	38
Hazardous Waste Proximity (facility count/km distance)	1.8	2.1	63	1.9	71
Underground Storage Tanks (count/km ²)	0.34	1.9	33	3.9	36
Wastewater Discharge (toxicity-weighted concentration/m distance)		1.2	88	22	75
SOCIOECONOMIC INDICATORS					
Demographic Index	63%	36%	86	35%	85
Supplemental Demographic Index	15%	12%	75	14%	63
People of Color	91%	49%	82	39%	89
Low Income	34%	22%	77	31%	62
Unemployment Rate	13%	6%	89	6%	87
Limited English Speaking Households	3%	3%	70	5%	67
Less Than High School Education	9%	10%	61	12%	54
Under Age 5	2%	6%	24	6%	26
Over Age 64	8%	16%	19	17%	18
Low Life Expectancy	19%	19%	48	20%	42

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <u>https://www.epa.gov/haps/air-toxics-data-update</u>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	0
Air Pollution	0
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools 0	I
Hospitals 0	l
Places of Worship 1	

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	Yes

HEALTH INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Low Life Expectancy	19%	19%	48	20%	42	
Heart Disease	3.1	5.3	6	6.1	4	
Asthma	9.7	9.9	52	10	46	
Cancer	4	6.1	10	6.1	11	
Persons with Disabilities	12.3%	11.8%	61	13.4%	48	

CLIMATE INDICATORS							
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE		
Flood Risk	2%	7%	32	12%	23		
Wildfire Risk	0%	1%	0	14%	0		

CRITICAL SERVICE GAPS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	1%	11%	17	14%	13
Lack of Health Insurance	8%	6%	78	9%	59
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Prince George's County, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	65%
Spanish	8%
Russian, Polish, or Other Slavic	1%
Other Indo-European	3%
Korean	1%
Tagalog (including Filipino)	1%
Other Asian and Pacific Island	4%
Other and Unspecified	16%
Total Non-English	35%

Blockgroup: 240338004111 Population: 2,765 Area in square miles: 12.91

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

18%

From Ages 65 and up

Speak Spanish	100%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES





EJ INDEXES FOR THE SELECTED LOCATION

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

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SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m ³)	7.91	7.84	46	8.08	42
Ozone (ppb)	68.1	66	63	61 <u>.</u> 6	89
Diesel Particulate Matter (µg/m ³)	0.267	0.288	40	0.261	62
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70
Toxic Releases to Air	190	430	43	4,600	31
Traffic Proximity (daily traffic count/distance to road)	56	180	35	210	42
Lead Paint (% Pre-1960 Housing)	0.11	0.32	36	0.3	37
Superfund Proximity (site count/km distance)	0.15	0.13	77	0.13	79
RMP Facility Proximity (facility count/km distance)	0.11	0.42	42	0.43	31
Hazardous Waste Proximity (facility count/km distance)	0.8	2.1	46	1.9	57
Underground Storage Tanks (count/km ²)	0.25	1.9	30	3.9	33
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00079	1.2	66	22	46
SOCIOECONOMIC INDICATORS					
Demographic Index	54%	36%	76	35%	78
Supplemental Demographic Index	10%	12%	47	14%	33
People of Color	86%	49%	78	39%	86
Low Income	22%	22%	58	31%	40
Unemployment Rate	7%	6%	70	6%	68
Limited English Speaking Households	1%	3%	59	5%	58
Less Than High School Education	4%	10%	31	12%	28
Under Age 5	5%	6%	49	6%	50
Over Age 64	18%	16%	63	17%	60
Low Life Expectancy	16%	19%	18	20%	15

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <u>https://www.epa.gov/haps/air-toxics-data-update</u>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	1
Water Dischargers	5
Air Pollution	7
Brownfields	0
Toxic Release Inventory	2

Other community features within defined area:

Schools	D
Hospitals (J
Places of Worship 6	3

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	No

HEALTH INDICATORS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	16%	19%	18	20%	15
Heart Disease	4	5.3	19	6.1	12
Asthma	9.3	9.9	38	10	33
Cancer	4.8	6.1	23	6.1	22
Persons with Disabilities	12.2%	11.8%	61	13.4%	48

CLIMATE INDICATORS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	4%	7%	54	12%	38
Wildfire Risk	0%	1%	0	14%	0

CRITICAL SERVICE GAPS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	2%	11%	20	14%	14
Lack of Health Insurance	10%	6%	86	9%	70
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Beltsville, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	37%
Spanish	36%
French, Haitian, or Cajun	1%
Russian, Polish, or Other Slavic	1%
Other Indo-European	8%
Korean	1%
Chinese (including Mandarin, Cantonese)	4%
Tagalog (including Filipino)	1%
Other Asian and Pacific Island	5%
Arabic	1%
Other and Unspecified	4%
Total Non-English	63%

Blockgroup: 240338074042 Population: 2,499 Area in square miles: 1.61

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

4%

From Ages 65 and up

Speak Spanish	100%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

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EJ INDEXES FOR THE SELECTED LOCATION

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m ³)	7.91	7.84	47	8.08	42
Ozone (ppb)	67.1	66	56	61.6	85
Diesel Particulate Matter (µg/m³)	0.389	0.288	80	0.261	82
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70
Toxic Releases to Air	220	430	47	4,600	33
Traffic Proximity (daily traffic count/distance to road)	1,000	180	98	210	96
Lead Paint (% Pre-1960 Housing)	0.15	0.32	41	0.3	42
Superfund Proximity (site count/km distance)	0.42	0.13	94	0.13	93
RMP Facility Proximity (facility count/km distance)	0.13	0.42	49	0.43	38
Hazardous Waste Proximity (facility count/km distance)	3.1	2.1	76	1.9	82
Underground Storage Tanks (count/km ²)	5.6	1.9	91	3.9	79
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0005	1.2	63	22	42
SOCIOECONOMIC INDICATORS					
Demographic Index	52%	36%	73	35%	76
Supplemental Demographic Index	12%	12%	61	14%	48
People of Color	83%	49%	76	39%	85
Low Income	20%	22%	55	31%	38
Unemployment Rate	7%	6%	69	6%	68
Limited English Speaking Households	7%	3%	86	5%	80
Less Than High School Education	15%	10%	79	12%	71
Under Age 5	15%	6%	96	6%	96
Over Age 64	4%	16%	7	17%	7
Low Life Expectancy	13%	19%	5	20%	3

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	1
Water Dischargers	24
Air Pollution	. 53
Brownfields	. 0
Toxic Release Inventory	. 2

Other community features within defined area:

Schools	0
Hospitals	0
Places of Worship	1

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	No

HEALTH INDICATORS							
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE							
Low Life Expectancy	13%	19%	5	20%	3		
Heart Disease	4.1	5.3	21	6.1	13		
Asthma	8.6	9.9	19	10	15		
Cancer	4.5	6.1	18	6.1	18		
Persons with Disabilities	7.8%	11.8%	25	13.4%	17		

CLIMATE INDICATORS						
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENT						
Flood Risk	20%	7%	94	12%	85	
Wildfire Risk	0%	1%	0	14%	0	

CRITICAL SERVICE GAPS								
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE								
Broadband Internet	3%	11%	26	14%	19			
Lack of Health Insurance	21%	6%	97	9%	93			
Housing Burden	No	N/A	N/A	N/A	N/A			
Transportation Access	Yes	N/A	N/A	N/A	N/A			
Food Desert	Yes	N/A	N/A	N/A	N/A			

Footnotes

SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Prince George's County, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	82%
Spanish	6%
French, Haitian, or Cajun	1%
Other Indo-European	2%
Chinese (including Mandarin, Cantonese)	3%
Vietnamese	2%
Other Asian and Pacific Island	1%
Other and Unspecified	1%
Total Non-English	18%

Blockgroup: 240338074081 Population: 2,012 Area in square miles: 6.77

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

12%

From Ages 65 and up

Speak Spanish	36%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	64%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control. 10

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Particulate

Matter

Ozone

Diese

Particulate

Matter

Air

Toxics

Cance

Risk*

Air

Toxics

Respiratory

HI

Toxic

Releases

To Air

Traffic

Proximity

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES



he EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of colc populations with a single environmental indicator.

SUPPLEMENTAL INDEXES

Lead

Paint

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

Superfund

Proximity

RMF

Facility

Proximity

Hazardous

Waste

Proximity

Underground Wastewater

Discharge

Storage Tanks



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

State Percentile

National Percentile

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SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m³)	7.89	7.84	43	8.08	42
Ozone (ppb)	67.5	66	58	61.6	87
Diesel Particulate Matter (µg/m ³)	0.323	0.288	59	0.261	72
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70
Toxic Releases to Air	200	430	45	4,600	32
Traffic Proximity (daily traffic count/distance to road)	100	180	52	210	58
Lead Paint (% Pre-1960 Housing)	0.54	0.32	74	0.3	76
Superfund Proximity (site count/km distance)	0.55	0.13	96	0.13	95
RMP Facility Proximity (facility count/km distance)	0.12	0.42	48	0.43	37
Hazardous Waste Proximity (facility count/km distance)	3.3	2.1	78	1.9	83
Underground Storage Tanks (count/km ²)	0.59	1.9	40	3.9	41
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.001	1.2	68	22	49
SOCIOECONOMIC INDICATORS					
Demographic Index	47%	36%	67	35%	71
Supplemental Demographic Index	13%	12%	64	14%	51
People of Color	62%	49%	62	39%	73
Low Income	31%	22%	73	31%	57
Unemployment Rate	3%	6%	39	6%	40
Limited English Speaking Households	4%	3%	78	5%	73
Less Than High School Education	9%	10%	63	12%	56
Under Age 5	7%	6%	67	6%	67
Over Age 64	12%	16%	35	17%	33
Low Life Expectancy	17%	19%	26	20%	24

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	1
Hazardous Waste, Treatment, Storage, and Disposal Facilities	3
Water Dischargers	7
Air Pollution	10
Brownfields	0
Toxic Release Inventory	1

Other community features within defined area:

Schools 1
Hospitals 0
Places of Worship 0

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	No

HEALTH INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Low Life Expectancy	17%	19%	26	20%	24	
Heart Disease	4	5.3	19	6.1	12	
Asthma	8.3	9.9	14	10	10	
Cancer	5.8	6.1	46	6.1	41	
Persons with Disabilities	11.1%	11.8%	52	13.4%	40	

CLIMATE INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Flood Risk	3%	7%	37	12%	27	
Wildfire Risk	0%	1%	0	14%	0	

CRITICAL SERVICE GAPS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	2%	11%	20	14%	15
Lack of Health Insurance	5%	6%	51	9%	33
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Footnotes

SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Beltsville, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	82%
Spanish	6%
French, Haitian, or Cajun	1%
Other Indo-European	2%
Chinese (including Mandarin, Cantonese)	3%
Vietnamese	2%
Other Asian and Pacific Island	1%
Other and Unspecified	1%
Total Non-English	18%

Blockgroup: 240338074083 Population: 1,953 Area in square miles: 3.89

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

9%

From Ages 65 and up

Speak Spanish	52%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	48%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES



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EJ INDEXES FOR THE SELECTED LOCATION

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA		
POLLUTION AND SOURCES							
Particulate Matter (µg/m ³)	7.89	7.84	43	8.08	42		
Ozone (ppb)	67.5	66	58	61.6	87		
Diesel Particulate Matter (µg/m ³)	0.323	0.288	59	0.261	72		
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52		
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70		
Toxic Releases to Air	240	430	48	4,600	34		
Traffic Proximity (daily traffic count/distance to road)	120	180	56	210	62		
Lead Paint (% Pre-1960 Housing)	0.16	0.32	43	0.3	44		
Superfund Proximity (site count/km distance)	0.42	0.13	94	0.13	93		
RMP Facility Proximity (facility count/km distance)	0.18	0.42	62	0.43	53		
Hazardous Waste Proximity (facility count/km distance)	4.4	2.1	84	1.9	87		
Underground Storage Tanks (count/km ²)	0.64	1.9	41	3.9	42		
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00055	1.2	64	22	43		
SOCIOECONOMIC INDICATORS							
Demographic Index	51%	36%	72	35%	75		
Supplemental Demographic Index	10%	12%	49	14%	35		
People of Color	93%	49%	84	39%	90		
Low Income	9%	22%	29	31%	16		
Unemployment Rate	7%	6%	74	6%	72		
Limited English Speaking Households	8%	3%	87	5%	81		
Less Than High School Education	9%	10%	62	12%	55		
Under Age 5	4%	6%	41	6%	42		
Over Age 64	9%	16%	22	17%	22		
Low Life Expectancy	17%	19%	26	20%	24		

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <u>https://www.epa.gov/haps/air-toxics-data-update</u>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	2
Water Dischargers	14
Air Pollution	27
Brownfields	. 1
Toxic Release Inventory	3

Other community features within defined area:

Schools	1
Hospitals	0
Places of Worship	1

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	No

HEALTH INDICATORS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	17%	19%	26	20%	24
Heart Disease	4	5.3	19	6.1	12
Asthma	8.3	9.9	14	10	10
Cancer	5.8	6.1	46	6.1	41
Persons with Disabilities	11.1%	11.8%	52	13.4%	40

CLIMATE INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Flood Risk	6%	7%	62	12%	45	
Wildfire Risk	0%	1%	0	14%	0	

CRITICAL SERVICE GAPS						
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE						
Broadband Internet	5%	11%	37	14%	27	
Lack of Health Insurance	5%	6%	51	9%	33	
Housing Burden	No	N/A	N/A	N/A	N/A	
Transportation Access	Yes	N/A	N/A	N/A	N/A	
Food Desert	No	N/A	N/A	N/A	N/A	

Footnotes

SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

South Laurel, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	79%
Spanish	11%
French, Haitian, or Cajun	3%
Other Indo-European	1%
Tagalog (including Filipino)	1%
Other and Unspecified	4%
Total Non-English	21%

Tract: 24033800206 Population: 4,041 Area in square miles: 3.07

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

9%

From Ages 65 and up

Speak Spanish	100%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

Environmental Justice & Supplemental Indexes

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EJ INDEXES



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EJ INDEXES FOR THE SELECTED LOCATION

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA	
POLLUTION AND SOURCES						
Particulate Matter (µg/m ³)	7.88	7.84	42	8.08	42	
Ozone (ppb)	68.2	66	64	61.6	89	
Diesel Particulate Matter (µg/m ³)	0.326	0.288	60	0.261	73	
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52	
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70	
Toxic Releases to Air	210	430	46	4,600	33	
Traffic Proximity (daily traffic count/distance to road)	250	180	76	210	79	
Lead Paint (% Pre-1960 Housing)	0.065	0.32	26	0.3	29	
Superfund Proximity (site count/km distance)	0.2	0.13	85	0.13	85	
RMP Facility Proximity (facility count/km distance)	0.14	0.42	54	0.43	44	
Hazardous Waste Proximity (facility count/km distance)	1.3	2.1	56	1.9	65	
Underground Storage Tanks (count/km ²)	0.64	1.9	42	3.9	42	
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.049	1.2	90	22	78	
SOCIOECONOMIC INDICATORS						
Demographic Index	54%	36%	76	35%	77	
Supplemental Demographic Index	12%	12%	61	14%	48	
People of Color	83%	49%	76	39%	85	
Low Income	24%	22%	61	31%	44	
Unemployment Rate	8%	6%	78	6%	76	
Limited English Speaking Households	3%	3%	74	5%	70	
Less Than High School Education	8%	10%	53	12%	48	
Under Age 5	3%	6%	26	6%	27	
Over Age 64	9%	16%	23	17%	22	
Low Life Expectancy	19%	19%	48	20%	42	

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	5
Air Pollution	3
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	D
Hospitals (D
Places of Worship	1

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	Yes

HEALTH INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Low Life Expectancy	19%	19%	48	20%	42	
Heart Disease	3.1	5.3	6	6.1	4	
Asthma	9.7	9.9	52	10	46	
Cancer	4	6.1	10	6.1	11	
Persons with Disabilities	12.3%	11.8%	61	13.4%	48	

CLIMATE INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Flood Risk	1%	7%	20	12%	16	
Wildfire Risk	0%	1%	0	14%	0	

CRITICAL SERVICE GAPS								
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE								
Broadband Internet	9%	11%	53	14%	41			
Lack of Health Insurance	8%	6%	78	9%	59			
Housing Burden	Yes	N/A	N/A	N/A	N/A			
Transportation Access	Yes	N/A	N/A	N/A	N/A			
Food Desert	No	N/A	N/A	N/A	N/A			

Footnotes

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Glenn Dale, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	65%
Spanish	8%
Russian, Polish, or Other Slavic	1%
Other Indo-European	3%
Korean	1%
Tagalog (including Filipino)	1%
Other Asian and Pacific Island	4%
Other and Unspecified	16%
Total Non-English	35%

Tract: 24033800411 Population: 4,448 Area in square miles: 13.40

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

22%

From Ages 65 and up

Speak Spanish	28%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	72%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

PERCENTILE

30 20 10

0

Particulate

Matter

Ozone

Diesel

Particulate

Matte

Air

Toxics

Cance Risk* Air

Toxics

Respiratory HI* Toxic

Releases

To Air

Traffic

Proximity

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES



The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

SUPPLEMENTAL INDEXES

Lead

Paint

Superfund

Proximity

RMP

Facility

Proximity

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Hazardous

Waste

Proximity

Underground Wastewater

Discharge

Storage

Tanks

State Percentile

National Percentile

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SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES	•				
Particulate Matter (µg/m ³)	7.91	7.84	46	8.08	42
Ozone (ppb)	68.1	66	63	61 <u>.</u> 6	89
Diesel Particulate Matter (µg/m ³)	0.267	0.288	40	0.261	62
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70
Toxic Releases to Air	180	430	42	4,600	30
Traffic Proximity (daily traffic count/distance to road)	43	180	29	210	37
Lead Paint (% Pre-1960 Housing)	0.082	0.32	30	0.3	32
Superfund Proximity (site count/km distance)	0.14	0.13	74	0.13	77
RMP Facility Proximity (facility count/km distance)	0.099	0.42	39	0.43	29
Hazardous Waste Proximity (facility count/km distance)	0.58	2.1	39	1.9	52
Underground Storage Tanks (count/km ²)	0.15	1.9	27	3.9	30
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00066	1.2	65	22	45
SOCIOECONOMIC INDICATORS					
Demographic Index	50%	36%	70	35%	74
Supplemental Demographic Index	10%	12%	47	14%	33
People of Color	83%	49%	76	39%	85
Low Income	16%	22%	47	31%	30
Unemployment Rate	7%	6%	72	6%	70
Limited English Speaking Households	2%	3%	67	5%	65
Less Than High School Education	7%	10%	53	12%	48
Under Age 5	5%	6%	50	6%	51
Over Age 64	22%	16%	75	17%	72
Low Life Expectancy	16%	19%	18	20%	15

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	1
Water Dischargers	5
Air Pollution	7
Brownfields	0
Toxic Release Inventory	2

Other community features within defined area:

Schools	0
Hospitals	0
Places of Worship	7

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	No

HEALTH INDICATORS							
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE							
Low Life Expectancy	16%	19%	18	20%	15		
Heart Disease	4	5.3	19	6.1	12		
Asthma	9.3	9.9	38	10	33		
Cancer	4.8	6.1	23	6.1	22		
Persons with Disabilities	12.2%	11.8%	61	13.4%	48		

CLIMATE INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Flood Risk	5%	7%	55	12%	39	
Wildfire Risk	0%	1%	0	14%	0	

CRITICAL SERVICE GAPS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	1%	11%	17	14%	13
Lack of Health Insurance	10%	6%	86	9%	70
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes
SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Beltsville, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	37%
Spanish	36%
French, Haitian, or Cajun	1%
Russian, Polish, or Other Slavic	1%
Other Indo-European	8%
Korean	1%
Chinese (including Mandarin, Cantonese)	4%
Tagalog (including Filipino)	1%
Other Asian and Pacific Island	5%
Arabic	1%
Other and Unspecified	4%
Total Non-English	63%

Tract: 24033807404 Population: 5,712 Area in square miles: 2.59

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

8%

From Ages 65 and up

Speak Spanish	84%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	16%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES



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EJ INDEXES FOR THE SELECTED LOCATION

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA			
POLLUTION AND SOURCES								
Particulate Matter (µg/m³)	7.91	7.84	47	8.08	42			
Ozone (ppb)	67.1	66	56	61.6	85			
Diesel Particulate Matter (µg/m ³)	0.389	0.288	80	0.261	82			
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52			
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70			
Toxic Releases to Air	220	430	47	4,600	33			
Traffic Proximity (daily traffic count/distance to road)	530	180	92	210	91			
Lead Paint (% Pre-1960 Housing)	0.24	0.32	52	0.3	52			
Superfund Proximity (site count/km distance)	0.38	0.13	94	0.13	93			
RMP Facility Proximity (facility count/km distance)	0.15	0.42	55	0.43	45			
Hazardous Waste Proximity (facility count/km distance)	3.5	2.1	79	1.9	83			
Underground Storage Tanks (count/km ²)	3.7	1.9	81	3.9	71			
Wastewater Discharge (toxicity-weighted concentration/m distance)		1.2	62	22	42			
SOCIOECONOMIC INDICATORS								
Demographic Index	52%	36%	74	35%	76			
Supplemental Demographic Index	13%	12%	66	14%	53			
People of Color	82%	49%	75	39%	84			
Low Income	23%	22%	59	31%	42			
Unemployment Rate	7%	6%	74	6%	72			
Limited English Speaking Households	8%	3%	87	5%	81			
Less Than High School Education	16%	10%	82	12%	75			
Under Age 5	9%	6%	82	6%	83			
Over Age 64	8%	16%	18	17%	18			
Low Life Expectancy	13%	19%	5	20%	3			

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	1
Water Dischargers	30
Air Pollution	60
Brownfields	. 0
Toxic Release Inventory	. 2

Other community features within defined area:

Schools 1
Hospitals 0
Places of Worship 4

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	Yes

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	13%	19%	5	20%	3
Heart Disease	4.1	5.3	21	6.1	13
Asthma	8.6	9.9	19	10	15
Cancer	4.5	6.1	18	6.1	18
Persons with Disabilities	7.8%	11.8%	25	13.4%	17

CLIMATE INDICATORS						
INDICATOR	HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US					
Flood Risk	13%	7%	88	12%	74	
Wildfire Risk	0%	1%	0	14%	0	

CRITICAL SERVICE GAPS						
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE						
Broadband Internet	7%	11%	44	14%	34	
Lack of Health Insurance	21%	6%	97	9%	93	
Housing Burden	No	N/A	N/A	N/A	N/A	
Transportation Access	Yes	N/A	N/A	N/A	N/A	
Food Desert	Yes	N/A	N/A	N/A	N/A	

Footnotes

SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Beltsville, MD



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	82%
Spanish	6%
French, Haitian, or Cajun	1%
Other Indo-European	2%
Chinese (including Mandarin, Cantonese)	3%
Vietnamese	2%
Other Asian and Pacific Island	1%
Other and Unspecified	1%
Total Non-English	18%

Tract: 24033807408 Population: 5,883 Area in square miles: 11.01

COMMUNITY INFORMATION



LIMITED ENGLISH SPEAKING BREAKDOWN

15%

From Ages 65 and up

Speak Spanish	45%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	55%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

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Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES



The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

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EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m ³)	7.89	7.84	43	8.08	42
Ozone (ppb)	67.5	66	58	61 <u>.</u> 6	87
Diesel Particulate Matter (µg/m³)	0.323	0.288	59	0.261	72
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	18	25	52
Air Toxics Respiratory HI*	0.4	0.34	50	0.31	70
Toxic Releases to Air	210	430	45	4,600	32
Traffic Proximity (daily traffic count/distance to road)	91	180	48	210	54
Lead Paint (% Pre-1960 Housing)	0.47	0.32	70	0.3	71
Superfund Proximity (site count/km distance)	0.47	0.13	95	0.13	94
RMP Facility Proximity (facility count/km distance)	0.14	0.42	53	0.43	42
Hazardous Waste Proximity (facility count/km distance)	3.5	2.1	79	1.9	83
Underground Storage Tanks (count/km ²)	0.98	1.9	49	3.9	47
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00083	1.2	66	22	47
SOCIOECONOMIC INDICATORS					
Demographic Index	39%	36%	58	35%	64
Supplemental Demographic Index	10%	12%	49	14%	35
People of Color	62%	49%	62	39%	73
Low Income	17%	22%	49	31%	32
Unemployment Rate	5%	6%	58	6%	58
Limited English Speaking Households	4%	3%	76	5%	71
Less Than High School Education	7%	10%	52	12%	47
Under Age 5	6%	6%	59	6%	60
Over Age 64	15%	16%	49	17%	46
Low Life Expectancy	17%	19%	26	20%	24

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	1
Hazardous Waste, Treatment, Storage, and Disposal Facilities	5
Water Dischargers	22
Air Pollution	39
Brownfields	1
Toxic Release Inventory	4

Other community features within defined area:

Schools	
Hospitals 0	
Places of Worship 4	

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	No

EJScreen Environmental and Socioeconomic Indicators Data

		HEALTH INDIC	ATORS		
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	17%	19%	26	20%	24
Heart Disease	4	5.3	19	6.1	12
Asthma	8.3	9.9	14	10	10
Cancer	5.8	6.1	46	6.1	41
Persons with Disabilities	11.1%	11.8%	52	13.4%	40

		CLIMATE	INDICATORS		
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	4%	7%	47	12%	33
Wildfire Risk	0%	1%	0	14%	0

	(CRITICAL SERVI	CE GAPS		
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	3%	11%	29	14%	21
Lack of Health Insurance	5%	6%	51	9%	33
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Footnotes

2020 Census Tract Name	Total Population	Final EJ Score Percent	Final EJ Score Percentile
8074.04	5575	38.5	89
8074.08	5804	32.86	69.51
8002.06	3908	34	73.89
8004.11	3958	35.23	79.02

MDE Final EJ Score

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			MDE Overbu	Irdened Comi	munities Com	bined Scor	e		
				Overburdened	Overburdened				
		Overburdened	Overburdened	Pollution	Pollution	Sensitive	Sensitive		
2020 Census	Total	Exposure	Exposure	Environmental	Environmental	Population	Population	Overburdened	Overburdened
Tract Name	Population	Percent	Percentile	Percent	Percentile	Percent	Percentile	All Percent	All Percentile
8074.04	5,575	52.36	93.1	10.71	66.71	74.31	82.09	86.74	95.01
8004.11	3,958	46.31	48.46	9.3	60.7	76.83	87.01	76.35	74 [.] 47
8074.08	5,804	48.55	73.41	11.33	69.65	68.38	69.58	71.77	85.44
8002.06	3,908	47.45	63.7	15.66	83.94	57.02	43.88	60.7	72.32

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						Demographic Score
2020 Census	Total	Percent	Percent	Percent Limited English	Demographic Score	(Percentile Distribution
Tract Name	Population	Poverty	Minority	Proficiency	(Percent for this tract)	acoss Maryland)
8074.04	5,575	25.12	79.82	9.75	38.23	28.96
8002.06	3,908	22.54	82.65	4.57	36.59	75.46
8074.08	5,804	15.33	62.59	1.22	26.38	56.2
8004.11	3,958	15.2	81.18	2	32.79	68.27

MDF Underserved Communities (Socioeconomic-Demographic) Combined Score

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3663 APPENDIX H:
3664 U.S. CENSUS BUREAU TRIBAL AFFILIATION DATA

		Census Tract 8004.11;	Census Tract 8074.04;	Census Tract 8074.08;
	Census Tract 8002.06; Prince	Prince George's County;	Prince George's County;	Prince George's County;
Geographic Area Name	George's County; Maryland	Maryland	Maryland	Maryland
Estimate!!Total Groups Tallied:	70	47	119	23
Margin of Error!!Total Groups Tallied:	88	60	140	41
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:	0	11	35	23
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:	13	20	53	41
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Apache	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Apache	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Arapaho	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Arapaho	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Blackfeet	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Blackfeet	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Canadian and French American Indian	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Canadian and French American Indian	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Central American Indian	0	0	33	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Central American Indian	13	13	52	19
Estimate!! I otal Groups Tallied:!! American Indian tribes,				
specified:!!Cherokee	0	0	2	0
Margin of Error!! I ofal Groups Talled:!!American Indian	10	10	-	10
Indes, specified:!!Cherokee	13	13	5	19
escified: If Chovenne	0	0	0	0
Aargin of Error I Total Groups Tallied: I American Indian	0	0	0	0
tribes specified II Chevenne	13	13	19	19
Estimate ¹¹ Total Groups Tallied ¹¹ American Indian tribes	10	10	15	10
specified:!!Chickasaw	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Chickasaw	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes.				
specified:!!Chippewa	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Chippewa	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Choctaw	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Choctaw	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Colville	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Colville	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Comanche	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Comanche	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Cree	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Cree	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Creek	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes specified.!!Creek	13	13	19	19

Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Crow	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Crow	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Delaware	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Delaware	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Hopi	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Hopi	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Houma	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Houma	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Iroquois	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Iroquois	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Kiowa	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Kiowa	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Lumbee	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Lumbee	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Menominee	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Menominee	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes.				
specified:!!Mexican American Indian	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Mexican American Indian	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes				
specified:!!Navaio	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes specified:!!Navaio	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes	10	10	10	10
specified IIOsage	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian		°		
tribes specified/IIOsage	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes	10	10	10	10
specified:IIOttawa	0	0	0	0
Margin of Error I Total Groups Tallied: I American Indian	0	0	0	
tribes specified:IIOttawa	13	12	10	10
Estimate II Total Croups Telliodul American Indian tribas	13	15	15	15
escified:11Paiute	0	0	0	0
Margin of Error I Total Groups Talliad II American Indian	0	0	0	0
tribac specified: I Paiute	10	12	10	10
Estimatell Total Croups Tallied: Il American Indian tribes	13	15	19	19
especified:11Pima	0	0	0	0
Margin of Error I Total Groups Talliad II American Indian	0	0	0	0
tribaa anacifiadul Dima	12	10	10	10
Entimetal ITetal Croups Talliad II American Indian tribas	13	15	19	19
escified: I Detowatami	0	0	0	
Specified.::Poldwaloffi	0	0	0	0
tribage appointed UDetowaters:				
undes, specified:!!PotaWatomi	13	13	19	19
Estimate!! I otal Groups Talled:!!American Indian tribes,	_	_	_	_
	0	0	0	0
Margin of Error!! Lotal Groups Lallied:!!American Indian				
tribes, specified:!!Pueblo	13	13	19	19
Estimate!! I otal Groups Talled:!!American Indian tribes,	_	_	_	_
specified:!!Puget Sound Salish	0	0	0	0
margin of Error!! I otal Groups Tallied:!!American Indian				
unnes, specifiedPuget Sound Salisn	13	13	19	19

Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Seminole	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian		10	10	10
tribes, specified:!!Seminole	13	13	19	19
Estimate!! I otal Groups Talled:!!American Indian tribes,	0	0	0	0
Specified.::Shoshone Margin of ErrorIITotal Groups Talliad:IIAmerican Indian	0	0	0	0
tribes specified IIShoshone	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes	10	10	10	10
specified:!!Sioux	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Sioux	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!South American Indian	0	11	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!South American Indian	13	20	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Spanish American Indian	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Spanish American Indian	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Tohono O'Odham	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Tohono O'Odham	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Ute	0	0	0	0
Margin of Error!! I otal Groups Tallied:!!American Indian	10	10	10	10
Indes, specified.!! Ole	13	13	19	19
estimate::Total Groups Tatled.::American indian tribes,	0	0	0	0
Margin of Error I Total Groups Tallied: I American Indian	0	0	0	0
trihes specified IIVakama	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes	10	10	10	10
specified:!!Yaqui	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Yaqui	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!Yuman	0	0	0	0
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!Yuman	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian tribes,				
specified:!!All other American Indian tribes (with only one				
tribe reported)	0	0	0	23
Margin of Error!!Total Groups Tallied:!!American Indian				
tribes, specified:!!All other American Indian tribes (with only		10	10	
one tribe reported)	13	13	19	41
Estimate!! Total Groups Talled:!!American Indian tribes, not	CE.	0	0	0
Specified	60	U	8	0
tribes not specified	80	12	13	10
Estimatel ITotal Groups Tallied: IIAlaska Native tribes	00	13	13	19
specified.	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes				
specified:	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes.	10	10	10	10
specified:!!Alaskan Athabascan	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Alaskan Athabascan	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Aleut	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Aleut	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Inupiat	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Inupiat	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes,	-	_	_	
specified:!!Tungit-Haida	0	0	0	0

Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Tlingit-Haida	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Tsimshian	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Tsimshian	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Yup'ik	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
specified:!!Yup'ik	13	13	19	19
Estimate!!Total Groups Tallied:!!Alaska Native tribes, not				
specified	0	0	0	0
Margin of Error!!Total Groups Tallied:!!Alaska Native tribes,				
not specified	13	13	19	19
Estimate!!Total Groups Tallied:!!American Indian or Alaska				
Native tribes, not specified	5	36	76	0
Margin of Error!!Total Groups Tallied:!!American Indian or				
Alaska Native tribes, not specified	8	57	90	19

3665 APPENDIX I:
3666 FARMLAND CONVERSION IMPACT RATING FORMS

U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

NRCS-CPA-106

(Rev. 1-91)

PART I (To be completed by Federal Agency) 3. Date 1/26		te of Land Evaluation Request 4. Sheet 1 of _		2				
1. Name of Project BEP Traffic and Utilities Mitigation 5. Feder		Federal Agency Involved US Dept of Treasury						
2. Type of Project Roadway and u	utility corridor imp	provements	6. Cour	ity and State Prir	nce Geo	orge's Cour	nty, Maryland	d
PART II (To be completed by NR	CS)		1. Date 2/1 /	Request Received by	/ NRCS	2. Person C Philip (ompleting Form	
3 Does the corridor contain prime unit	rue statewide or local in	nortant farmland	12			4. Acres Irrig	gated Average	Farm Size
(If no, the FPPA does not apply - Do	not complete additiona	l parts of this forr	m).	YES 🗸 NO 🗌		795	l94	
5. Major Crop(s)		6. Farmable La	nd in Gover	nment Jurisdiction		7. Amount of	Farmland As De	fined in FPPA
Corn, soy, small grains		Acres: 34	339	% 11		Acres: 9	1010	% 31
8. Name Of Land Evaluation System U NCCPI	sed	9. Name of Loca None	al Site Asse	ssment System		10. Date Lan 2/16/24	d Evaluation Re	turned by NRCS
BART III /To be completed by Fe	doral Agoney)			Alternati	ve Corri	dor For Seg	ment	
PART III (10 be completed by re	ueral Agency)			Corridor A	Corri	dor B	Corridor C	Corridor D
A. Total Acres To Be Converted Dire	ctly			9.16	9.16			
B. Total Acres To Be Converted Indi	rectly, Or To Receive S	Services		7.25	19.96			
C. Total Acres In Corridor				65.65	77.3	5		
PART IV (To be completed by N	RCS) Land Evaluati	on Information	n					
A. Total Acres Prime And Unique Fa	armland			14	19			
B. Total Acres Statewide And Local	Important Farmland			2	3			
C. Percentage Of Farmland in Cour	tv Or Local Govt. Unit	To Be Converte	ed	0.05	0.08			
D. Percentage Of Farmland in Govt.	Jurisdiction With Same	Or Higher Relat	tive Value	44	46			
PART V (To be completed by NRCS) Land Evaluation Info	rmation Criterior	n Relative					
value of Farmland to Be Serviced of	or Converted (Scale o	f 0 - 100 Points))	66	64			
PART VI (To be completed by Fed	eral Agency) Corrido	r	Maximum					
Assessment Criteria (These criter	ia are explained in 7	CFR 658.5(c))	Points					
1. Area in Nonurban Use			15	9	9			
2. Perimeter in Nonurban Use		10	6	7				
3. Percent Of Corridor Being Farmed		20	5	8				
4. Protection Provided By State And Local Government		20	0	0				
5. Size of Present Farm Unit Compared To Average			10	10	10			
6. Creation Of Nonfarmable Farm	nland		25	0	0			
7. Availablility Of Farm Support S	Services		5	5	5			
8. On-Farm Investments			20	1	5			
9. Effects Of Conversion On Far	m Support Services		25	0	0			
10. Compatibility With Existing Ag	gricultural Use		10	0	0			
TOTAL CORRIDOR ASSESSME	ENT POINTS		160	36	44	(0	0
PART VII (To be completed by Fe	deral Agency)							
Relative Value Of Farmland (From Part V) 10		100	66	64	0		0	
Total Corridor Assessment (From Part VI above or a local site assessment)		160	36	44	0		0	
TOTAL POINTS (Total of above 2 lines)		260	102	108	0		0	
1. Corridor Selected:	 Total Acres of Farm Converted by Proie 	nlands to be ect:	3. Date Of	Selection:	4. Was	A Local Site A	ssessment Use	<u>1?</u>
	,,,,,							
						YES	NO 🔟	

5. Reason For Selection:

Signature of Person Completing this Part:	DATE
	2/1/24

NOTE: Complete a form for each segment with more than one Alternate Corridor

NRCS-CPA-106 (Reverse)

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
 More than 90 percent - 15 points
 90 to 20 percent - 14 to 1 point(s)
 Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points 90 to 20 percent - 19 to 1 point(s) Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points

Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.) As large or larger - 10 points

Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s) Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
 All required services are available - 5 points
 Some required services are available - 4 to 1 point(s)
 No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures? High amount of on-farm investment - 20 points Moderate amount of on-farm investment - 19 to 1 point(s)

No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area? Substantial reduction in demand for support services if the site is converted - 25 points Some reduction in demand for support services if the site is converted - 1 to 24 point(s) No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use? Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s) Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points 3667APPENDIX J:3668AIR QUALITY ACAM MODEL

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide. This report provides a summary of the ACAM analysis.

 a. Action Location: State: Maryland County(s): Prince George's Regulatory Area(s): Washington, DC-MD-VA

b. Action Title: BEP CPF - Roadway Mitigation and Trenching to Odell Road - Alternative 1

c. Project Number/s (if applicable):

d. Projected Action Start Date: 12 / 2027

e. Action Description:

Construct roadway improvements and trenching for sanitary sewerage line to Odell Road - Alternative 1

f. Point of Contact:

Name:	Andrew Glucksman
Title:	Environmental Scientist
Organization:	Mabbett
Email:	glucksman@mabbett.com
Phone Number:	781-275-6050

2. Analysis: Total reasonably foreseeable net change in direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" (highest annual emissions) and "steady state" (no net gain/loss in emission stabilized and the action is fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

All emissions estimates were derived from various sources using the methods, algorithms, and emission factors from the most current *Air Emissions Guide for Air Force Stationary Sources*, *Air Emissions Guide for Air Force Mobile Sources*, and/or *Air Emissions Guide for Air Force Transitory Sources*. For greater details of this analysis, refer to the Detail ACAM Report.

 applicable

 X
 not applicable

Conformity Analysis Summary:

2027				
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY		
		Threshold (ton/yr)	Exceedance (Yes or No)	
Washington, DC-MD-VA				
VOC	0.028	50	No	
NOx	0.193	100	No	
СО	0.302			
SOx	0.001			
PM 10	2.700			
PM 2.5	0.007			
Pb	0.000			
NH3	0.001			

2028

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY			
		Threshold (ton/yr)	Exceedance (Yes or No)		
Washington, DC-MD-VA					
VOC	0.659	50	No		
NOx	5.044	100	No		
СО	7.142				
SOx	0.012				
PM 10	67.185				
PM 2.5	0.181				
Pb	0.000				
NH3	0.013				

The Criteria Pollutants (or their precursors) with a General Conformity threshold listed in the table above are pollutants within one or more designated nonattainment or maintenance area/s for the associated National Ambient Air Quality Standard (NAAQS). These pollutants are driving this GCR Applicability Analysis. Pollutants exceeding the GCR thresholds must be further evaluated potentially through a GCR Determination.

The pollutants without a General Conformity threshold are pollutants only within areas designated attainment for the associated NAAQS. These pollutants have an insignificance indicator for VOC, NOX, CO, SOX, PM 10, PM 2.5, and NH3 of 250 ton/yr (Prevention of Significant Deterioration major source threshold) and 25 ton/yr for Pb (GCR de minimis value). Pollutants below their insignificance indicators are at rates so insignificant that they will not cause or contribute to an exceedance of one or more NAAQSs. These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Refer to the *Level II, Air Quality Quantitative Assessment Insignificance Indicators* for further details.

None of the annual net change in estimated emissions associated with this action are above the GCR threshold values established at 40 CFR 93.153 (b); therefore, the proposed Action has an insignificant impact on Air Quality and a General Conformity Determination is not applicable.

Name, Title

Date

1. General Information

Action Location
 State: Maryland
 County(s): Prince George's
 Regulatory Area(s): Washington, DC-MD-VA

- Action Title: BEP CPF Roadway Mitigation Alternative 1
- Project Number/s (if applicable):
- Projected Action Start Date: 12 / 2027

- Action Purpose and Need:

Mitigate level of service impacts identified during EIS - Alternative 1

- Action Description:

Construct roadway improvements and trenching for sanitary sewerage line to Odell Road - Alternative 1

- Point of Contact

Name:Andrew GlucksmanTitle:Environmental ScientistOrganization:MabbettEmail:glucksman@mabbett.comPhone Number:781-275-6050

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Roadway intersection and trenching
3.	Personnel	Construction workers – intersection and trenching

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Prince George's Regulatory Area(s): Washington, DC-MD-VA

- Activity Title: Roadway intersection and trenching
- Activity Description:

Activity to construct Intersections and trenching

- Activity Start Date Start Month: 12 Start Month: 2027

- Activity End Date

Indefinite:	False
End Month:	12
End Month:	2028

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.597220
SO _x	0.011794
NO _x	5.011241
СО	6.311120

- Activity Emissions of GHG:

Pollutant	Total Emissions (TONs)
CH ₄	0.052519
N ₂ O	0.010828

- Global Scale Activity Emissions for SCGHG:

Pollutant	Total Emissions (TONs)
CH ₄	0.052519
N ₂ O	0.010828

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

- Start Month: 12 Start Quarter: 3 2027 Start Year:
- Phase Duration Number of Month: 12 Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft ²):	541256
Amount of Material to be Hauled On-Site (y	d³): 30000
Amount of Material to be Hauled Off-Site (y	d³): 30000

- Site Grading Default Settings	
Default Settings Used:	Yes
Average Day(s) worked per week:	5 (default)

Pollutant	Total Emissions (TONs)
PM 10	67.183414
PM 2.5	0.179458
Pb	0.000000
NH ₃	0.006396

Pollutant	Total Emissions (TONs)
CO ₂	1336.232585
CO ₂ e	1340.771268

Pollutant	Total Emissions (TONs)
CO_2	1336.232585
CO ₂ e	1340.771268

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	2	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]										
	VOC	SOx	NO _x	СО	PM 10	PM 2.5				
Emission Factors	0.37809	0.00542	3.36699	4.21640	0.08879	0.08169				
Graders Composite [HP: 148] [LF: 0.41]										
	VOC	SOx	NOx	CO	PM 10	PM 2.5				
Emission Factors	0.29535	0.00490	2.28401	3.40565	0.12705	0.11688				
Other Construction	Equipment Co	mposite [HP: 82	2] [LF: 0.42]							
	VOC	SOx	NOx	CO	PM 10	PM 2.5				
Emission Factors	0.25231	0.00487	2.49971	3.48392	0.13245	0.12186				
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]										
	VOC	SOx	NOx	CO	PM 10	PM 2.5				
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466				
Scrapers Composite	[HP: 423] [LF	5: 0.48]								
	VOC	SOx	NOx	CO	PM 10	PM 2.5				
Emission Factors	0.19058	0.00488	1.60937	1.52212	0.06336	0.05829				
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]										
	VOC	SOx	NO _x	CO	PM 10	PM 2.5				
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005				

- Construction Exhaust Orcennouse Gasses I onutant Emission I actors (g/np-nour) (default)									
Excavators Compos	Excavators Composite [HP: 36] [LF: 0.38]								
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02383	0.00477	587.39431	589.41010					
Graders Composite [HP: 148] [LF: 0.41]									
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02155	0.00431	531.25291	533.07604					
Other Construction	Equipment Composite	[HP: 82] [LF: 0.42]							
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02140	0.00428	527.44206	529.25211					
Rubber Tired Dozen	rs Composite [HP: 367]	[LF: 0.4]							
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02160	0.00432	532.55942	534.38703					
Scrapers Composite	e [HP: 423] [LF: 0.48]								
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02145	0.00429	528.70476	530.51914					
Tractors/Loaders/B	ackhoes Composite [H]	P: 84] [LF: 0.37]							
	CH4	N_2O	$\overline{CO_2}$	CO ₂ e					
Emission Factors	0.02148	0.00430	529.61807	531.43559					

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

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

	CH ₄	N ₂ O	CO_2	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) HP: Equipment Horsepower LF: Equipment Load Factor EF_{POL}: Emission Factor for Pollutant (g/hp-hour) 0.002205: Conversion Factor grams to pounds 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date Start Month: 1 Start Quarter: 1 Start Year: 2028

- Phase Duration Number of Month: 12 Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information	
Area of Site to be Trenched/Excavated (ft ²):	19900
Amount of Material to be Hauled On-Site (yd ³):	2000
Amount of Material to be Hauled Off-Site (yd ³):	2000

- Trenching Default Settings Default Settings Used: Yes Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]								
	VOC	SOx	NO _x	СО	PM 10	PM 2.5		
Emission Factors	0.36597	0.00542	3.33858	4.22211	0.08125	0.07475		
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]								
	VOC	SOx	NO _x	СО	PM 10	PM 2.5		
Emission Factors	0.40903	0.00542	3.44749	4.54768	0.08420	0.07746		
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]								
	VOC	SOx	NOx	СО	PM 10	PM 2.5		
Emission Factors	0.17299	0.00489	1.74942	3.49553	0.04787	0.04404		

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]							
	CH ₄	N ₂ O	CO ₂	CO ₂ e			
Emission Factors	0.02383	0.00477	587.54144	589.55773			
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]							
	CH ₄	N ₂ O	CO ₂	CO ₂ e			
Emission Factors	0.02384	0.00477	587.79831	589.81549			
Tractors/Loaders/B	ackhoes Composite [H]	P: 84] [LF: 0.37]					
	CH4	N ₂ O	CO2	CO ₂ e			
Emission Factors	0.02148	0.00430	529.56544	531.38277			

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

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

	CH4	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days) 2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) HP: Equipment Horsepower LF: Equipment Load Factor EF_{POL}: Emission Factor for Pollutant (g/hp-hour) 0.002205: Conversion Factor grams to pounds 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

 V_{POL} : Vehicle Emissions (TONs) VMT_{VE}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%) 2000: Conversion Factor pounds to tons

2.3 Paving Phase

2.3.1 Paving Phase Timeline Assumptions

- Phase Start Date Start Month: 12 Start Quarter: 3 Start Year: 2027
- Phase Duration Number of Month: 12 Number of Days: 0

2.3.2 Paving Phase Assumptions

- General Paving Information Paving Area (ft²): 541256
- Paving Default Settings Default Settings Used: Yes Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Paving Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Cement and Mortar Mixers Composite [HP: 10] [LF: 0.56]								
	VOC	SOx	NO _x	CO	PM 10	PM 2.5		
Emission Factors	0.55279	0.00855	4.19775	3.25549	0.16311	0.15007		
Pavers Composite [HP: 81] [LF: 0.42]								
	VOC	SOx	NO _x	СО	PM 10	PM 2.5		
Emission Factors	0.22921	0.00486	2.45013	3.43821	0.11941	0.10986		
Paving Equipment Composite [HP: 89] [LF: 0.36]								
	VOC	SOx	NOx	СО	PM 10	PM 2.5		
Emission Factors	0.18341	0.00488	2.01586	3.40316	0.07465	0.06867		
Rollers Composite [HP: 36] [LF: 0.38]								
	VOC	SOx	NO _x	СО	PM 10	PM 2.5		
Emission Factors	0.52865	0.00542	3.57666	4.10537	0.14602	0.13434		
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]								
	VOC	SOx	NO _x	CO	PM 10	PM 2.5		
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005		

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Cement and Mortar Mixers Composite [HP: 10] [LF: 0.56]									
	CH4	N ₂ O	CO2	CO ₂ e					
Emission Factors	0.02313	0.00463	570.32048	572.27767					
Pavers Composite [HP: 81] [LF: 0.42]									
	CH ₄	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02133	0.00427	525.80912	527.61356					
Paving Equipment O	Paving Equipment Composite [HP: 89] [LF: 0.36]								
	CH ₄	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02142	0.00428	528.06776	529.87995					
Rollers Composite [HP: 36] [LF: 0.38]									
	CH ₄	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02382	0.00476	587.12246	589.13732					
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]									
	CH4	N ₂ O	CO2	CO ₂ e					
Emission Factors	0.02148	0.00430	529.61807	531.43559					

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429
- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH4	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

2.3.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) HP: Equipment Horsepower LF: Equipment Load Factor EF_{POL}: Emission Factor for Pollutant (g/hp-hour) 0.002205: Conversion Factor grams to pounds 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft²)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

 $VOC_P = (2.62 * PA) / 43560$

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

3. Personnel

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add
- Activity Location **County:** Prince George's

Regulatory Area(s): Washington, DC-MD-VA

- Activity Title: Construction workers - intersection 1

- Activity Description:

Construction workers traveling to and from intersection 1

- Activity Start Date Start Month 12

Start	wionun.	12
Start	Year:	2027

- Activity End Date

Indefinite:	No
End Month:	12
End Year:	2028

- Activity Emissions of Criteria Pollutants:

Pollutant	Total Emissions (TONs)
VOC	0.066867
SO _x	0.000715
NO _x	0.035484
СО	0.900279

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Total Emissions (TONs)	Pollutant	Total Emissions (TONs)
CH ₄	0.004324	CO_2	107.777682
N ₂ O	0.001764	CO ₂ e	108.410861

3.2 Personnel Assumptions

- Number of Personnel

Active Duty Personnel:	0
Civilian Personnel:	0
Support Contractor Personnel:	25
Air National Guard (ANG) Personnel:	0
Reserve Personnel:	0

- Default Settings Used: No

- Average Personnel Round Trip Commute (mile): 40

- Personnel Work Schedule **Support Contractor Personnel:** 5 Days Per Week

Tonutant	I Utal Elilissiulis (1018)
PM 10	0.001606
PM 2.5	0.001420
Pb	0.000000
NH ₃	0.007693

Pollutant Total Emissions (TONs)

Pollutant	Total Emissions (TONs)
CO ₂	107.777682
CO ₂ e	108.410861

3.3 Personnel On Road Vehicle Mixture

- On Road Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	37.55	60.32	0	0.03	0.2	0	1.9
GOVs	54.49	37.73	4.67	0	0	3.11	0

3.4 Personnel Emission Factor(s)

- On Road Vehicle Criteria Pollutant Emission Factors (grams/mile)

	VOC	SOx	NO _x	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

- On Road Vehicle Greenhouse Gasses Emission Factors (grams/mile)

	CH4	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

3.5 Personnel Formula(s)

- Personnel Vehicle Miles Travel for Work Days per Year $VMT_P = NP \ * \ WD \ * \ AC$

VMT_P: Personnel Vehicle Miles Travel (miles/year) NP: Number of Personnel WD: Work Days per Year AC: Average Commute (miles)

- Total Vehicle Miles Travel per Year

 $VMT_{Total} = VMT_{AD} + VMT_{C} + VMT_{SC} + VMT_{ANG} + VMT_{AFRC}$

VMT_{Total}: Total Vehicle Miles Travel (miles)
VMT_{AD}: Active Duty Personnel Vehicle Miles Travel (miles)
VMT_C: Civilian Personnel Vehicle Miles Travel (miles)
VMT_{SC}: Support Contractor Personnel Vehicle Miles Travel (miles)
VMT_{ANG}: Air National Guard Personnel Vehicle Miles Travel (miles)
VMT_{AFRC}: Reserve Personnel Vehicle Miles Travel (miles)

- Vehicle Emissions per Year

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{Total}: Total Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Personnel On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to estimate GHG emissions and assess the theoretical Social Cost of Greenhouse Gases (SC GHG) associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide. This report provides a summary of GHG emissions and SC GHG analysis.

a. Action Location:

State: Maryland County(s): Prince George's Regulatory Area(s): Washington, DC-MD-VA

- b. Action Title: BEP CPF Roadway Mitigation Alternative 1
- c. Project Number/s (if applicable):
- d. Projected Action Start Date: 12 / 2027

e. Action Description:

Construct roadway improvements and trenching for sanitary sewerage line to Odell Road - Alternative 1

f. Point of Contact:

Name:	Andrew Glucksman
Title:	Environmental Scientist
Organization:	Mabbett
Email:	glucksman@mabbett.com
Phone Number:	781-275-6050

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action start through the expected life cycle of the action. The life cycle for "steady state" emissions (SS, net gain/loss in emission stabilized and the action is fully implemented) is assumed to be 10 years beyond the SS emissions year or 20 years beyond SS emissions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (NO2). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO2. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources.

Title 40, Chapter 1, Subchapter C, part 52, Subpart A, Section 52.21, provides the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below

the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected life cycle of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR CO2 CH4 N2O CO2e Threshold Exceedance						
2027	54	0.00213032	0.00049808	54	68,039	No
2028	1,302	0.05126572	0.01130036	1,307	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)						
YEAR CO2 CH4 N2O CO2e						
2027	58,221,463	107,271	6,992	58,335,727		
2028 58,221,463 107,271 6,992 58,335,727						

U.S. Annual GHG Emissions (mton/yr)					
YEAR	CO2	CH4	N2O	CO2e	
2027	5,136,454,179	25,626,912	1,500,708	5,163,581,798	
2028	5,136,454,179	25,626,912	1,500,708	5,163,581,798	

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (yGba.e., global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG/climate change is global. Therefore, the intensity or degree of the proposed action's GHG/climate change effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG and climate change effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)							
CO2 CH4 N2O CO2e							
2027-2040	State Total	174,664,390	321,814	20,976	175,007,180		
2027-2040	U.S. Total	15,409,362,537	76,880,735	4,502,123	15,490,745,395		
2027-2040	Action	1,310	0.051567	0.011423	1,315		
Percent of State	Totals	0.00075000%	0.00001602%	0.00005446%	0.00075121%		
Percent of U.S.	Totals	0.00000850%	0.0000007%	0.0000025%	0.00000849%		

Climate Change Assessment (as SC GHG):

On a global scale, the potential climate change effects of an action are indirectly addressed and put into context through providing the theoretical SC GHG associated with an action. The SC GHG is an administrative and theoretical tool intended to provide additional context to a GHG's potential impacts through approximating the long-term monetary damage that may result from GHG emissions affect on climate change. It is important to note that the SC GHG is a monetary quantification, in 2020 U.S. dollars, of the theoretical economic damages that could result from emitting GHGs into the atmosphere.

The SC GHG estimates are derived using the methodology and discount factors in the "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990," released by the Interagency Working Group on Social Cost of Greenhouse Gases (IWG SC GHGs) in February 2021.

The speciated IWG Annual SC GHG Emission associated with an action (or alternative) are first estimated as annual unit cost (cost per metric ton, \$/mton). Results of the annual IWG Annual SC GHG Emission Assessments are tabulated in the IWG Annual SC GHG Cost per Metric Ton Table below:

IWG Annual SC GHG Cost per Metric Ton (\$/mton [In 2020 \$])					
YEAR CO2 CH4 N2O					
2027	\$86.00	\$2,300.00	\$31,000.00		
2028	\$87.00	\$2,400.00	\$32,000.00		

IWG SC GHG Discount Factor: 2.5%

Action-related SC GHG were estimated by calendar-year for the projected action's lifecycle. Annual estimates were found by multiplying the annual emission for a given year by the corresponding IWG Annual SC GHG Emission value (see table above).

Action-Related Annual SC GHG (\$K/yr [In 2020 \$])						
YEAR	YEAR CO2 CH4 N2O GHG					
2027	\$4.65	\$0.00	\$0.02	\$4.67		
2028	\$113.31	\$0.12	\$0.36	\$113.80		

The following two tables summarize the U.S. and State's Annual SC GHG by calendar-year. The U.S. and State's Annual SC GHG are in 2020 dollars and were estimated by each year for the projected action lifecycle. Annual SC GHG estimates were found by multiplying the U.S. and State's annual five-year average GHG emissions for a given year by the corresponding IWG Annual SC GHG Cost per Metric Ton value.

State's Annual SC GHG (\$K/yr [In 2020 \$])						
YEAR CO2 CH4 N2O GHG						
2027	\$5,007,045.84	\$246,723.85	\$216,754.31	\$5,470,524.00		
2028	\$5,065,267.31	\$257,450.98	\$223,746.38	\$5,546,464.67		

U.S. Annual SC GHG (\$K/yr [In 2020 \$])					
YEAR	CO2	CH4	N2O	GHG	
2027	\$441,735,059.39	\$58,941,896.86	\$46,521,936.72	\$547,198,892.97	
2028	\$446,871,513.57	\$61,504,588.03	\$48,022,644.35	\$556,398,745.96	

Relative Comparison of SC GHG:

To provide additional real-world context to the potential climate change impact associate with an action, a Relative Comparison of SC GHG Assessment is also performed. While the SC GHG estimates capture an indirect approximation of global climate damages, the Relative Comparison of SC GHG Assessment provides a better perspective from a regional and global scale.

The Relative Comparison of SC GHG Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (yGba.e., global, national, and regional) and the SC GHG as the degree (intensity) of the proposed action's effects. The Relative Comparison Assessment provides real-world context and allows for a reasoned choice among alternatives through a relative contrast analysis which weighs each alternative's SC GHG proportionally against (or relative to) existing global, national, and regional SC GHG. The below table provides a relative comparison between an action's SC GHG vs. state and U.S. projected SC GHG for the same time period:

Total SC-GHG (\$K [In 2020 \$])						
		CO2	CH4	N2O	GHG	
2027-2040	State Total	\$15,195,801.92	\$772,352.93	\$664,247.07	\$16,632,401.92	
2027-2040	U.S. Total	\$1,340,614,540.72	\$184,513,764.10	\$142,567,225.42	\$1,667,695,530.24	
2027-2040	Action	\$113.87	\$0.12	\$0.37	\$114.36	
Percent of Stat	te Totals	0.00074934%	0.00001597%	0.00005496%	0.00068755%	
Percent of U.S	. Totals	0.00000849%	0.0000007%	0.0000026%	0.00000686%	

From a global context, the action alternative's total SC GHG percentage of total global SC GHG for the same time period is: 0.00000092%.*

* Global value based on the U.S. emits 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

Name Title	Date
Andrew Glucksman, Environmental Scientist Dec	05 2023

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide. This report provides a summary of the ACAM analysis.

a. Action Location: State: Maryland County(s): Prince George's Regulatory Area(s): Washington, DC-MD-VA

b. Action Title: BEP CPF - Roadway Mitigation - Alternative 2

c. Project Number/s (if applicable):

d. Projected Action Start Date: 12/2027

e. Action Description:

Construct roadway improvements and sanitary sewerage trenching to Powder Mill Road - Alternative 2

f. Point of Contact:

Name:	Andrew Glucksman
Title:	Environmental Scientist
Organization:	Mabbett
Email:	glucksman@mabbett.com
Phone Number:	781-275-6050

2. Analysis: Total reasonably foreseeable net change in direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" (highest annual emissions) and "steady state" (no net gain/loss in emission stabilized and the action is fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

All emissions estimates were derived from various sources using the methods, algorithms, and emission factors from the most current *Air Emissions Guide for Air Force Stationary Sources*, *Air Emissions Guide for Air Force Mobile Sources*, and/or *Air Emissions Guide for Air Force Transitory Sources*. For greater details of this analysis, refer to the Detail ACAM Report.

applicableXnot applicable

Conformity Analysis Summary:

2027					
Pollutant	Action Emissions (ton/yr)	GENERAL C	ONFORMITY		
		Threshold (ton/yr)	Exceedance (Yes or No)		
Washington, DC-MD-VA					
VOC	0.028	50	No		
NOx	0.193	100	No		
СО	0.302				
SOx	0.001				
PM 10	2.700				
PM 2.5	0.007				
Pb	0.000				
NH3	0.001				

2028

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Washington, DC-MD-VA			
VOC	0.660	50	No
NOx	5.063	100	No
CO	7.155		
SOx	0.012		
PM 10	69.143		
PM 2.5	0.181		
Pb	0.000		
NH3	0.014		

The Criteria Pollutants (or their precursors) with a General Conformity threshold listed in the table above are pollutants within one or more designated nonattainment or maintenance area/s for the associated National Ambient Air Quality Standard (NAAQS). These pollutants are driving this GCR Applicability Analysis. Pollutants exceeding the GCR thresholds must be further evaluated potentially through a GCR Determination.

The pollutants without a General Conformity threshold are pollutants only within areas designated attainment for the associated NAAQS. These pollutants have an insignificance indicator for VOC, NOx, CO, SOx, PM 10, PM 2.5, and NH3 of 250 ton/yr (Prevention of Significant Deterioration major source threshold) and 25 ton/yr for Pb (GCR de minimis value). Pollutants below their insignificance indicators are at rates so insignificant that they will not cause or contribute to an exceedance of one or more NAAQSs. These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Refer to the *Level II, Air Quality Quantitative Assessment Insignificance Indicators* for further details.

None of the annual net change in estimated emissions associated with this action are above the GCR threshold values established at 40 CFR 93.153 (b); therefore, the proposed Action has an insignificant impact on Air Quality and a General Conformity Determination is not applicable.

Name, Title

Date

1. General Information

Action Location
 State: Maryland
 County(s): Prince George's
 Regulatory Area(s): Washington, DC-MD-VA

- Action Title: BEP CPF Roadway Mitigation Alternative 2
- Project Number/s (if applicable):
- Projected Action Start Date: 12 / 2027

- Action Purpose and Need: Mitigate level of service impacts identified during EIS

- Action Description:

Construct roadway improvements and santiary sewerage trenching - Alternative 2

- Point of Contact

Name:Andrew GlucksmanTitle:Environmental ScientistOrganization:MabbettEmail:glucksman@mabbett.comPhone Number:781-275-6050

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Roadway intersection 2
3.	Personnel	Construction workers - intersection 1

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Prince George's Regulatory Area(s): Washington, DC-MD-VA

- Activity Title: Roadway intersection and trenching to Powder Mill Road – Alternative 2

- Activity Description:

Activity to construct Intersection improvements and sanitary sewerage extension to Powder Mill Road - Alt 2

- Activity Start Date Start Month: 12 Start Month: 2027 - Activity End Date Indefinite: False End Month: 12 End Month: 2028

- Activity Emissions:

Pollutant	Total Emissions (TONs)	
VOC	0.598065	
SO _x	0.011829	
NO _x	5.030267	
CO	6.323956	

- Activity Emissions of GHG:

Pollutant	Total Emissions (TONs)
CH ₄	0.052781
N ₂ O	0.010857

- Global Scale Activity Emissions for SCGHG:

Pollutant	Total Emissions (TONs)
CH ₄	0.052781
N ₂ O	0.010857

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date	
Start Month:	12
Start Quarter:	3
Start Year:	2027

- Phase Duration Number of Month: 12 Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information	
Area of Site to be Graded (ft ²):	541256
Amount of Material to be Hauled On-Site (yd ³):	30000
Amount of Material to be Hauled Off-Site (yd ³):	30000

- Site Grading Default Settings	
Default Settings Used:	Yes
Average Day(s) worked per week:	5 (default)

Pollutant	Total Emissions (TONs)	
PM 10	69.141435	
PM 2.5	0.179699	
Pb	0.000000	
NH ₃	0.006678	

Pollutant	Total Emissions (TONs)
CO ₂	1346.613147
CO ₂ e	1351.167195

Pollutant	Total Emissions (TONs)
CO_2	1346.613147
CO ₂ e	1351.167195

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	8
Scrapers Composite	2	8
Tractors/Loaders/Backhoes Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]											
	VOC	SOx	NO _x	СО	PM 10	PM 2.5					
Emission Factors	0.37809	0.00542	3.36699	4.21640	0.08879	0.08169					
Graders Composite [HP: 148] [LF: 0.41]											
	VOC	SOx	NOx	СО	PM 10	PM 2.5					
Emission Factors	0.29535	0.00490	2.28401	3.40565	0.12705	0.11688					
Other Construction Equipment Composite [HP: 82] [LF: 0.42]											
	VOC	SOx	NOx	СО	PM 10	PM 2.5					
Emission Factors	0.25231	0.00487	2.49971	3.48392	0.13245	0.12186					
Rubber Tired Dozen	rs Composite [H	IP: 367] [LF: 0	.4]								
	VOC	SOx	NOx	СО	PM 10	PM 2.5					
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466					
Scrapers Composite	e [HP: 423] [LF	5: 0.48]									
	VOC	SOx	NOx	СО	PM 10	PM 2.5					
Emission Factors	0.19058	0.00488	1.60937	1.52212	0.06336	0.05829					
Tractors/Loaders/B	Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]										
	VOC	SOx	NO _x	CO	PM 10	PM 2.5					
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005					

- Constituction Exita	iust Of Cennouse Gasses	s i onutant Emission i a	(ucia	iuit)					
Excavators Composite [HP: 36] [LF: 0.38]									
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02383	0.00477	587.39431	589.41010					
Graders Composite [HP: 148] [LF: 0.41]									
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02155	0.00431	531.25291	533.07604					
Other Construction Equipment Composite [HP: 82] [LF: 0.42]									
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02140	0.00428	527.44206	529.25211					
Rubber Tired Dozen	rs Composite [HP: 367]	[LF: 0.4]							
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02160	0.00432	532.55942	534.38703					
Scrapers Composite	e [HP: 423] [LF: 0.48]								
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02145	0.00429	528.70476	530.51914					
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]									
	CH4	N ₂ O	CO ₂	CO ₂ e					
Emission Factors	0.02148	0.00430	529.61807	531.43559					

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

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

	CH ₄	N ₂ O	CO_2	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) HP: Equipment Horsepower LF: Equipment Load Factor EF_{POL}: Emission Factor for Pollutant (g/hp-hour) 0.002205: Conversion Factor grams to pounds 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date Start Month: 1 Start Quarter: 1 Start Year: 2028

- Phase Duration Number of Month: 12 Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information	
Area of Site to be Trenched/Excavated (ft ²):	36300
Amount of Material to be Hauled On-Site (yd ³):	6000
Amount of Material to be Hauled Off-Site (yd ³):	6000

- Trenching Default Settings Default Settings Used: Yes Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd ³):	20 (default)
Average Hauling Truck Round Trip Commute (mile):	20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC		
POVs	50.00	50.00	0	0	0	0	0		

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]							
	VOC	SOx	NO _x	СО	PM 10	PM 2.5	
Emission Factors	0.36597	0.00542	3.33858	4.22211	0.08125	0.07475	
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]							
	VOC	SOx	NOx	СО	PM 10	PM 2.5	
Emission Factors	0.40903	0.00542	3.44749	4.54768	0.08420	0.07746	
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]							
	VOC	SOx	NOx	СО	PM 10	PM 2.5	
Emission Factors	0.17299	0.00489	1.74942	3.49553	0.04787	0.04404	

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]							
	CH ₄	N ₂ O	CO ₂	CO ₂ e			
Emission Factors	0.02383	0.00477	587.54144	589.55773			
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]							
	CH ₄	N ₂ O	CO ₂	CO ₂ e			
Emission Factors	0.02384	0.00477	587.79831	589.81549			
Tractors/Loaders/B	ackhoes Composite [H]	P: 84] [LF: 0.37]					
	CH4	N ₂ O	CO ₂	CO ₂ e			
Emission Factors	0.02148	0.00430	529.56544	531.38277			

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

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

	CH4	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL}* 0.002205) / 2000

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) HP: Equipment Horsepower LF: Equipment Load Factor EF_{POL}: Emission Factor for Pollutant (g/hp-hour) 0.002205: Conversion Factor grams to pounds 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³) HC: Average Hauling Truck Capacity (yd³) (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Paving Phase

2.3.1 Paving Phase Timeline Assumptions

- Phase Start Date Start Month: 12 Start Ouarter: 3

Start Quarter:3Start Year:2027

- Phase Duration Number of Month: 12 Number of Days: 0

2.3.2 Paving Phase Assumptions

- General Paving Information Paving Area (ft²): 541256
- Paving Default Settings Default Settings Used: Yes Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Paving Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Cement and Mortar Mixers Composite [HP: 10] [LF: 0.56]									
	VOC	SOx	NO _x	СО	PM 10	PM 2.5			
Emission Factors	0.55279	0.00855	4.19775	3.25549	0.16311	0.15007			
Pavers Composite []	Pavers Composite [HP: 81] [LF: 0.42]								
	VOC	SOx	NO _x	CO	PM 10	PM 2.5			
Emission Factors	0.22921	0.00486	2.45013	3.43821	0.11941	0.10986			
Paving Equipment Composite [HP: 89] [LF: 0.36]									
	VOC	SOx	NO _x	СО	PM 10	PM 2.5			
Emission Factors	0.18341	0.00488	2.01586	3.40316	0.07465	0.06867			
Rollers Composite [HP: 36] [LF: 0	.38]							
	VOC	SOx	NO _x	CO	PM 10	PM 2.5			
Emission Factors	0.52865	0.00542	3.57666	4.10537	0.14602	0.13434			
Tractors/Loaders/Ba	ackhoes Compo	osite [HP: 84] []	LF: 0.37]						
	VOC	SOx	NO _x	CO	PM 10	PM 2.5			
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005			

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Cement and Mortar Mixers Composite [HP: 10] [LF: 0.56]								
	CH4	N ₂ O	CO ₂	CO ₂ e				
Emission Factors	0.02313	0.00463	570.32048	572.27767				
Pavers Composite []	HP: 81] [LF: 0.42]							
	CH ₄	N ₂ O	CO ₂	CO ₂ e				
Emission Factors	0.02133	0.00427	525.80912	527.61356				
Paving Equipment Composite [HP: 89] [LF: 0.36]								
	CH ₄	N ₂ O	CO ₂	CO ₂ e				
Emission Factors	0.02142	0.00428	528.06776	529.87995				
Rollers Composite [HP: 36] [LF: 0.38]							
	CH ₄	N ₂ O	CO ₂	CO ₂ e				
Emission Factors	0.02382	0.00476	587.12246	589.13732				
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]								
	CH4	N ₂ O	CO2	CO ₂ e				
Emission Factors	0.02148	0.00430	529.61807	531.43559				

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

	VOC	SOx	NOx	СО	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

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

	CH4	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

2.3.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs) NE: Number of Equipment WD: Number of Total Work Days (days) H: Hours Worked per Day (hours) HP: Equipment Horsepower LF: Equipment Load Factor EF_{POL}: Emission Factor for Pollutant (g/hp-hour) 0.002205: Conversion Factor grams to pounds 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft²)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

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

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

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

 $VOC_P = (2.62 * PA) / 43560$

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

3. Personnel

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add
- Activity Location County: Prince George's Regulatory Area(s): Washington, DC-MD-VA
- Activity Title: Construction workers intersection 1

- Activity Description:

Construction workers traveling to and from intersection 1

- Activity Start Date Start Month: 12 Start Year: 2027
- Activity End Date

entity End Dave	~
Indefinite:	No
End Month:	12
End Year:	2028

- Activity Emissions of Criteria Pollutants:

Pollutant	Total Emissions (TONs)
VOC	0.066867
SO _x	0.000715
NO _x	0.035484
СО	0.900279

Pollutant	Total Emissions (TONs)
PM 10	0.001606
PM 2.5	0.001420
Pb	0.000000
NH ₃	0.007693

Total Emissions (TONs)

107.777682 108.410861

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Total Emissions (TONs)	Pollutant
CH ₄	0.004324	CO_2
N ₂ O	0.001764	CO ₂ e

3.2 Personnel Assumptions

- Number of Personnel Support Contractor Personnel:
- Default Settings Used: No
- Average Personnel Round Trip Commute (mile): 40

- Personnel Work Schedule

Support Contractor Personnel: 5 Days Per Week

3.3 Personnel On Road Vehicle Mixture

- On Road Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	37.55	60.32	0	0.03	0.2	0	1.9
GOVs	54.49	37.73	4.67	0	0	3.11	0

25

3.4 Personnel Emission Factor(s)

- On Road Vehicle Criteria Pollutant Emission Factors (grams/mile)

	VOC	SOx	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.16534	0.00193	0.07529	2.55532	0.00386	0.00341	0.02321
LDGT	0.17696	0.00253	0.12157	2.83524	0.00546	0.00483	0.02488
HDGV	0.74131	0.00610	0.67352	11.59213	0.02168	0.01918	0.05076
LDDV	0.06234	0.00095	0.05770	2.45415	0.00241	0.00221	0.00821
LDDT	0.06379	0.00117	0.08997	1.95115	0.00324	0.00298	0.00856
HDDV	0.09586	0.00395	2.15720	1.45529	0.02963	0.02726	0.03198
MC	2.43964	0.00259	0.65615	11.82749	0.02222	0.01965	0.05429

- On Road Vehicle Greenhouse Gasses Emission Factors (grams/mile)

	CH4	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01101	0.00440	289.85857	291.44403
LDGT	0.01245	0.00658	381.35125	383.62022
HDGV	0.06054	0.02743	918.14108	927.81731
LDDV	0.03696	0.00069	284.29375	285.42131
LDDT	0.03367	0.00102	349.06311	350.20819
HDDV	0.02967	0.00336	1176.93439	1178.67655
MC	0.11591	0.00306	390.09412	393.90298

3.5 Personnel Formula(s)

- Personnel Vehicle Miles Travel for Work Days per Year $VMT_P = NP \ * \ WD \ * \ AC$

VMT_P: Personnel Vehicle Miles Travel (miles/year) NP: Number of Personnel WD: Work Days per Year AC: Average Commute (miles)

- Total Vehicle Miles Travel per Year

 $VMT_{Total} = VMT_{AD} + VMT_{C} + VMT_{SC} + VMT_{ANG} + VMT_{AFRC}$

VMT_{Total}: Total Vehicle Miles Travel (miles)
VMT_{AD}: Active Duty Personnel Vehicle Miles Travel (miles)
VMT_c: Civilian Personnel Vehicle Miles Travel (miles)
VMT_{SC}: Support Contractor Personnel Vehicle Miles Travel (miles)
VMT_{ANG}: Air National Guard Personnel Vehicle Miles Travel (miles)
VMT_{AFRC}: Reserve Personnel Vehicle Miles Travel (miles)

- Vehicle Emissions per Year

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

V_{POL}: Vehicle Emissions (TONs)
VMT_{Total}: Total Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Personnel On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to estimate GHG emissions and assess the theoretical Social Cost of Greenhouse Gases (SC GHG) associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide. This report provides a summary of GHG emissions and SC GHG analysis.

a. Action Location: State: Maryland County(s): Prince George's Regulatory Area(s): Washington, DC-MD-VA

b. Action Title: BEP CPF - Roadway Mitigation and Trenching for Sanitary to Powder Mill Road - Alternative 2

- c. Project Number/s (if applicable):
- d. Projected Action Start Date: 12 / 2027

e. Action Description:

Construct roadway improvements and sanitary sewerage trenching to Powder Mill Road/Edmonston Road - Alternative 2

f. Point of Contact:

Name:	Andrew Glucksman
Title:	Environmental Scientist
Organization:	Mabbett
Email:	glucksman@mabbett.com
Phone Number:	781-275-6050

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action start through the expected life cycle of the action. The life cycle for actions with "steady state" emissions (SS, net gain/loss in emission stabilized and the action is fully implemented) is assumed to be 10 years beyond the SS emissions year or 20 years beyond SS emissions year.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO2), methane (CH4), and nitrous oxide (NO2). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO2 equivalents (CO2e). The CO2e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO2. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources.

Title 40, Chapter 1, Subchapter C, part 52, Subpart A, Section 52.21, provides the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO2e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de

minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO2e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO2e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected life cycle of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2027	54	0.00213032	0.00049808	54	68,039	No
2028	1,312	0.05150312	0.01132724	1,317	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. https://statesummaries.ncics.org/downloads/).

State's Annual GHG Emissions (mton/yr)					
YEAR	CO2	CH4	N2O	CO2e	
2027	58,221,463	107,271	6,992	58,335,727	
2028	58,221,463	107,271	6,992	58,335,727	

U.S. Annual GHG Emissions (mton/yr)					
YEAR	CO2	CH4	N2O	CO2e	
2027	5,136,454,179	25,626,912	1,500,708	5,163,581,798	
2028	5,136,454,179	25,626,912	1,500,708	5,163,581,798	

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (yGba.e., global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG/climate change is global. Therefore, the intensity or degree of the proposed action's GHG/climate change effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG and climate change effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)							
CO2 CH4 N2O CO2e							
2027-2040	State Total	174,664,390	321,814	20,976	175,007,180		
2027-2040	U.S. Total	15,409,362,537	76,880,735	4,502,123	15,490,745,395		
2027-2040	Action	1,319	0.051805	0.01145	1,324		
Percent of State Totals		0.00075539%	0.00001610%	0.00005459%	0.00075660%		
Percent of U.S.	Totals	0.00000856%	0.0000007%	0.0000025%	0.00000855%		

Climate Change Assessment (as SC GHG):

On a global scale, the potential climate change effects of an action are indirectly addressed and put into context through providing the theoretical SC GHG associated with an action. The SC GHG is an administrative and theoretical tool intended to provide additional context to a GHG's potential impacts through approximating the long-term monetary damage that may result from GHG emissions affect on climate change. It is important to note that the SC GHG is a monetary quantification, in 2020 U.S. dollars, of the theoretical economic damages that could result from emitting GHGs into the atmosphere.

The SC GHG estimates are derived using the methodology and discount factors in the "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990," released by the Interagency Working Group on Social Cost of Greenhouse Gases (IWG SC GHGs) in February 2021.

The speciated IWG Annual SC GHG Emission associated with an action (or alternative) are first estimated as annual unit cost (cost per metric ton, \$/mton). Results of the annual IWG Annual SC GHG Emission Assessments are tabulated in the IWG Annual SC GHG Cost per Metric Ton Table below:

IWG Annual SC GHG Cost per Metric Ton (\$/mton [In 2020 \$])					
YEAR	CO2	CH4	N2O		
2027	\$86.00	\$2,300.00	\$31,000.00		
2028	\$87.00	\$2,400.00	\$32,000.00		

IWG SC GHG Discount Factor: 2.5%

Action-related SC GHG were estimated by calendar-year for the projected action's lifecycle. Annual estimates were found by multiplying the annual emission for a given year by the corresponding IWG Annual SC GHG Emission value (see table above).

Action-Related Annual SC GHG (\$K/yr [In 2020 \$])				
YEAR	CO2	CH4	N2O	GHG
2027	\$4.65	\$0.00	\$0.02	\$4.67
2028	\$114.13	\$0.12	\$0.36	\$114.62

The following two tables summarize the U.S. and State's Annual SC GHG by calendar-year. The U.S. and State's Annual SC GHG are in 2020 dollars and were estimated by each year for the projected action lifecycle. Annual SC GHG estimates were found by multiplying the U.S. and State's annual five-year average GHG emissions for a given year by the corresponding IWG Annual SC GHG Cost per Metric Ton value.

State's Annual SC GHG (\$K/yr [In 2020 \$])				
YEAR	CO2	CH4	N2O	GHG
2027	\$5,007,045.84	\$246,723.85	\$216,754.31	\$5,470,524.00
2028	\$5,065,267.31	\$257,450.98	\$223,746.38	\$5,546,464.67

U.S. Annual SC GHG (\$K/yr [In 2020 \$])				
YEAR	CO2	CH4	N2O	GHG
2027	\$441,735,059.39	\$58,941,896.86	\$46,521,936.72	\$547,198,892.97
2028	\$446,871,513.57	\$61,504,588.03	\$48,022,644.35	\$556,398,745.96

Relative Comparison of SC GHG:

To provide additional real-world context to the potential climate change impact associate with an action, a Relative Comparison of SC GHG Assessment is also performed. While the SC GHG estimates capture an indirect approximation of global climate damages, the Relative Comparison of SC GHG Assessment provides a better perspective from a regional and global scale.

The Relative Comparison of SC GHG Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (yGba.e., global, national, and regional) and the SC GHG as the degree (intensity) of the proposed action's effects. The Relative Comparison Assessment provides real-world context and allows for a reasoned choice among alternatives through a relative contrast analysis which weighs each alternative's SC GHG proportionally against (or relative to) existing global, national, and regional SC GHG. The below table provides a relative comparison between an action's SC GHG vs. state and U.S. projected SC GHG for the same time period:

Total SC-GHG (\$K [In 2020 \$])					
		CO2	CH4	N2O	GHG
2027-2040	State Total	\$15,195,801.92	\$772,352.93	\$664,247.07	\$16,632,401.92
2027-2040	U.S. Total	\$1,340,614,540.72	\$184,513,764.10	\$142,567,225.42	\$1,667,695,530.24
2027-2040	Action	\$114.69	\$0.12	\$0.37	\$115.18
Percent of State Totals		0.00075473%	0.00001605%	0.00005509%	0.00069249%
Percent of U.S. Totals		0.00000855%	0.0000007%	0.0000026%	0.00000691%

From a global context, the action alternative's total SC GHG percentage of total global SC GHG for the same time period is: 0.00000093%.*

* Global value based on the U.S. emits 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, https://www.c2es.org/content/international-emissions).

Name, Title

Date

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3669	APPENDIX K:
3670	COMMENT RESPONSE MATRIX
3671	[PLACEHOLDER]

3672	APPENDIX L:
3673	COORDINATION WITH FEDERAL, STATE, AND LOCAL
3674	JURISDICTIONS

Coordination with Federal, State, and Local Jurisdictions:

- Friends of Agricultural Research Beltsville July 2017
- U.S. Representative Hoyer August 2017
- Greenbelt City Manager and Staff October 2017
- Prince George's County Councilmember District 1 October 2017
- Prince George's County Council November 2017
- Maryland State Senator Rosapepe January 2018
- Prince George's County Executive's Office January 2018
- Greenbelt City Council Work Session February 2018
- Beltsville Agricultural Research Center (BARC) Employee Group August 2018
- Press Release regarding BARC Site Evaluation April 2019
- Prince George's County Economic Development Corporation April 2019
- Greenbelt Community Development Corporation June 2019
- National Capital Planning Commission June 2019
- Maryland National Capital Park and Planning Commission Staff Update June 2019
- Maryland Historic Trust August 2019
- Vansville Heights Citizens Association Townhall hosted by Prince George's County Councilmember (District 1) October 2019
- Greater Beltsville Business Association October 2019
- Transportation Impact Study Scoping Agreement November 2019:
 - City of Greenbelt
 - o Maryland National Capital Park and Planning Commission
 - o Maryland State Highway Administration
 - National Park Service
 - U.S. Department of Agriculture
 - o National Capital Planning Commission
- Press Release regarding Environmental Impact Statement (EIS) Notice of Intent November 2019
- EIS Public Scoping Meeting December 2019
- Transportation Impact Study completed June 2020
- Press Release and Stakeholder Notification regarding Draft EIS November 2020
- National Capital Planning Commission Public Meeting February 2021
- Maryland National Capital Park and Planning Commission Public Meeting March 2021
- National Capital Planning Commission Public Meeting April 2021
- Maryland State Historic Preservation Agreement completed May 2021
- Press Release and Stakeholder Notification regarding Final EIS June 2021
- National Capital Planning Commission July 2021
- National Capital Planning Commission Staff Update October 2021
- Press Release and Stakeholder Notification regarding Treasury's Record of Decision October 2021
- <u>Governor of Maryland Project Support Press Release</u> April 2022
- <u>Maryland Congressional Project Support Press Release</u> May 2022
- Prince George's County Project Support Press Release 2022

- Vansville Heights Citizens Association May 2022
- Maryland State Senator Rosapepe May 2022
- Maryland National Capital Park and Planning Commission Public Meeting February 2023
- U.S. Representative Ivey Staff February 2023
- National Capital Planning Commission Public Meeting March 2023
- Public Stakeholder Quarterly Project Updates January 2022, April 2022, July 2022, October 2022, January 2023, April 2023
- National Capital Planning Commission Public Meeting April 2023
- Prince George's County Executive April 2023
- Councilwoman Watson / Save BARC April 2023
- Prince George's County Council June 2023
- Anacostia Watershed Steering Committee June 2023
- North Creek Homeowner's Association July 2023
3675APPENDIX M:3676PUBLIC ENGAGEMENT

Flyers (in Spanish and English) were distributed to the following individuals and organizations:

- Beltsville Library
- Beltsville Academy
- Vansville Elementary School
- El Sabor Latino
- Indian Creek HOA
- Vansville Heights, North Creek HOA
- Select Odell Road, Edmonston Road, and Rosedale Park residents
- Vansville Community Center
- Councilman Dernoga (who posted to social media)
- Women's Club of Beltsville
- First Baptist Church of Beltsville
- Lighthouse Ministries International, Inc.
- Evangelical Lutheran Church of the Abiding Presence
- Power House Baptist Church
- First Baptist Church of Beltsville
- Crossover Christian Church
- Temple of Praise International Church
- Dunamis Worship Center International
- Lifehouse Church
- Calvary Alliance Church of DC
- Holiness Church of God of Bethlehem
- NJM Family Worship
- Agape Word Center Church International
- MCJ El Rey
- Hope Christian Church
- Favorlife Church
- Emmanuel United Methodist Church

Bureau of Engraving and Printing (BEP) Traffic and Utilities Mitigation

Local Community Meeting

January 17, 2024, Beltsville Library, 4319 Sellman Rd., Beltsville, MD 20705, 5:30 - 7:30 p.m.

In accordance with Executive Order 14096, the BEP welcomes your attendance to a local community information meeting for traffic and utilities mitigation associated with the construction of a replacement currency production facility (CPF) at the Beltsville Agricultural Research Center (BARC).

The construction and operation of the replacement CPF was addressed in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF in the National Capital Region, with the signed Record of Decision, dated October 8, 2021 (https://www.nab.usace.army.mil/BEP/). A supplemental Environmental Assessment (EA) is currently being drafted to study the impacts associated with the traffic and utilities mitigation being implemented with the CPF. The draft EA is expected to be available for public comment in Spring 2024. The local community information meeting will provide an overview of the proposed work associated with traffic and utilities mitigation. The proposed work also includes improvements required to accommodate the replacement CPF that are outside of the limits of disturbance identified in the EIS.

The local community information meeting will be held in an open house format on Wednesday, January 17, 2024, at the Beltsville Library located at 4319 Sellman Road, Beltsville, MD 20705, from 5:30 – 7:30 p.m. (ET). Display materials will be organized as topic-specific stations in English and Spanish and BEP representatives will be available to discuss the project. Should you have any further questions or require a sign language interpreter, please contact (410) 962-9500 or e-mail <u>BEP-Updates@usace.army.mil</u>. Should there be inclement weather on this date, the meeting will be postponed to Wednesday, January 24, 2024, at the Beltsville Library located at 4319 Sellman Road, Beltsville, MD 20705, from 5:30 – 7:30 p.m. (ET). Please see the project website (https://www.nab.usace.army.mil/BEP/) in the event of inclement weather to determine if the meeting will be postponed.

Use of library meeting space does not constitute endorsement of program/meeting or its content by the Prince George's County Memorial Library System.

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos

Reunión de la Comunidad Local

17 de enero de 2024, Biblioteca de Beltsville, 4319 Sellman Rd., Beltsville, MD 20705, 5:30 – 7:30 p.m.

De acuerdo con la Orden Ejecutiva 14096, BEP los invita a asistir a una reunión de información para la comunidad local, acerca de la mitigación del tráfico y los servicios públicos asociada con la construcción de una instalación de producción de moneda de reemplazo (CPF) que será ubicada en el Centro de Investigación Agrícola de Beltsville (BARC).

La construcción y operación de la CPF de reemplazo fue abordada en la versión final de la Declaración de Impacto Ambiental (EIS) para la Construcción y Operación de una CPF en la Región de la Capital Nacional, con Acta de Decisión firmada, de fecha 8 de octubre de 2021 (https:// www.nab.usace.army.mil/BEP/). Actualmente se está redactando una Evaluación Ambiental (EA) complementaria para estudiar los impactos asociados con la mitigación del tráfico y los servicios públicos que se está llevando a cabo con el CPF. Se espera que el borrador de EA esté disponible para comentarios públicos en la primavera de 2024. La reunión de información para la comunidad local proporcionará una descripción general del trabajo propuesto asociado con la mitigación del tráfico y los servicios públicos. El trabajo propuesto también incluye mejoras necesarias para acomodar el CPF de reemplazo, que están fuera de los límites de perturbación identificados en la EIS.

La reunión de información para la comunidad local se llevará a cabo en formato de jornada de puertas abiertas, el miércoles 17 de enero de 2024 en la Biblioteca de Beltsville ubicada en 4319 Sellman Road, Beltsville, MD 20705, de 5:30 a 7:30 p.m. (ET). Los materiales de exhibición se organizarán como estaciones temáticas específicas en inglés y español, y los representantes de BEP estarán disponibles para discutir el proyecto. Si tiene más preguntas o necesita un intérprete de lenguaje de señas, comuníquese con (410) 962-9500 o envíe un correo electrónico a <u>BEP-Updates@usace.army.mil</u>. Si hay mal tiempo en esta fecha, la reunión se pospondrá para el miércoles 24 de enero de 2024 en la Biblioteca de Beltsville ubicada en 4319 Sellman Road, Beltsville, MD 20705, de 5:30 p.m. (ET). Consulte el sitio web del proyecto (https://www.nab.usace.army.mil/BEP/) en caso de mal tiempo para determinar si la reunión se pospondrá.

El uso del espacio para reuniones de la biblioteca no constituye la aprobación del programa/reunión, ni de su contenido, por parte del Sistema de Bibliotecas Conmemorativas del Condado de Prince George.

*Todos los acrónimos son basados en las siglas en inglés.

Bureau of Engraving and Printing (BEP) Traffic and Utilities Mitigation

Local Community Meeting

January 9, 2024, Beltsville Library, 4319 Sellman Rd., Beltsville, MD 20705, 5:30 – 7:30 p.m.

In accordance with Executive Order 14096, the BEP welcomes your attendance to a local community information meeting for traffic and utilities mitigation associated with the construction of a replacement currency production facility (CPF) at the Beltsville Agricultural Research Center (BARC).

The construction and operation of the replacement CPF was addressed in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF in the National Capital Region, with the signed Record of Decision, dated October 8, 2021 (https://www.nab.usace.army.mil/BEP/). A supplemental Environmental Assessment (EA) is currently being drafted to study the impacts associated with the traffic and utilities mitigation being implemented with the CPF. The draft EA is expected to be available for public comment in Spring 2024. The local community information meeting will provide an overview of the proposed work associated with traffic and utilities mitigation. The proposed work also includes improvements required to accommodate the replacement CPF that are outside of the limits of disturbance identified in the EIS.

The local community information meeting will be held in an open house format on Tuesday, January 9, 2024, at the Beltsville Library located at 4319 Sellman Road, Beltsville, MD 20705, from 5:30 – 7:30 p.m. (ET). Display materials will be organized as topic-specific stations in English and Spanish and BEP representatives will be available to discuss the project. Should you have any further questions or require a sign language interpreter, please contact (410) 962-9500 or e-mail <u>BEP-Updates@usace.army.mil</u>.

Use of library meeting space does not constitute endorsement of program/meeting or its content by the Prince George's County Memorial Library System.

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos

Reunión de la Comunidad Local

9 de enero de 2024, Librería Beltsville, 4319 Sellman Rd., Beltsville, MD 20705, 5:30 – 7:30 p.m.

De acuerdo con la Orden Ejecutiva 14096, BEP los invita a asistir a una reunión de información para la comunidad local, acerca de la mitigación del tráfico y los servicios públicos asociada con la construcción de una instalación de producción de moneda de reemplazo (CPF) que será ubicada en el Centro de Investigación Agrícola de Beltsville (BARC).

La construcción y operación de la CPF de reemplazo fue abordada en la versión final de la Declaración de Impacto Ambiental (EIS) para la Construcción y Operación de una CPF en la Región de la Capital Nacional, con Acta de Decisión firmada, de fecha 8 de octubre de 2021 (https:// www.nab.usace.army.mil/BEP/). Actualmente se está redactando una Evaluación Ambiental (EA) complementaria para estudiar los impactos asociados con la mitigación del tráfico y los servicios públicos que se está llevando a cabo con el CPF. Se espera que el borrador de EA esté disponible para comentarios públicos en la primavera de 2024. La reunión de información para la comunidad local proporcionará una descripción general del trabajo propuesto asociado con la mitigación del tráfico y los servicios públicos. El trabajo propuesto también incluye mejoras necesarias para acomodar el CPF de reemplazo, que están fuera de los límites de perturbación identificados en la EIS.

La reunión de información para la comunidad local se llevará a cabo en formato de jornada de puertas abiertas, el martes 9 de enero de 2024 en la Biblioteca de Beltsville ubicada en 4319 Sellman Road, Beltsville, MD 20705, de 5:30 a 7:30 p.m. (ET). Los materiales de exhibición se organizarán como estaciones temáticas específicas en inglés y español, y los representantes de BEP estarán disponibles para discutir el proyecto. Si tiene más preguntas o necesita un intérprete de lenguaje de señas, comuníquese con (410) 962-9500 o envíe un correo electrónico a <u>BEP-Updates@usace.army.mil</u>.

El uso del espacio para reuniones de la biblioteca no constituye la aprobación del programa/reunión, ni de su contenido, por parte del Sistema de Bibliotecas Conmemorativas del Condado de Prince George.

*Todos los acrónimos son basados en las siglas en inglés.

Project Overview

Bureau of Engraving and Printing Traffic and Utilities Mitigation Projects

The Bureau of Engraving and Printing (BEP) intends to design and construct an approximately <u>1 million-sq ft currency production facility</u> (<u>CPF</u>) at Beltsville Agricultural Research Center (BARC) to replace the existing Washington, DC facility, which has aging and inefficient infrastructure.

The construction and operation of the replacement CPF was addressed in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF in the National Capital Region, and the signed Record of Decision was dated 8 October 2021.

A supplemental Environmental Assessment is in-progress to address traffic, utility, and construction-related requirements expected to arise from the construction and operation of the replacement CPF.

The Proposed Action for the EA includes:

- various improvements to the roadways and seven (7) intersections identified in the EIS as requiring mitigation in order to minimize delays and reduce queue lengths;
- utility infrastructure improvements required to accommodate the replacement CPF; and
- additional improvements for the CPF that are outside of the limits of disturbance identified in the EIS, such as a well access road and construction laydown area.



Map showing all EA traffic, utility, and construction-related project areas



Resumen del Proyecto

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos

El Bureau of Engraving and Printing (BEP) pretende diseñar y construir una instalacion de produccion de moneda (CPF por sus siglas en ingles) de aproximadamente 1 millón de pies cuadrados en el Centro de investigación agrícola de Beltsville (BARC por sus siglas en inglés) para reemplazar la facilidad existente en Washington, DC la cual sufre de infraestructura ineficiente y anticuada.

La construcción y operación del remplazo del CPF fue atendido en la Declaración de Impacto Ambiental (EIS por sus siglas en ingles) para la Construcción y Operación de un CPF en la región de la Capital y el Registro de Decisión datado al 8 de octubre de 2021.

Un Evaluación Ambiental (EA) suplementaria está en progreso para atender el tráfico, utilidades y requisitos relacionados a construcción que se espera que se presenten por la construcción y operación del remplazo del CPF.

La Acción Propuesta para el EA incluye:

- Varias mejoras a las carreteras y siete (7) intersecciones identificadas en el EIS como mitigación requerida para minimizar atrasos y tráfico en las carreteras;
- Mejoramiento a la infraestructura de las utilidades necesarios para el acomodo del remplazo de CPF; y
- Mejoras adicionales para el CPF que están fuera de los limites construcción identificados en el EIS que incluyen una ruta de acceso y un área de preparación "staging" para la construcción.

Replacement Currency Production Facility



Mapa mostrando todo el tráfico del EA, utilidades y áreas relacionadas a la construcción del proyecto



Proposed Utilities Mitigation

Bureau of Engraving and Printing Traffic and Utilities Mitigation Projects

- 1) Verizon telecommunication service will be provided to the new CPF on existing overhead lines along Odell Road.
- 2) Pepco electrical service will be provided to the new CPF on overhead lines on existing pole routes along Odell Road.
- Washington Gas service will be provided to the new CPF using existing underground Washington Gas lines along Powder Mill Road and Odell Road.
- 4) Washington Suburban Sanitary Commission (WSSC) water supply service will be provided to the new CPF using an existing underground WSSC line along Odell Road.
- 5) A new sanitary sewer connection will need to be made for the new CPF. The preferred sanitary sewer route is to connect just north of Odell Road.
- 6) The second sanitary sewer connection option would use existing WSSC infrastructure southwest of the Edmonson Road at Powder Mill Road intersection.



Proposed Utilities Mitigation

BEP Boundary

Sanitary Sewer1_#5

Replacement Currency Production Facility



Beltsville Agricultural Research Center

For more information, visit the project website at: WWW.NAB.USACE.ARMY.MIL/HOME/BEP-REPLACEMENT-PROJECT

Propuesta para mitigación de utilidades

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos

- El servicio de telecomunicaciones de Verizon será provisto a la nueva instalacion de produccion de moneda (CPF por sus siglas en ingles) en líneas aéreas a lo largo de Odell Rd.
- Servicio eléctrico de Pepco será provisto al nuevo CPF en líneas aéreas en postes existentes en ruta a lo largo de Odell Rd.
- 3) El servicio de Washington Gas será provisto al nuevo CPF utilizando líneas subterráneas existentes pertenecientes a Washington Gas a lo largo de Powder Mill Rd y Odell Rd.
- 4) El servicio de suplido de agua potable será provisto por Washington Suburban Sanitary Commission (WSSC) al nuevo CPF utilizando líneas subterráneas existentes pertenecientes a lo largo de la Odell Rd.
- 5) Una nueva conexión de tubería sanitaria necesita ser instalada para el nuevo CPF. La ruta preferida para la tubería sanitaria es conectar solo al norte de Odell Rd.
- 6) La segunda opción para la conexión de la tubería sanitaria sería utilizar la infraestructura existente de WSSC al suroeste de la intersección de Edmonson Rd con Powder Mill Rd.



Proposed Utilities Mitigation

BEP Boundary

Sanitary Sewer1_#5

Replacement Currency Production Facility



Beltsville Agricultural Research Center

Para obtener más información, visite el sitio web del proyecto: WWW.NAB.USACE.ARMY.MIL/HOME/BEP-REPLACEMENT-PROJECT

Proposed Roadway Improvements

Bureau of Engraving and Printing Traffic and Utilities Mitigation Projects

1) MD201/Edmonston Rd. Area

- Proposed widening of MD201/Edmonston Rd. to improve the vehicular level of service.
- Existing traffic signals will be replaced.
- Proposed improvements include accommodations to become more bicycle friendly.
- 2) Baltimore-Washington Parkway Area
 - Proposed new signalization to improve vehicular level of service.
 - Proposed road widening to accommodate new turn lanes.

3) Entrance Road Area

- An entrance road to the CPF will be constructed between Animal Husbandry Rd and Poultry Rd. This action was previously addressed in the EIS.
- A portion of Sheep Rd near the intersection with Powder Mill Rd will be repaved.
- A portion of Poultry Rd, north of the parking entrance for BARC Bldg 229, will be removed.

4) Removal of all rumble strips on Powder Mill Rd. between MD201/Edmonston Rd. and BW Parkway.

5) Addition of new gravel road in the vicinity of BARC Bldg 229 to provide access to existing USDA wells.

After the completion of MD201 and BW Parkway proposed improvements, the level of service is expected to improve compared to the existing level of service today.



Replacement Currency Production Facility



Proposed Roadway Improvements











Beltsville Agricultural Research Center

For more information, visit the project website at: WWW.NAB.USACE.ARMY.MIL/HOME/BEP-REPLACEMENT-PROJECT

Mejoras propuesta a la vía pública

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos

- 1) Área cerca de MD 201/Edmonston Rd.
 - Ensanche propuesto para MD 201/Edmonston Rd. para mejorar el nivel de servicio del tráfico vehicular.
 - Semáforos existentes serán remplazados.
 - Mejoras propuestas incluyen acomodos y modificaciones para ciclistas.
- 2) Área del Baltimore-Washington Parkway
 - Nuevos semáforos propuestos para mejorar el nivel de servicio del tráfico vehicular.
 - Ensache propuesto para la carretera para el acomodo de nuevos carriles de giro.
- 3) Área de la carretera de entrada
 - Una carretera de entrada hacia la instalación de producción de moneda (CPF por sus siglas en inglés) será construida entremedio de Animal Husbandry Rd y Poultry Rd. Esta acción fue previamente atendida en la declaración de impacto ambiental (EIS por sus siglas en inglés).
 - Una porción de Sheep Rd cerca de la intersección con Powder Mill Rd será repavimentada.
 - Una porción de Poultry Rd, al norte de la entrada del estacionamiento para el edificio BARC 229, será removida.

4) Remoción de todas las bandas sonoras en Powder Mill Rd.entre MD201/Edmonston Rd. y BW Parkway.

5) Adición de una carretera de gravilla en los alrededores del edificio BARC 229 para proveer acceso a pozos existentes pertenecientes a USDA.

Luego de completar las mejoras propuestas se espera que el nivel de servicio mejore en comparación con el nivel de servicio existente hoy día.



Proposed Roadway Improvements

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Replacement Currency Production Facility







Beltsville Agricultural Research Center

Para obtener más información, visite el sitio web del proyecto: WWW.NAB.USACE.ARMY.MIL/HOME/BEP-REPLACEMENT-PROJECT

Bureau of Engraving and Printing Traffic and Utilities Mitigation Projects

NEPA requires Federal agencies to consider the impacts of their Proposed Actions on the natural and human environment prior to making any decision on action implementation.

For Federal actions that may affect the quality of the natural and human environment, an Environmental Assessment (EA) must be prepared.

- o Preparation of an EA is a multi-step process.
- o Public participation is an essential part of NEPA.

The construction and operation of the replacement currency production facility (CPF) was addressed in the Final Environmental Impact Statement (EIS) for the Construction and Operation of a CPF in the National Capital Region, with the signed Record of Decision, dated October 8, 2021. A supplemental EA is currently being drafted to study the impacts associated with the traffic and utilities mitigation being implemented with the CPF.



for public involvement.

Replacement Currency Production Facility



Beltsville Agricultural Research Center

For more information, visit the project website at: WWW.NAB.USACE.ARMY.MIL/HOME/BEP-REPLACEMENT-PROJECT

Proceso y calendario de la Ley Nacional de Política Ambiental (NEPA por sus siglas en ingles)

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos

NEPA requiere que agencias Federales consideren los impactos de sus Acciones Presentadas en el entorno humano y natural previo a tomar la decisión de acción de implementación.

Para acciones Federales que podrían afectar la calidad del entorno natural y humano, es necesario preparar una evaluación ambiental (EA)

- o La preparación de una EA es un proceso de múltiples pasos.
- o Participación publica es parte esencial de NEPA.

La construcción y operación del reemplazo de la instalacion de produccion de moneda (CPF por sus siglas en inglés) fue mencionado en la declaración de Impacto Ambiental (EIS por sus siglas en inglés) final para la construcción y operación de un CPF en la región capital nacional, con el registro de decisión firmada y fechado el 8 de octubre de 2021. Actualmente se está redactando un EA suplementario para estudiar los impactos asociados con el tráfico y mitigación de utilidades siendo implementado con el CPF.



Color verde indica oportunidad para participación ciudadana

Replacement Currency Production Facility



Beltsville Agricultural Research Center

Para obtener más información, visite el sitio web del proyecto: WWW.NAB.USACE.ARMY.MIL/HOME/BEP-REPLACEMENT-PROJECT

Environmental Resource Areas

Bureau of Engraving and Printing Traffic and Utilities Mitigation Projects

Resource areas to be analyzed in the EA include:

- \circ Land use
- o Aesthetics and visual resources
- Air quality
- \circ Noise
- o Soils and topography
- o Water resources, including wetlands and floodplains
- o Biological resources
- o Cultural resources
- o Socioeconomics and environmental justice
- Traffic and transportation
- o Utilities
- o Hazardous and toxic materials and waste
- o Cumulative effects

Environmental surveys completed to date:

- o Wetland delineations: completed fall 2023
- Forest stand delineations: completed fall 2023
- Phase I archeological surveys: completed fall 2023



Existing Conditions - Wetlands and Streams

BEP Boundary BEP PEM1A PEM1A PEM = palustrine emergent wetlands



Existing Conditions - Forest Stands

Stand T1 Stand T3 Stand T5 Stand T2 Stand T4 Stand T6



Áreas de Recursos Ambientales

Las áreas de recursos a ser analizadas en el EA incluyen:

- o Uso de terreno
- o Estética y recursos visuales
- o Calidad del aire
- o Ruido
- o Suelos y topografía
- o Recursos de agua, incluyendo humedales y zonas de inundación
- o Recursos biológicos
- o Recursos culturales
- o Socioeconomía y justicia ambiental
- o Tráfico y transportación
- o Utilidades
- o Materiales nocivos y tóxicos y desperdicios
- o Efectos acumulativos

Evaluaciones ambientales completadas al día de hoy:

- o Delineación de humedales: completados en otoño de 2023
- o Delineación de masa forestal: completados en otoño de 2023
- o Fase 1 de evaluaciones arqueológicas: completados en otoño de 2023

Oficina de Grabado e Impresión (BEP*) Mitigación de Tráfico y Servicios Públicos



Existing Conditions - Wetlands and Streams BEP Boundary All Streams C PEM1A BEP PEM = palustrine emergent wetlands PFO = palustrine forested wetlands



Existing Conditions - Forest Stands

d T1 Stand T3 Stand d T2 Stand T4 Stand

Replacement Currency Production Facility



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