

FINAL ENVIRONMENTAL ASSESSMENT

NOAA EASEMENT FOR VIRGINIA DEPARTMENT OF TRANSPORTATION ROUTE 606 WIDENING

Loudoun County, Virginia

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**Prepared For:
National Oceanic and Atmospheric Administration**

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EXECUTIVE SUMMARY

The National Oceanic and Atmospheric Administration (NOAA)/National Weather Service (NWS) operates the Baltimore/Washington Weather Forecast Office (WFO) on a 230.4-acre parcel of land located adjacent to the northwest corner of Washington Dulles International Airport (IAD) in Sterling, Virginia. The NOAA property is also home to the Sterling Field Support Center (SFSC) which is the primary NWS laboratory for testing, research, and operational evaluation of meteorological instrumentation.

The Virginia Department of Transportation (VDOT) proposes to widen an existing five-mile stretch of Route 606, between Route 621 and Route 267, from two lanes to a four-lane median divided roadway. To accommodate this project, VDOT has requested that NOAA grant 12.3 acres of permanent easement and 10.8 acres of temporary easement to VDOT, which includes 1.2 acres of NOVEC utility easements, on 22.3 acres of NOAA property.¹ The purpose of this Environmental Assessment is to analyze the potential environmental impacts of responding to VDOT's easement request in a manner that is consistent with the operational needs of the WFO and SFSC.

This Environmental Assessment (EA) has been prepared in accordance with NEPA implementing regulations at 40 CFR Sections 1500-1508, and procedures documented in NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (amended May 20, 1999).

This EA evaluates the Proposed Action (granting the easement to VDOT) and the No Action Alternative (not granting the easement for the Route 606 widening).

Under the Proposed Action, NOAA would grant VDOT 12.3 acres of permanent and 10.8 acres of temporary easement for operational, capacity, and safety improvements on Route 606. Additional actions would include utility relocation, stormwater management (SWM) facility construction, Automated Surface Observing System (ASOS) relocation, and construction of a new entrance road located at the Route 606 and Ladbrook Drive intersection. These actions would be taken to ensure the operational needs of NOAA are accommodated.

Under the No Action Alternative, NOAA would not grant the permanent and temporary easements to VDOT for the Route 606 widening. The No Action Alternative would result in the NOAA facilities continuing operations at their present conditions and Route 606 remaining at its current width adjacent to the NOAA property.

¹ The temporary and permanent easement acreages are larger than the total land footprint that would be used by VDOT. This is due to the NOVEC and water utility easements overlapping the VDOT temporary and permanent construction easements. The easement numbers are given for land transfer purposes and the footprint is used to quantify impacts.

The table that follows presents a summary of the environmental effects for the Proposed Action. The Proposed Action would result in changes to the quality of the environment- there would be impacts to geology and soils, water resources, water quality, transportation, air quality, noise, and utilities. However, through the application of measures described in the EA, these impacts would be mitigated to less than significant levels.

The No Action Alternative would not result in significant effects on environmental resources or NOAA’s present operations; however, the No Action Alternative also potentially would not alleviate present and future traffic conditions on Route 606.

A FONSI, as defined in Section 4.01k of NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act*, is warranted for the Proposed Action. There is the potential for resource impacts to change based upon the approval of final design. It is anticipated that these design changes would result in less than significant impacts to the NOAA property and the environment. If final design results in a significant number of impact changes, a supplemental EA will be filed.

Table ES- 1. Summary of Anticipated Impacts and Proposed Mitigation for the Proposed Action

Resource	Anticipated Impacts	Proposed Mitigation
Land Use	<ul style="list-style-type: none"> • 22.3 acres of land • 12.3 acres permanent easement • 10.8 acres temporary easement • 1,228 feet new access road added • 3.3 acres SWM ponds added • Utility and ASOS relocations • Easements and design are compatible with existing and planned land uses 	<ul style="list-style-type: none"> • No mitigation required
Geology and Soils	<ul style="list-style-type: none"> • 22.3 acres of disturbed soil • 2.6 acres of impervious surface added • 2.6 acres of vegetated soils converted • 13.2 acres Prime Farmland soil impact • 9.1 acres hydric soil impact 	<ul style="list-style-type: none"> • BMP and ESC plan • VDOT approved SWM plan • Adherence to DEQ permit requirements
Water Resources	<ul style="list-style-type: none"> • 18 linear feet permanent stream impact • 7 linear feet temporary stream impact • 3.2 acres of permanent wetland impact • 0.3 acres of temporary wetland impact • Reestablishment of flow regimes • Mitigation of existing and potential flooding • Collection/detention of stormwater 	<ul style="list-style-type: none"> • Adherence to USACE, DEQ, and VMRC permit conditions • Utilization of regulatory agency approved mitigation banks to offset impacts • VDOT will adhere to policies and procedures for maintenance SWM facilities and roadside ditches

Resource	Anticipated Impacts	Proposed Mitigation
Water Quality	<ul style="list-style-type: none"> • 17.2 acres disturbed soil; 1.9 acres of new impervious surface in Horsepen Run watershed • 5.1 acres disturbed soil; 0.7 acres of new impervious surface in Lenah Run-Broad Run watershed • No public water supplies or water supply wells impacted 	<ul style="list-style-type: none"> • VDOT approved ESC and SWM plans • Adherence to stipulations in water quality permits • VDOT will adhere to policies and procedures for maintenance of SWM facilities and roadside ditches
Floodplains	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Coastal Resources	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Farmlands	<ul style="list-style-type: none"> • 13.2 acres Prime Farmland soil impact • These soils not considered to be contributors to potential prime or statewide important farmlands 	<ul style="list-style-type: none"> • No mitigation required
Hazardous Materials	<ul style="list-style-type: none"> • No expected impact 	<ul style="list-style-type: none"> • Creation of a Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan • Follow all local, state, and federal laws related to hazardous substances
Transportation	<ul style="list-style-type: none"> • Temporary congestion along Route 606 during construction • Improved LOS for 2036 build-conditions along Route 606 • Improved safety/access to NOAA property 	<ul style="list-style-type: none"> • Creation/implementation of Maintenance of Traffic plan • Ensure NOAA employees have access to facilities 24/7 during construction
Air Quality	<ul style="list-style-type: none"> • Temporary construction impacts • Potential damage from fugitive dust to NOAA equipment during construction 	<ul style="list-style-type: none"> • Adherence to DEQ air pollution regulations during project construction. • Stabilization practices in accordance with VDOT <i>Road and Bridge Specifications</i> manual • VDOT to provide a contractor for additional maintenance and inspection of the WFO HVAC system during construction

Resource	Anticipated Impacts	Proposed Mitigation
Noise	<ul style="list-style-type: none"> • Temporary construction noise impacts • No sensitive noise receptors on NOAA property • Potential minimal increase to ambient noise on site 	<ul style="list-style-type: none"> • Noise attenuation following VDOT <i>Road and Bridge Specifications</i> manual • Limit use of large construction equipment and earthmoving activity to the hours of 7 am to 9 pm
Biological Resources	<ul style="list-style-type: none"> • Section 7 – “No Effect” on threatened or endangered species • Not likely to impact federal or state listed species • No impact to any documented state-listed plants or insects • Potential impacts to Broad Run – Route 607 Stream Conservation Unit 	<ul style="list-style-type: none"> • Tree clearing restriction from April 15th to September 15th of any year to minimize potential effects to Northern Long-eared Bat • If not feasible, bat survey may be conducted following USFWS guidelines • Implementation of and strict adherence to applicable state and local ESC/SWM laws and regulations
Cultural Resources	<ul style="list-style-type: none"> • “No Effect” 	<ul style="list-style-type: none"> • No mitigation required • Suspension of activities and consultation with DHR if new resources are identified during construction
Visual Quality	<ul style="list-style-type: none"> • No new substantial visual elements or intrusions would be introduced 	<ul style="list-style-type: none"> • No mitigation required
Recreational Resources	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Socioeconomic/ Environmental Justice	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Utilities and Energy Consumption	<ul style="list-style-type: none"> • Utility relocations required • Negligible energy consumption and savings • Potential impact to radar operations during utility relocations 	<ul style="list-style-type: none"> • Close VDOT/NOAA coordination during construction to ensure equipment to move the utility lines will not impact radar operations and that there are no planned power/ data interruptions
Cumulative Impacts	<ul style="list-style-type: none"> • Minor impacts 	<ul style="list-style-type: none"> • No mitigation required

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
TABLE OF CONTENTS.....	v
ABBREVIATIONS	vii
1 PURPOSE AND NEED.....	1-1
1.1 Introduction	1-1
1.2 Purpose of and Need for the Action.....	1-1
2 ALTERNATIVES.....	2-1
2.1 Introduction	2-1
2.2 Proposed Action	2-1
2.3 No Action Alternative	2-4
3 ENVIRONMENTAL SETTING, CONSEQUENCES, AND MITIGATION.....	3-1
3.1 Introduction	3-1
3.2 Land Use	3-1
3.3 Geology and Soils	3-4
3.4 Water Resources.....	3-6
3.5 Water Quality	3-8
3.6 Floodplains	3-10
3.7 Coastal Resources	3-11
3.8 Farmlands.....	3-12
3.9 Hazardous materials	3-12
3.10 Transportation	3-14
3.11 Air Quality.....	3-15
3.12 Noise.....	3-17
3.13 Biological Resources.....	3-20
3.14 Cultural Resources	3-24
3.15 Visual Quality	3-27
3.16 Recreational Resources	3-28
3.17 Socioeconomics/Environmental Justice.....	3-29
3.18 Utilities and Energy Consumption	3-31
3.19 Indirect Effects and Cumulative Impacts	3-32
4 PUBLIC INVOLVEMENT	4-1
4.1 Responses to Comments on Draft EA.....	4-2
5 FINDINGS.....	5-1
6 LIST OF PREPARERS.....	6-1
7 REFERENCES	6-1

LIST OF FIGURES

Figure 1-1: Preferred Build Alternative for the Route 606 Reconstruction Project (VDOT 2013) 1-2
Figure 1-2: Proposed VDOT Route 606 Reconstruction Project on NOAA Property 1-4
Figure 1-3: SFSC Facility 1-5
Figure 1-4: WFO Facility..... 1-6
Figure 2-1: Route 606 Typical Section along NOAA Property..... 2-2
Figure 2-2: Proposed VDOT Route 606 Reconstruction Project on NOAA Property 2-2
Figure 3-1: Current Layout of the NOAA Property..... 3-2
Figure 3-2: Soils on the NOAA Property (NRCS) 3-5
Figure 3-3: Surface Waters and Wetlands on the NOAA property (NWI and field survey)..... 3-7
Figure 3-4: Floodplains near the NOAA property (FEMA) 3-11
Figure 3-5: Sensitive Noise Receptors (VDOT 2013)..... 3-18
Figure 3-6: Forest Cover on the NOAA Property (Loudoun County)..... 3-20
Figure 3-7: DCR Habitat Resources 3-22
Figure 3-8: Cultural Resources near the NOAA Property (adapted from VCRIS) 3-25
Figure 3-9: Phase I Archaeological Resources Identified (William and Mary Center for
Archaeological Research 2015) 3-26
Figure 3-10: NOAA Property Census Tracts..... 3-29

LIST OF TABLES

Table 3-1. Soils Types on the NOAA Property (NRCS Web Soil Survey, 2015)..... 3-4
Table 3-2. VDGIF-listed Species within Two Miles of the NOAA Property 3-21
Table 3-3. Rare Plants associated with Diabase Soils (DCR and NatureServe)..... 3-22
Table 3-4. Racial/Ethnic Data for Virginia, Loudoun County, and Census Tracts 6119 and 9801
..... 3-30
Table 3-5. Income data for Virginia, Loudoun County, and Census Tract 6119 3-31
Table 4-1. Agencies Commenting on Draft EA..... 4-1
Table 5-1. Summary of Anticipated Environmental Impacts for the Proposed Action..... 5-1

LIST OF APPENDICES

- APPENDIX A. Joint Permit Application Correspondence
- APPENDIX B. Rare, Threatened, and Endangered Species Coordination
- APPENDIX C. Department of Historic Resources Coordination
- APPENDIX D. Agency Comments on Draft EA

ABBREVIATIONS

APE	Area of Potential Effect
ASOS	Automated Surface Observing System
AST	Aboveground Storage Tank
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (1980)
CFR	Code of Federal Regulations
DCR	Department of Conservation and Recreation
DEQ	Virginia Department of Environmental Quality
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESC	Erosion Sediment Control Plan
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FWS	United States Fish and Wildlife Service
IAD	Washington Dulles International Airport
JPA	Joint Permit Application

LOS	Level of Service
MOT	Maintenance of Traffic
MWAA	Metropolitan Washington Airports Authority
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act (1969)
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NOVEC	Northern Virginia Electric Cooperative
NPDES	National Pollution Discharge Elimination System
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWS	National Weather Service
PDGI	Planned Development-General Industrial
RCRA	Resource Conservation and Recovery Act (1976)
SFSC	Sterling Field Support Center
SIP	State Implementation Plan
SWM	Stormwater Management
TIP	Transportation Improvement Program
UAIS	Upper Air Inflation Shelter
US	United States
USACE	United States Army Corps of Engineers
USC	United States Code
UST	Underground Storage Tank

VAC	Virginia Administrative Code
VCRIS	Virginia Cultural Resource Information System
VDGIF	Virginia Department of Game and Inland Fisheries
VDOT	Virginia Department of Transportation
VSMP	Virginia Stormwater Management Program
VWPP	Virginia Water Protection Permit
WFO	Weather Forecast Office
WSR-88D	Weather Surveillance Radar—Model 1988 Doppler

1 PURPOSE AND NEED

1.1 INTRODUCTION

The National Oceanic and Atmospheric Administration (NOAA) is reviewing a request from the Virginia Department of Transportation (VDOT) for easements on its property in Sterling, Virginia where its Sterling Field Support Center (SFSC) and Baltimore/Washington Weather Forecast Office (WFO) are located. VDOT is proposing roadway reconstruction that would upgrade the existing two-lane, approximately five-mile section of Route 606 (Loudoun County Parkway/ Old Ox Road) between Route 621 and Route 267 to a four-lane roadway with divided median and additional signalized intersections (**Figure 1-1**). The widening of Route 606 would require approximately 12.3 acres of permanent easement and approximately 10.8 acres of temporary easement on 22.3 acres of NOAA property¹. The Proposed Action includes 7.1 acres of permanent transportation easement, 3.9 acres of permanent stormwater management (SWM) easement, 1.2 acres of permanent Northern Virginia Electric Cooperative (NOVEC) easement, 0.1 acres of permanent water utility easement, and 10.8 acres of temporary easement for construction of Route 606 and a new access road to NOAA's property, replacement of culverts, and the relocation of two Automated Surface Observing Systems (ASOS).

The purpose of this Environmental Assessment (EA) is to analyze the potential environmental impacts of responding to VDOT's easement request in a manner that is consistent with the operational needs of the WFO and SFSC. This EA has been prepared in accordance with NEPA implementing regulations at 40 CFR Sections 1500-1508, and procedures documented in NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (amended May 20, 1999).

1.2 PURPOSE OF AND NEED FOR THE ACTION

NOAA has received an easement request from VDOT on 22.3 acres of land adjacent to Route 606 at its Sterling, Virginia property (NOAA property). NOAA's SFSC and WFO are located on the property.

¹ The temporary and permanent easement acreages are larger than the total land footprint that would be used by VDOT. This is due to the NOVEC and water utility easements overlapping the VDOT temporary and permanent construction easements. The easement numbers are given for land transfer purposes and the footprint is used to quantify impacts.

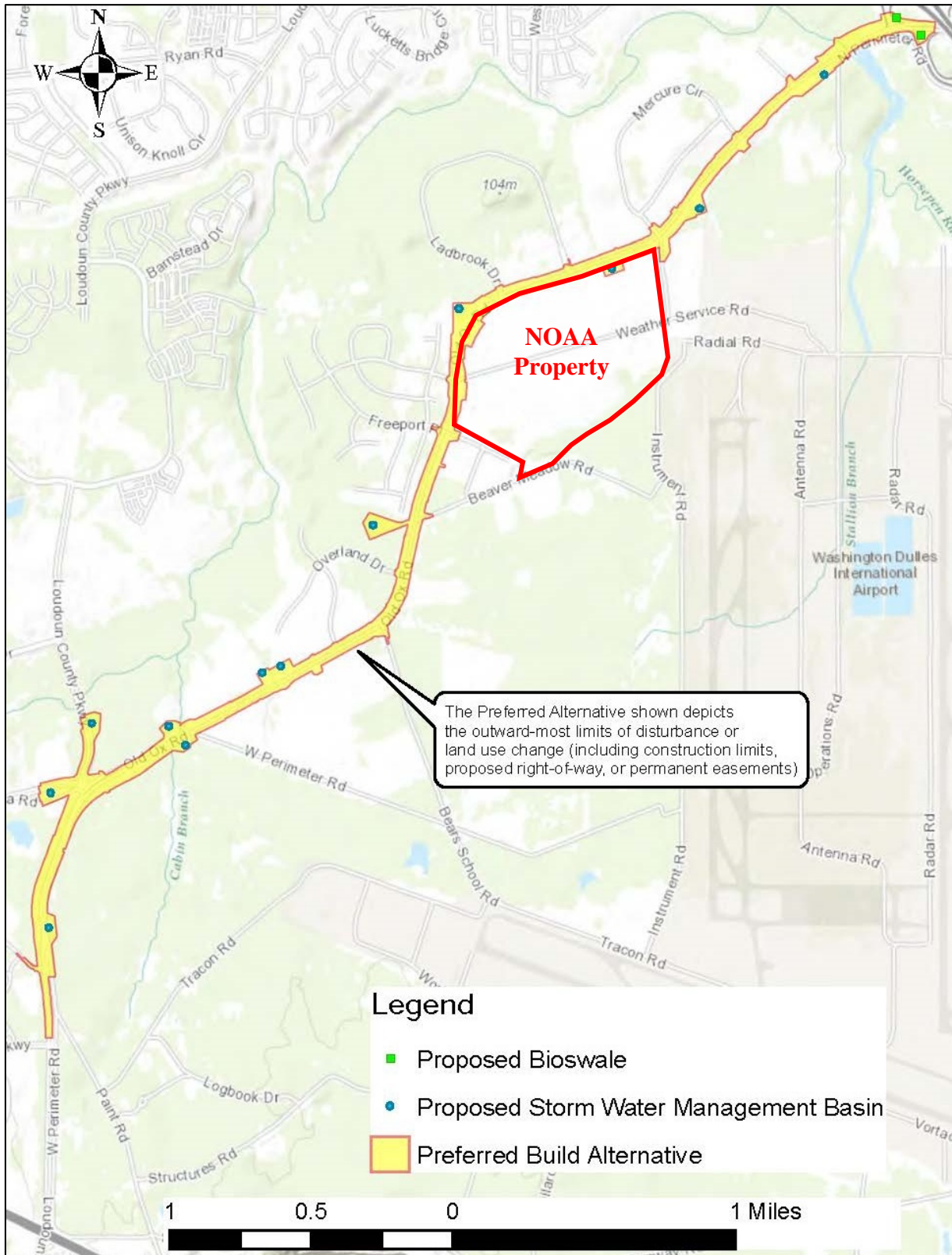


Figure 1-1: Preferred Build Alternative for the Route 606 Reconstruction Project (VDOT 2013)

The following operational needs of the SFSC and WFO will be considered in determining how best to respond to VDOT's easement request. Additional details on the Route 606 Reconstruction Project are located in **Section 1.2.1**. A description of the SFSC and WFO facilities and operations are located in **Section 1.2.2**:

- Facility Access. Access to both northbound and southbound Route 606 needs to be safe and convenient.
- Weather Balloon Launches. Weather balloon launches from the property must be able to continue safely.
- Drainage. Any additional development must take into account flooding and stormwater concerns on the property.
- Equipment Protection. Sensitive equipment on the property should not be affected.
- Continual Operations. The NOAA facilities need to be able to operate 24 hours a day, 7 days a week during and after the VDOT highway project.

1.2.1 Route 606 Reconstruction Project Background

VDOT, in coordination with the Federal Highway Administration (FHWA) as the lead federal agency, and with the Federal Aviation Administration (FAA) and United States (US) Army Corps of Engineers (USACE) as cooperating federal agencies, evaluated solutions to provide transportation improvements along Route 606 in Loudoun County in the EA of the *Route 606 (Loudoun County Parkway/Old Ox Road) Reconstruction Project*, dated June 11, 2013. The stated purpose of the Route 606 Reconstruction Project is to “improve the capacity and safety of a heavily trafficked roadway and to provide a critical leg of the proposed Dulles Loop by widening the existing two-lane roadway to a four-lane roadway with divided median and signalized intersections”. The needs of the Route 606 Reconstruction Project are:

- Improve capacity and reduce congestion.
- Improve traffic safety through improvements to roadway geometry and operations.
- Provide a critical segment of proposed Dulles Loop.
- Allow improved connectivity with the regional multimodal transportation network.

A Finding of No Significant Impact (FONSI) for the Route 606 Reconstruction Project was issued by FHWA on November 20, 2013.

Construction of the Route 606 Reconstruction Project began in September 2015. Construction on the NOAA property is scheduled to begin in fall 2016. VDOT is proposing to upgrade the existing two-lanes of Route 606 to a four-lane roadway. On the NOAA property, VDOT is requesting permanent and temporary easements to widen Route 606 onto NOAA property. The design requires the realignment of the entrance to Weather Service Road, as well as associated access roads off of Weather Service Road. The Route 606 design also includes three proposed SWM facilities and their associated access roads. To improve access to the NOAA facilities, VDOT also is proposing a new access road on NOAA property, connecting Route 606 at Ladbroke Drive to Weather Service Road. The road is included in the requested VDOT permanent and temporary construction easements. As a result of the ASOS's increased

proximity to Route 606, additional temporary easements are needed for the relocation of the two ASOS located south of the Route 606 and Ladbrook Drive intersection. The proposed design and required easements on the NOAA property are displayed in **Figure 1-2**.

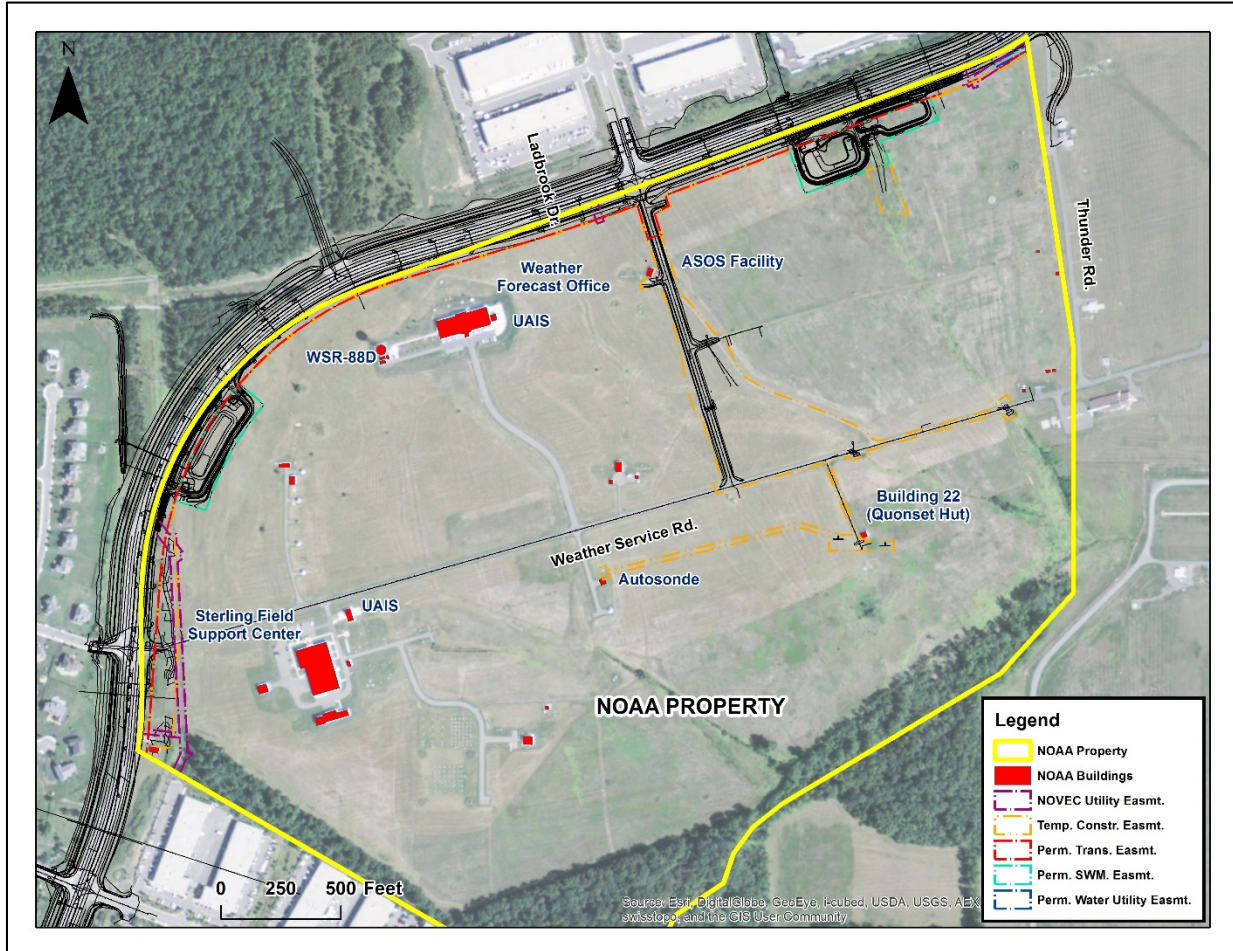


Figure 1-2: Proposed VDOT Route 606 Reconstruction Project on NOAA Property

1.2.2 NOAA Facilities and Operations

The NOAA property at Sterling is comprised of approximately 230.4 acres and includes two main NOAA facilities: the SFSC and WFO (**Figure 1-2**). The SFSC is located on the southwestern portion of the NWS property, near Weather Service Road. Multiple testing facilities are accessible from an access road to the southeast of the SFSC building. The WFO building is located on the northern portion of the NWS property, just south of Route 606 and west of Ladbrook Drive. The WFO has a Weather Surveillance Radar—Model 1988 Doppler (WSR-88D) tower to its west. There are multiple additional facilities and test locations located on the property. Ingress and egress from the NOAA property onto Route 606 is currently provided at Weather Service Road and Thunder Road.

The SFSC is a national testing and evaluation center for the National Weather Service (NWS) (**Figure 1-3**). There is a staff of approximately 20 people who keep the office operating 16 hours



Figure 1-3: SFSC Facility

a day, 5 days a week, unless there is an emergency. This site is the main test center for the Upper Air Operations, which oversees the operation of 92 radiosonde stations across North America and the Pacific Islands. Upper Air Operations also tests weather balloons, requiring multiple balloon launches from multiple stations. The balloons are launched either from Upper Air Inflation Shelters (UAISs) or from an Autosonde, which is an automatic radiosonde launcher that, once supplied, automatically prepares and launches weather balloons and attached radiosondes. The weather balloons generally have a 100-foot train and need an approximate 300-foot protection radius around them to ensure the balloons will not be obstructed by its surroundings. The UAIS at the SFSC, however, needs a 600-foot protection radius since it tests equipment which could require a longer train.

The SFSC also manages Surface Operations, which include planning and implementation of surface observing equipment and systems. Operations include test chambers, wind tunnels, two ASOS, and field test beds located throughout the NOAA property. The ASOS and test beds generally require a 500-foot radius of protection to ensure the equipment is not affected by outside variables.

The WFO provides weather, hydrologic, and climatic forecasts and warnings for the District of Columbia, much of Maryland, Northern Virginia, and eastern panhandle of West Virginia (**Figure 1-4**). A staff of approximately 25 people keeps the office operating 24 hours a day, 7 days a week. On-site is a WSR-88D tower, which provides radar surveillance for continuous weather watch of the region. Meteorologists use data from the radar tower to provide forecasts and warnings. The WSR-88D has a 1,200-foot buffer in which the radar's beam could be obstructed by tall equipment or structures. Also on-site is a UAIS from which weather balloons



Figure 1-4: WFO Facility

are prepared and launched at least twice a day. This facility also needs a 300-foot protection radius.

The NOAA property has numerous paved and unpaved roadways and paths. There is also a system of ditches and culverts located along the roadways to divert water from the property to a tributary of Stallion Branch and other waterways. Both the existing drainage system and some natural drainage channels move water across the property. NOAA has observed numerous flooding events on the property, with the majority of flooding occurring at the intersection of Thunder Road and Weather Service Road, the SFSC Building 19 access road, along the tributary to Stallion Branch, and to the north between Ladbrook Drive and Thunder Road.

2 ALTERNATIVES

2.1 INTRODUCTION

This EA evaluates two alternatives for the easement along Route 606. These include the Proposed Action (granting the easement to VDOT for the Route 606 widening) and the No Action Alternative (not granting the easement to VDOT for the Route 606 widening).

2.2 PROPOSED ACTION

Under the Proposed Action, NOAA would grant VDOT a total of 12.3 acres of permanent easement and 10.8 acres of temporary easement on 22.3 acres of land. This section is divided into what is needed for the widening of Route 606 and the additional improvements on the NOAA property.

The widening of Route 606 would require approximately 6.8 acres of permanent easement of NOAA property for operational, capacity, and safety improvements on Route 606. The easement would allow VDOT to widen Route 606 from two lanes to four lanes. Please see **Figure 2-1** for a typical section of the roadway along the NOAA property and **Figure 2-2** for the roadway design. The widening of Route 606 also would require the realignment of the entrance to Weather Service Road, as well as associated access roads. As a result of the widening, VDOT would require NOVEC to relocate the existing overhead utility lines in four locations. On the west side of the NOAA property, the NOVEC utility lines would be relocated from the west side of Route 606 to the east side, adjacent to the existing NOAA fence line at Route 606 and Weather Service Road. The NOVEC utility lines along the north side of the NOAA property would be relocated from the south side of Route 606 to the north side of Route 606, placing the lines over 300 feet from the UAIS at the WFO site. Two other NOVEC utility lines would be relocated/extended east of the new access road. The NOVEC utility line relocations would require 1.2 acres of permanent easement. Additionally, a 0.1 acre permanent easement would be required to provide Loudoun Water a water utility line that runs north of one of the NOVEC utility lines near Thunder Road. The widening of Route 606 also would relocate the existing fence along the NOAA property to the proposed easement boundary.

VDOT requires 0.3 acres of permanent and 8.3 acres of temporary easement on the NOAA property for construction of an access road and the relocation of the ASOS. To ensure safe access to the NWS property, VDOT would provide a new, signalized entrance to the NOAA property at Ladbrook Drive and a new roadway connecting Weather Service Road to Route 606 at the Ladbrook Drive intersection. A security gate would be installed along the new access road and connect to the proposed fence along Route 606. The new entrance and access road would tie to Weather Service Road, running directly north/south. The alignment of the access road would require the extension of an existing road running east/west between Thunder Road and the existing ASOS. The widening of Route 606 requires the two ASOS test units nearest to Route

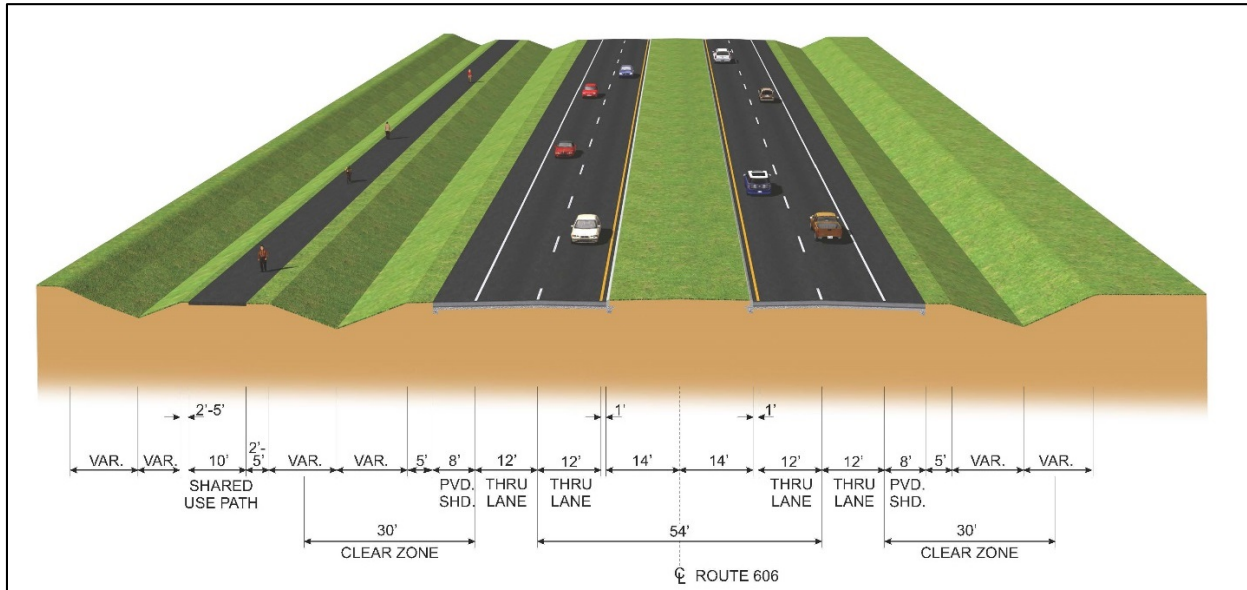


Figure 2-1: Route 606 Typical Section along NOAA Property

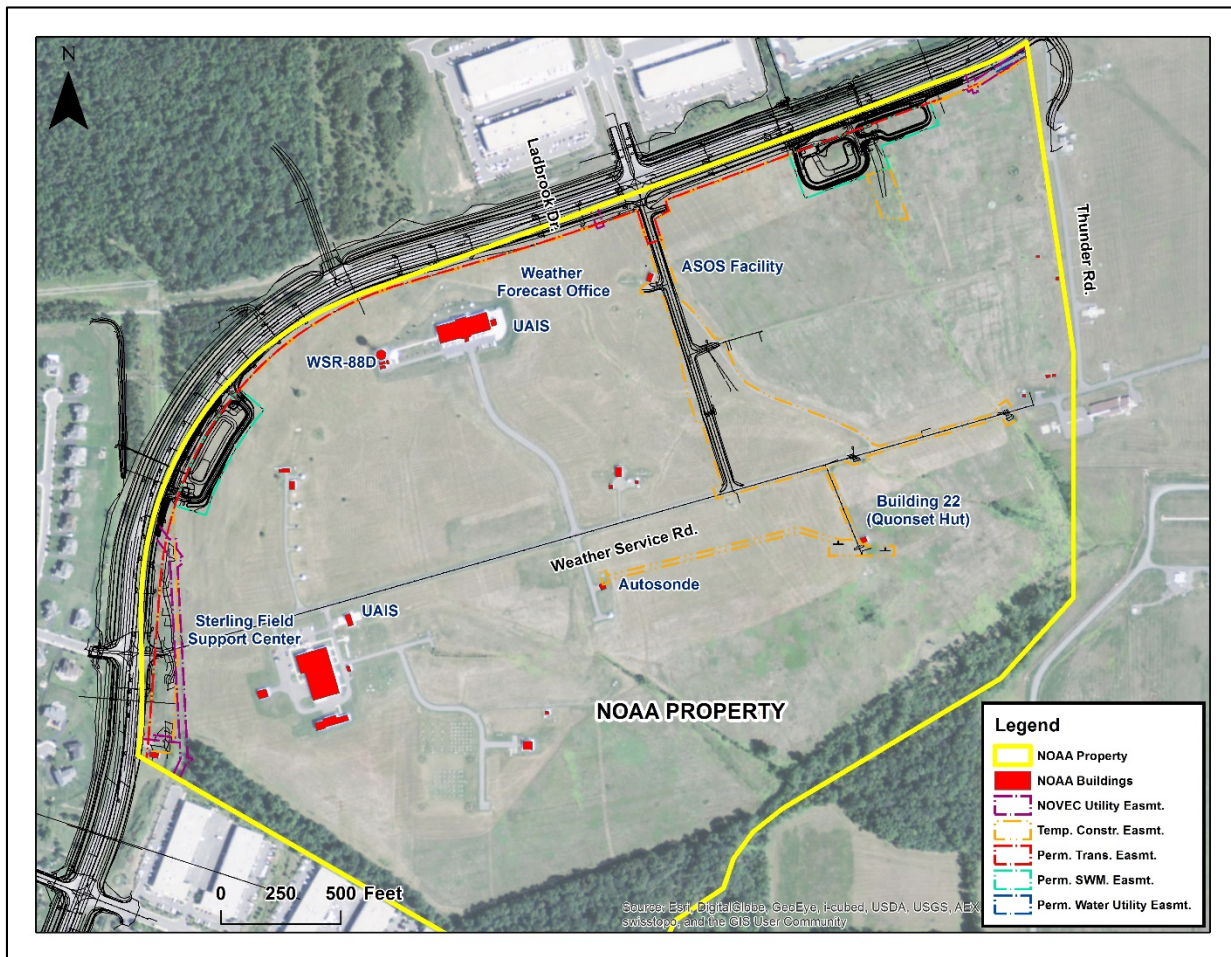


Figure 2-2: Proposed VDOT Route 606 Reconstruction Project on NOAA Property

606 be relocated. The two ASOS are used for testing and require a 500-foot protection radius. The ASOS are presently located approximately 400 feet from the existing Route 606 alignment, which is less than ideal. Further encroachment and increased traffic, due to the widening of Route 606, will further impact ASOS test operations and require the two ASOS to be relocated to an area where the 500-foot protection radius could be maintained.

The proposed new location of the ASOS is south of Weather Service Road near the existing Quonset hut (Building 22). This location was chosen because it offers the required 500-foot buffer from roadways and 300 and 600-foot buffer from weather balloon launches. The relocation includes moving the existing ASOS equipment; installing new rails, pads, and utility connections; creating two parking spaces near the testing equipment; repaving the road to the ASOS; and removing the Quonset hut located at the new ASOS location. New underground utility lines would be installed from the nearby Autosonde/radomes to the proposed ASOS relocation site.

Two SWM facilities would be constructed on the NOAA property to address increased impervious surface from widening Route 606 (SWM 29 and SWM 34). One additional smaller SWM facility would be built to address current issues created by runoff from the industrial park north of Route 606 and potential future flooding and drainage issues on the NOAA property (SWM 34B). SWM 29 would be approximately one acre in size, located in the northwest corner of the NOAA property, approximately 600 feet north of Weather Service Road. SWM 29 would require 1.6 acres of permanent easement. SWM 34 and SWM 34B would be approximately 0.75 and 0.4 acres in size respectively, located between Thunder Road and Ladbrook Drive. SWM 34 and 34B would require 2.3 acres of permanent easement

The Proposed Action also includes the addition and replacement of culverts to assist water flow across the NOAA property. Two culverts along Weather Service Road would be replaced. Culverts also would be placed underneath the proposed access road to limit impacts of the new roadway on existing hydrology.

2.2.1 Ability to Meet the Route 606 Project and NOAA Operational Needs

With the Proposed Action, NOAA would be responsive to VDOT's request for an easement, and the Route 606 Project would be able to proceed. Furthermore, operations at the NOAA property would continue and VDOT would provide improvements to the NOAA property to ensure the Route 606 Project would not significantly impact NOAA's operational needs, as described below.

- The signalized entrance and new access road would provide safe and convenient access to and from Route 606 and the NOAA facilities.
- Overhead utilities would be relocated over 300 feet from the existing WFO UAIS and Autosonde and 600 feet from the SFSC UAIS, increasing safety for NOAA weather balloon operations.
- Design would include measures to mitigate any impacts to the ASOS or test bed facilities, including relocation of facilities, to ensure there is a 500-foot buffer between any new roads and the testing equipment.

- Design and construction would include measures to avoid impacts to the WSR-88D radar beam to ensure that any work within a 1,200-foot buffer of the radar tower will not extend above existing structures, or approximately 334 MSL.
- Additional SWM facility capacity, replacement of culverts beneath Weather Service Road, and the placement of culverts underneath the new access road would attenuate flooding and drainage issues on the NOAA property.
- A replacement fence and gate for areas where VDOT's easement is beyond the existing fence line would provide security to the sensitive equipment on the NOAA property.
- A Maintenance of Traffic (MOT) plan would be created to ensure 24/7 access to the NOAA facility during construction.
- VDOT and the contractor would maintain close coordination with NOAA during construction to ensure there would be no planned interruptions to NOAA operations.

2.3 NO ACTION ALTERNATIVE

Under the No Action Alternative, NOAA would not grant the permanent and temporary easements to VDOT for the Route 606 Reconstruction Project or for the operational improvements to the NOAA property. The No Action Alternative would result in the continuation of the present operational conditions at the NOAA facilities and the present transportation conditions on Route 606. VDOT would not widen Route 606 on the NOAA property, build a new signalized entrance to the NOAA property at Ladbrook Drive, relocate the two ASOS, realign the intersection of Route 606 at Weather Service Road, construct new SWM facilities on the NOAA property, or relocate utilities.

2.3.1 Ability to Meet the Route 606 Project and NOAA Operational Needs

If NOAA does not grant VDOT the easement, then operations at the NOAA property (including access and weather balloon launches) would remain the same. However, NOAA would not be responsive to VDOT's request for an easement, and the Route 606 Reconstruction Project would not be able to proceed based on its current design. Furthermore, the flooding and stormwater issues on the NOAA property would not be attenuated as part of this project.

3 ENVIRONMENTAL SETTING, CONSEQUENCES, AND MITIGATION

3.1 INTRODUCTION

This chapter describes the current conditions on the NOAA property, the anticipated environmental consequences of the Proposed Action and the No Action Alternative, and any mitigation measures that would avoid, reduce, or minimize the effects of the Proposed Action.

3.2 LAND USE

3.2.1 Environmental Setting

The Public Buildings Amendments of 1988, Public Law 100 678 (US Congress, 1988) requires federal officials to consider local zoning and land use regulations, consult with local officials, and provide plans to local officials for a 30-day courtesy review during planning for construction of government facilities. The law also requires that the federal government permit normal building inspections by local officials (see Title 40 US Code [USC] Chapter 12, Section 619). The federal government cannot be obligated to take any action by local officials.

The Proposed Action is located on the NOAA property in Loudoun County, Virginia, northwest of Washington Dulles International Airport (IAD). Route 606 lies along the northern boundary of the property. The NOAA property is immediately surrounded by development: residences to the west, commercial buildings to the north and south, and IAD to the east. Most of the development surrounding NOAA's property occurred post-2003. Prior to this, NOAA's property was surrounded largely by open fields and forested areas.

Loudoun County zones the NOAA property as planned development – general industrial (PDGI), defined as medium intensity industrial uses with public nuisance potential. The Loudoun County Revised General Plan (amended through December 11, 2013) includes property within its Suburban Policy Area, where most of the residential and commercial growth has occurred in the County over the past 15 years. The General Plan supports designating the Route 606 corridor as industrial and flex use to further support current airport-linked businesses and to capture future potential airport-linked businesses. Coordination with Loudoun County has revealed that, pursuant to Section 1-103(A) of the Revised 1993 Zoning Ordinance, that the “regulations and restrictions in this Ordinance shall apply...excepting those areas determined by law to be under the sovereign control of the United States of America or the Commonwealth of Virginia.”

Aerial imagery depicts the majority of the site as mowed vegetation, with three main drainageways traversing the property (**Figure 3-1**). The property has two main facilities and additional buildings, test equipment, and test beds located throughout the property. The majority of the property is open fields to allow safe zones for the test equipment, with some evergreen

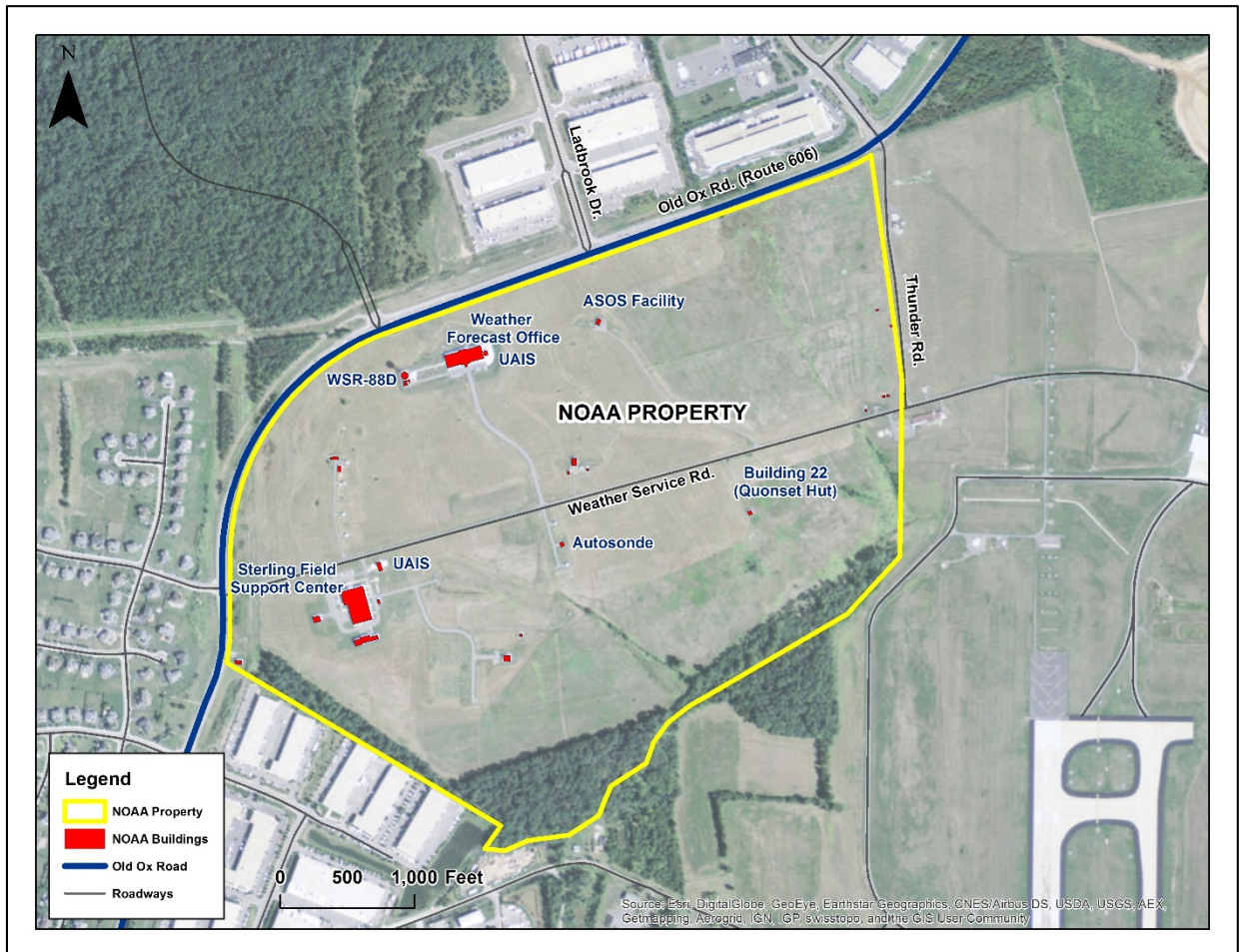


Figure 3-1: Current Layout of the NOAA Property

forest along its southern edge. The site is relatively flat and has had flooding issues that have been exacerbated by new development to the north and the new runway to the southeast.

The 230.4-acre NOAA property includes two main government buildings, with multiple testing facilities/test beds and access roads located on the grounds (**Figure 3-1**). There also are weather balloon launch pads located near the SFSC and WFO buildings (UAIS). For operational purposes, weather balloon launches require a 300-foot clearance zone around the launch site at the UAISs and a 600-foot clearance zone from the SFSC UAIS. This limits the height of proposed future development on the property around the launch pads. The test beds require a 500-foot protection radius around the equipment. The WSR-88D tower requires a 1,200-foot buffer area for the radar’s beam so that its signal is not blocked by surrounding tall structures. Based on existing structures and the height of the radar beam, no structure or equipment can be over 334 feet MSL within the 1,200-foot buffer.

3.2.2 Environmental Consequences and Mitigation

3.2.2.1 Proposed Action

With the Proposed Action, NOAA would accept VDOT's request of 12.3 acres of permanent easement and 10.8 acres of temporary easement on 22.3 acres of land. Within this easement, 1,228 feet of road and 3.3 acres of SWM facility would be constructed. The widening of Route 606 would convert mowed vegetation and wetland to impervious surface and right-of-way. The access road would replace mowed vegetation and would traverse a wetland system in three locations. A section of the existing north/south road would be removed and returned to vegetation. The ASOS relocation would require the creation of two parking spaces, resulting in the paving of less than 0.1 acres of mowed vegetation. The road to the new ASOS location would be repaved.

The Proposed Action would result in the relocation of some utility lines. The NOVEC power lines to the west of Route 606 would move east of the current Dominion Virginia high voltage lines, closer to NOAA's fence line, and the utility easement would encroach further onto NOAA's property. Since these utility lines are lower in height than the existing Dominion high voltage lines within the same vicinity, this relocation should not impact existing weather balloon launches from the UAISs. The NOVEC power lines to the north of NOAA's property would be relocated off of NOAA property, providing additional weather balloon clearance that would not have been possible if the lines remained on the south side of the newly realigned Route 606, as the new road alignment brings the road considerably closer to the WFO UAIS and would encroach upon the 300-foot protection radius. Two other NOVEC utility lines would be relocated/extended east of the new access road. The NOVEC utility line relocations would require 1.2 acres of permanent easement. Additionally, a 0.1 acre permanent easement would be required for a water utility line which runs north of one of the NOVEC utility lines near Thunder Road. New underground utility lines would be installed from the nearby Autosonde/radomes to the proposed ASOS relocation area.

The sighting of the new access road would disturb additional NOAA property, but it would ease facility access. The Proposed Action also offers improvements to the property to manage existing flooding from off-site sources.

The proposed easements and design are compatible with existing and planned land uses in the area. The Old Ox Road (Route 606) Corridor is planned to be widened from the future Loudoun County Parkway to the Dulles Greenway per the Loudoun County 2010 Countywide Transportation Plan. The widening of Route 606 to a four-lane divided road also is programmed in the National Capital Region's Transportation Improvement Program (TIP #6202) and 2011 Constrained Long Range Plan (Project ID VSL1b). Though the NOAA property is currently zoned as PDGI, as per coordination with Loudoun County and Section 1-103(A) of the Revised 1993 Zoning Ordinance, the NOAA property is not subject to the Loudoun County Zoning Ordinance.

Mitigation. No mitigation would be required.

3.2.2.2 No Action Alternative

The No Action Alternative would not grant the easement request to VDOT. No changes in current land use on the NOAA property would result. VDOT would not address flooding issues on the NOAA property as part of this project. Existing wetlands and mowed vegetation would not be converted to a transportation use or to SWM facilities. The ASOS would not be relocated and the Quonset hut would not be removed.

Mitigation. No mitigation would be required.

3.3 GEOLOGY AND SOILS

3.3.1 Environmental Setting

The NOAA property lies within Virginia’s Piedmont Physiographic Province, which can be characterized by its dendritic drainage patterns and hummocky, rocky hills. Elevations range from 260 to 300 feet on the NOAA property with relatively flat terrain.

According to the Natural Resources Conservation Service’s (NRCS) Web Soil Survey, there are six soil types found on the NOAA property, as described in **Table 3-1** and mapped in **Figure 3-2**. There are approximately 153.5 acres of Prime Farmland soils, 0.7 acres of Statewide Important soils, and 76.2 acres of hydric soils.

Table 3-1. Soils Types on the NOAA Property (NRCS Web Soil Survey, 2015)

Map Symbol	Soil Mapping Unit	Farmland Classification	Hydric Soil (Yes/No)
6A	Bowmansville silt loam, 0 - 2% slopes	Not Prime Farmland	Yes
68B	Jackland and Haymarket soils, 2 – 7% slopes	Statewide Important	No
73B	Penn silt loam, 2 – 7% slopes	Prime Farmland Soil	No
74B	Ashburn silt loam, 0 -7% slopes	Prime Farmland Soil	No
78A	Dulles silt loam, 0 – 2% slopes	Prime Farmland Soil	No
79A	Albano silt loam, 0 – 2% slopes	Not Prime Farmland	Yes

Predominant soil types on the NOAA property are Dulles silt loam and Albano silt loam. The Dulles series has high shrink-swell potential and is somewhat poorly drained, but not flooded or ponded. The Albano series has a moderate shrink-swell potential and is poorly drained, frequently flooded, and occasionally ponded.

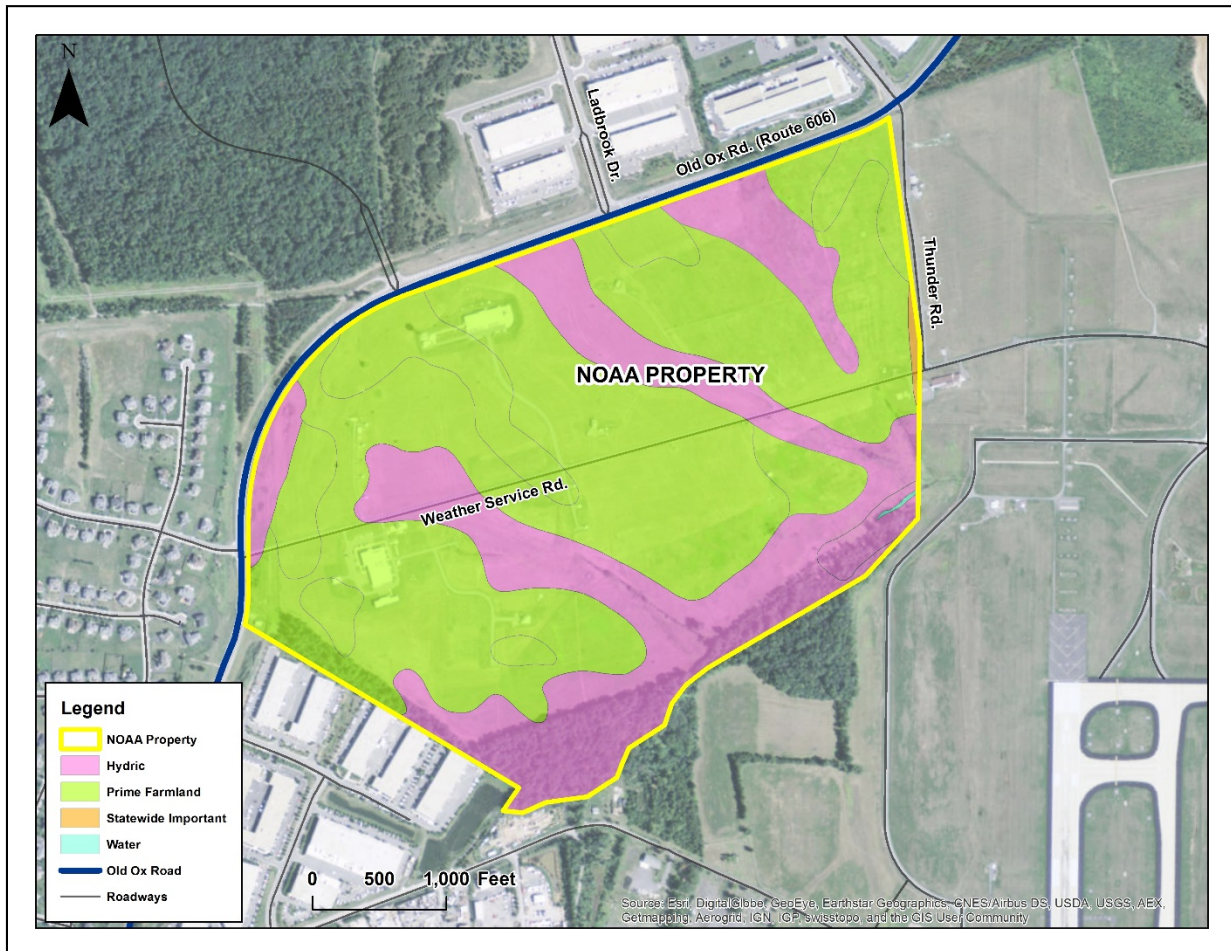


Figure 3-2: Soils on the NOAA Property (NRCS)

3.3.2 Environmental Consequences and Mitigation

3.3.2.1 Proposed Action

The Proposed Action would disturb up to 22.3 acres of soils. Grading and excavation would modify the existing topography of the easement area to accommodate the widening of Route 606, the access road, the ASOS relocation, and the SWM facilities. Disturbed soils would be subject to wind and water erosion during construction. The Route 606 widening and access road would result in the addition of 2.6 acres of impervious surface and result in the conversion of 2.6 acres of currently vegetated soils. The project would impact 13.2 acres of Prime Farmland soils and 9.1 acres of hydric soils. The section of the existing north/south road that would be removed and returned to vegetation is located on Prime Farmland soils (0.24 acres). Though surficial geology would be impacted by the Proposed Action due to grading, the underlying geologic formations would not be impacted.

Mitigation. As part of the Proposed Action, VDOT would promote best management practices and prepare an erosion and sediment control (ESC) plan to be implemented during construction. Measures would include, but are not limited to, minimizing the area of soil disturbance, grading

disturbed areas to promote proper drainage, installing silt fences, and promptly revegetating cleared areas. VDOT also would prepare and implement an approved SWM plan and adhere to any Virginia Department of Environmental Quality (DEQ) permit requirements.

3.3.2.2 No Action Alternative

Geology and soils would not be disturbed on the NOAA property due to the No Action Alternative.

Mitigation. No mitigation would be required.

3.4 WATER RESOURCES

3.4.1 Environmental Setting

Under Section 404 of the Clean Water Act, the USACE is responsible for jurisdictional Waters of the United States, including wetlands, and for issuing permits for construction in jurisdictional waters. The USACE defines federal jurisdictional waters as traditional navigable waters (subject to the ebb-and flow of tide), non-navigable tributaries of traditional navigable waters that are relatively permanent (annual or seasonal flow), and non-navigable waters that are not relatively permanent but have a significant nexus with a traditional navigable water. The USACE defines federal jurisdictional wetlands as those areas with a suitable hydrology regime and hydric soils that support (or could support) hydrophytic vegetation.

The NOAA property is located in the Potomac River-Broad Run watershed and spans two subwatersheds: Lenah Run-Broad Run and Horsepen Run. The wetland systems that drain the NOAA property generally flow southeast to the NOAA property line and then continue northeast and discharge eventually into the Potomac River. Surface waters generally drain south into a tributary of Stallion Branch, which runs east to Stallion Branch and north into Horsepen Run. Horsepen Run flows into Broad Run, which empties into the Potomac River. Wetlands west of the SFSC and WFO flow north across Route 606 and directly into Broad Run.

The NOAA property can be characterized as having a dendritic drainage pattern located on flat, low-lying land. There is a system of ditches and culverts located along the roadways to divert water from the property to a tributary of Stallion Branch and other waterways. Both the existing drainage system and some natural drainage channels move water across the property. NOAA has observed numerous flooding events on the property, with the majority of flooding occurring near the intersection of Thunder Road and Weather Service Road; the SFSC Building 19 access road; along the tributary to Stallion Branch; and to the north between Ladbrook Drive and Thunder Road.

According to the US Fish and Wildlife Service's (FWS) National Wetland Inventory (NWI), there are five wetlands within the NOAA property (**Figure 3-3**). The NWI identifies 0.30 acres of freshwater forested/shrub wetland (PFO1/EM1C) and 17.7 acres of freshwater emergent

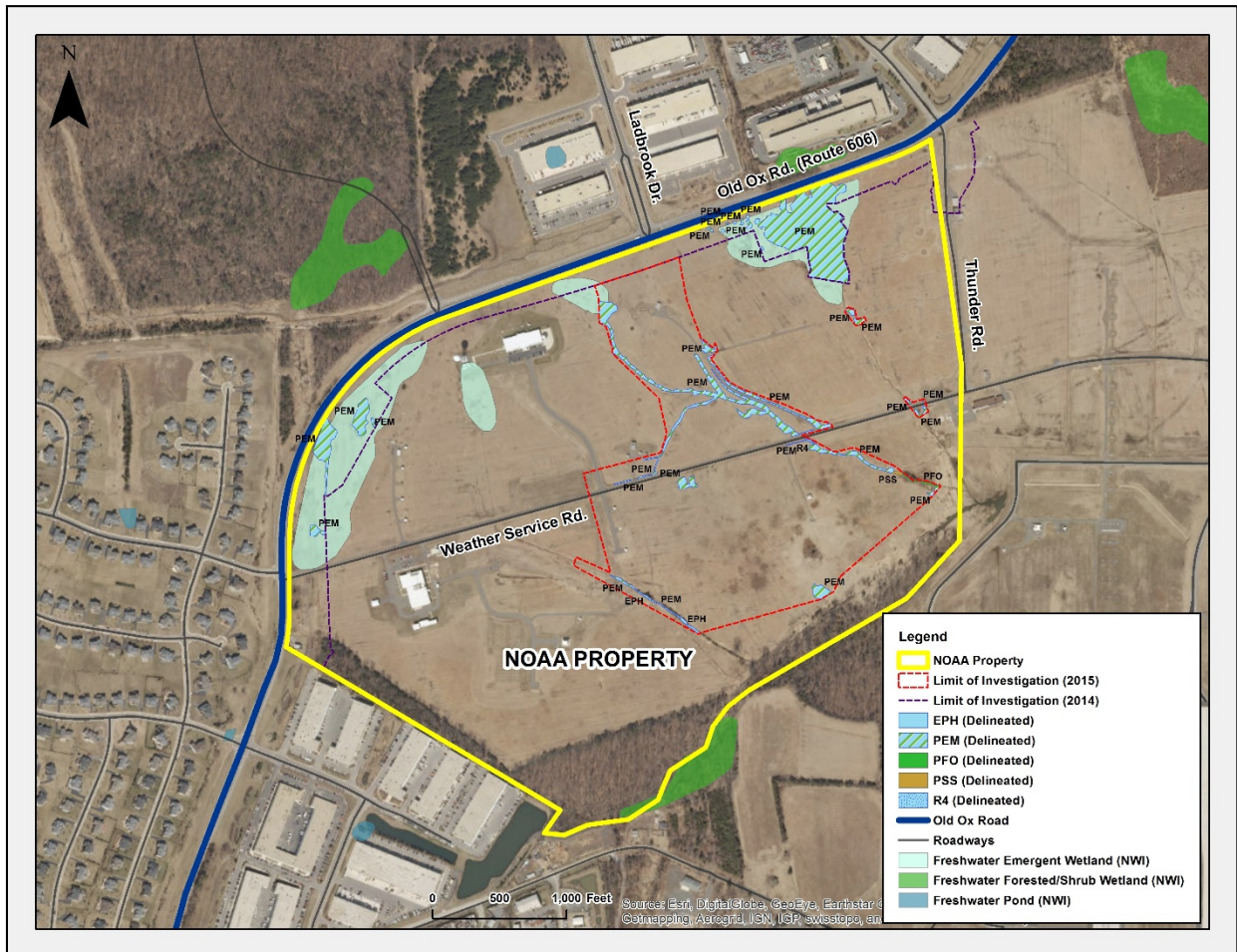


Figure 3-3: Surface Waters and Wetlands on the NOAA property (NWI and field survey)

wetland (PEM1C) on the NOAA property. The NWI does not identify any streams on the NOAA property.

A wetland delineation for the property has been conducted in those areas where the project is proposed to be constructed (**Figure 3-3**). The delineation has identified 398.9 linear feet of stream and 7.3 acres of wetland within the NOAA property. Specifically, 7.2 acres of wetland are palustrine emergent wetland, less than 0.1 acres are palustrine scrub-shrub wetland, and less than 0.1 acres are palustrine forested wetland. The majority of the wetlands drain into tributaries that flow south to Stallion Branch.

3.4.2 Environmental Consequences and Mitigation

3.4.2.1 Proposed Action

The Proposed Action would permanently impact 18 linear feet of stream and 3.2 acres of palustrine emergent wetland. It also would temporarily impact 7.0 linear feet of stream and 0.3 acres of palustrine emergent wetland. These impact quantities are subject to change by either design revisions or secondary impacts as coordinated through the regulatory agencies.

The Proposed Action would mitigate flooding on the property and collect and detain stormwater from Route 606. The proposed SWM facilities and culvert replacements would reestablish a more natural flow regime across the site and lessen the potential for flooding on the NOAA property.

VDOT's contractor submitted a Joint Permit Application (JPA) to USACE, DEQ, and VMRC on January 19, 2015 pertaining to the Route 606 Reconstruction Project. This JPA includes the wetlands and waters impacted by the Route 606 widening and its associated access roads and SWM facilities. A separate JPA to address potential wetland and water impacts due to the proposed access road and related SWM needs on the NOAA property will be submitted by VDOT's contractor. The current JPA permit approvals are located in **Appendix A**.

Mitigation. Mitigation requirements will be determined by USACE and DEQ through the permitting process.

3.4.2.2 No Action Alternative

The No Action Alternative would not disturb wetlands or waters on the NOAA property. The benefits of culvert replacement, reduced flooding, and SWM retention/ detention to managing the site's current hydraulic regime would not be realized as part of this project.

Mitigation. No mitigation would be required.

3.5 WATER QUALITY

3.5.1 Environmental Setting

Stormwater runoff is regulated by DEQ, which implements the Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Permit Regulations through the Virginia Stormwater Management Program (VSMP). DEQ also administers the Virginia Water Protection Permit (VWPP) program, which serves as Virginia's Section 401 certification program for federal Section 404 permits issued under the authority of the Clean Water Act.

According to EPA's MyWATERS Mapper, the tributaries on the NOAA property, as well as Stallion Branch, have not been assessed under Section 305(b) of the Clean Water Act. Section 305(b) requires each state to prepare a water quality assessment report of the current conditions of all the state's waters. The 305(b) reports and monitoring data are used to compile a list of impaired waters, referred to as the 305(d) list.

The NOAA property spans two subwatersheds: Lenah Run-Broad Run and Horsepen Run, both within the Potomac River-Broad Run Watershed. Horsepen Run is a 305(b) assessed water. The status for the Reporting Year 2010 of Horsepen Run is "Good". The status for the designated uses of aquatic life and wildlife is "Good", while fish consumption and recreation have not been

assessed. Broad Run, from its confluence with Horsepen Run to the Potomac River, is a 305(b) assessed water and is on the 303(d) list of impaired state waters. From the confluence with Horsepen Run to Waxpool Road, Broad Run is impaired for the designated uses of aquatic life and recreation due to Benthic Macroinvertebrates Bioassessments and Escherichia Coli. No State Total Maximum Daily Load requirements, which are limits on the amount of pollution that can be discharged into a waterbody, need to be met for these impairments.

No portion of the NOAA property is located within a watershed for a public water supply or in proximity to a water supply intake. No water supply wells are located within or near the NOAA property.

3.5.2 Environmental Consequences and Mitigation

3.5.2.1 Proposed Action

The Route 606 widening would disturb approximately 17.2 acres of soil and would create 1.9 acres of new impervious surface within the Horsepen Run watershed that drains across the NOAA property. The widening also would disturb approximately 5.1 acres of soil and would create 0.7 acres of new impervious surface within the Lenah Run-Broad Run watershed that drains off of the NOAA property. The Proposed Action includes three SWM facilities along Route 606, which would treat the water coming onto and off of the NOAA property from the road widening and from upstream sources. The SWM facility locations along Route 606 were determined by VDOT in coordination with the Metropolitan Washington Airports Authority (MWAA), NOAA, and private property owners.

The proposed access road and ASOS relocation would disturb approximately 8.6 acres of soil on the NOAA property and would create 0.9 acres of new impervious surface. A section of the existing north/south road would be removed and returned to vegetation, which would result in a reduction of 0.2 acres of impervious surface. Nutrient credits would be purchased to offset the water quality requirements brought on by the addition of impervious surface from the new access road.

A VSMP stormwater general permit would be required for construction.

Mitigation. ESC and SWM plans would be prepared in accordance with VDOT's most current *Road and Bridge Specifications* manual to manage erosion, sedimentation, and stormwater runoff at the site during construction. Construction activities would be monitored as stipulated by water quality permits.

In the event of accidental releases, the contractor would be required to immediately notify all appropriate local, state, and federal agencies and take immediate action to contain and remove contaminants in accordance with the project's approved pollution prevention plan.

3.5.2.2 No Action Alternative

No soils, wetlands, or waters would be disturbed by the No Action Alternative. Impervious surface would not increase due to the project. The benefits that additional SWM retention/detention would provide for managing the site's current water quality would not be realized as part of this project.

Mitigation. No mitigation would be required.

3.6 FLOODPLAINS

3.6.1 Environmental Setting

Executive Order (EO) 11988, Floodplain Management, requires that federal agencies locate facilities outside the 100-year or base floodplain, unless there is no practicable alternative location.

The NOAA property, based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, contains 31.3 acres of a 500-year floodplain (Shaded Zone X, **Figure 3-4**). The floodplain spans the southern boundary of the NOAA property and is associated with a tributary to Stallion Branch. There are no 100-year floodplains on the NOAA property.

3.6.2 Environmental Consequences and Mitigation

3.6.2.1 Proposed Action

The Proposed Action would not encroach upon the FEMA 500-year or 100-year floodplain. The Proposed Action would not impact floodplains or regulated floodways.

Mitigation. No mitigation would be required.

3.6.2.1 No Action Alternative

The No Action Alternative would not impact floodplains or regulated floodways.

Mitigation. No mitigation would be required.

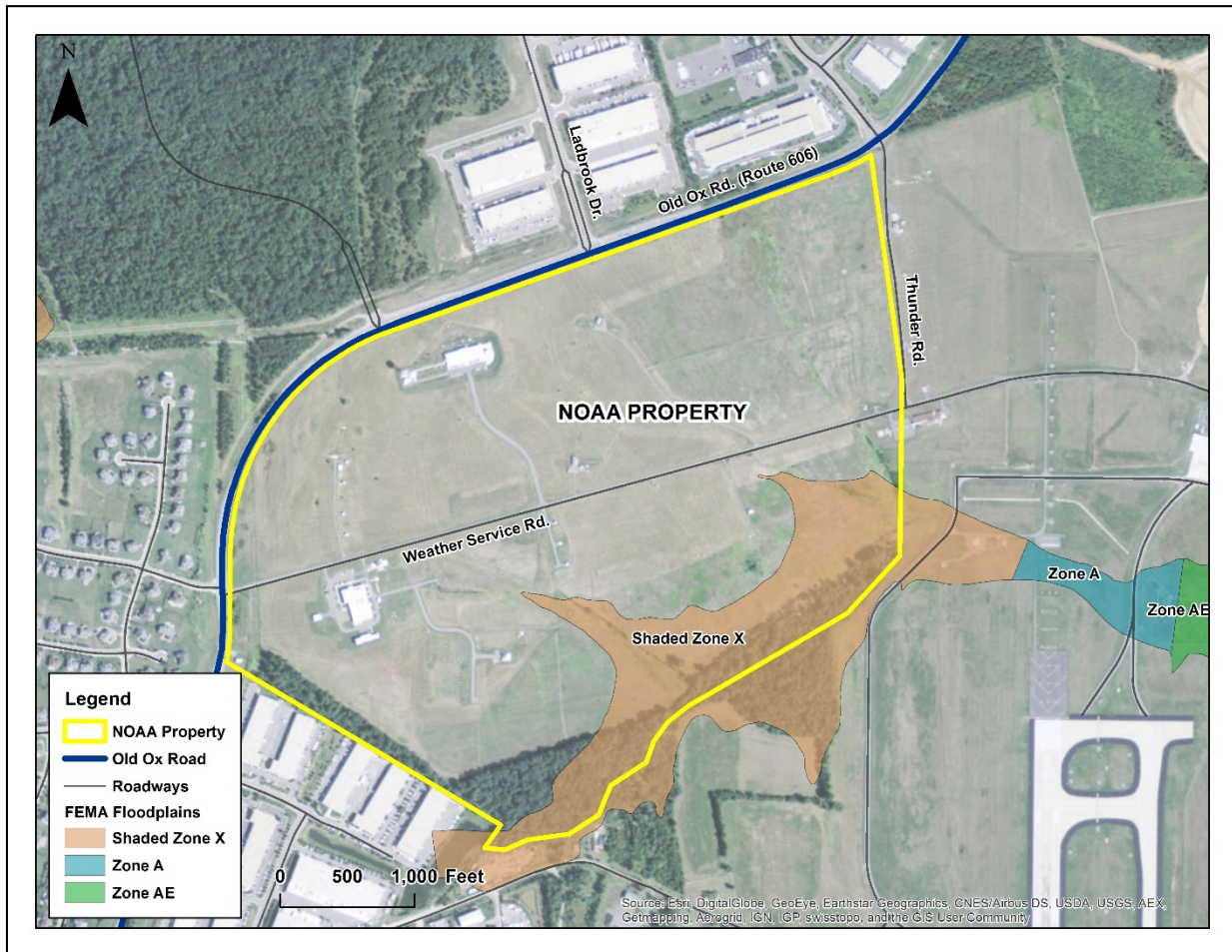


Figure 3-4: Floodplains near the NOAA property (FEMA)

3.7 COASTAL RESOURCES

3.7.1 Environmental Setting

Virginia established the Coastal Zone Management Program through an EO in 1986, which administers laws, regulations, and policies in accordance with the Coastal Zone Management Act of 1972. Loudoun County is not located within the Virginia Coastal Zone. No coastal resources are located within the NOAA property.

3.7.2 Environmental Consequences and Mitigation

Neither the Proposed Action nor the No Action Alternative would impact the Virginia Coastal Zone or coastal zone resources.

Mitigation. No mitigation would be required.

3.8 FARMLANDS

3.8.1 Environmental Setting

The Farmland Protection Policy Act is intended to minimize the impact federal programs have on the unnecessary conversion of farmland to nonagricultural uses.

Of the six soil types found within the NOAA property, three are Prime Farmland soils and one is a Statewide Important soil (**Figure 3-2**). The three Prime Farmland soils include Penn silt loam (73B), Ashburn silt loam (74B), and Dulles silt loam (78A). Bowmansville silt loam (6A) is the Statewide Important soil. A total of 153.1 acres of Prime Farmland soils and 0.3 acres of Statewide Important soils are on the NOAA property. However, none of these areas are in agricultural use, nor are they anticipated to be used for agriculture in the future.

3.8.2 Environmental Consequences and Mitigation

3.8.2.1 Proposed Action

The Proposed Action would impact 13.2 acres of Prime Farmland soils. However, these soils are located adjacent to a county-planned urbanized transportation corridor, zoned as PDGI, and committed to government research. Therefore, these soils are not considered contributors to potential prime farmlands. Filing Form AD-1006 with the NRCS would not be required.

Mitigation. No mitigation would be required.

3.8.2.2 No Action Alternative

There would be no impact to agricultural lands, prime farmlands, or farmlands of statewide importance on the NOAA property due to the No Action Alternative.

Mitigation. No mitigation would be required.

3.9 HAZARDOUS MATERIALS

3.9.1 Environmental Setting

The primary federal laws that regulate hazardous waste and materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). Additional federal laws include the Community Environmental Response Facilitation Act, the Clean Water Act, the Clean Air Act, the Safe Drinking Water Act, the Occupational Safety and Health Act, the Atomic Energy Act, the Toxic Substances Control Act, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Based on the EPA's EnviroMapper and DEQ's GIS Mapper (VEGIS), there are no underground storage tanks (USTs) reported on the NOAA property. A petroleum release (19930748) occurred at the intersection of Weather Service Road and Thunder Road on the NOAA property. This release was remediated and closed. The record was last edited in 2007. There are no RCRA, Superfund, or Brownfield properties located within the NOAA property.

Onsite, there are seven above ground storage tanks (ASTs) on the NOAA site. Three are located near the WFO, two are near the SFSC, and one is near the intersection of Weather Service Road and Thunder Road. These ASTs hold diesel fuel to run emergency engine generators. The WFO also uses small quantities of gear oil to lubricate the WSR-88D antenna pedestal and motor oil for operation of the emergency engine generator. Used oil is stored in a 55 gallon drum which is contained in a secondary system. A contractor picks up the waste-oil as needed.

An Environmental Data Resources, Inc (EDR) Radius Map report conducted for the 2007 EA for Relocation of National Oceanic and Atmospheric Administration National Weather Service Facilities by SRI International identified three facility listings within the applicable search radii of the three alternatives located on the NOAA Property. The 2007 EA finds that there is a lack of evidence of improper storage or releases from these facilities. Four USTs were listed as closed or removed and have no reports of improper storage or releases. One aboveground storage tank (AST) was listed as currently being used to store gasoline. The USTs and AST were confirmed to be clean. Field reconnaissance at the three alternative sites found no signs of potential contamination on the NOAA property.

The 2013 EA for the Route 606 Reconstruction Project identified no potential hazardous materials or hazardous substances within the project study area, which encompasses the entire NOAA property. A preliminary site assessment report, including an EDR search, was completed in 2012. The EDR report identifies two unmapped RCRIS-Non TSD Facilities on the NOAA property. One is a conditionally exempt small quantity generator and one is a verified non-generator- state regulated (VA7130000113 and VAD988227211). Neither listing is subject to corrective action.

3.9.2 Environmental Consequences and Mitigation

3.9.2.1 Proposed Action

Since there are no known hazardous material sites located in the proposed easement, the Proposed Action is not expected to impact any hazardous material sites. The identified ASTs on the NOAA property are outside of the proposed VDOT easements and would not be impacted by the Proposed Action. Solid waste and hazardous materials generated during construction activities would be removed from the work area and disposed of in accordance with applicable local, state, and federal laws, regulations, and policies. If previously unknown storage tanks or contamination are discovered during construction, the contractor would be required to implement proper removal, disposal, and/or treatment of contaminated substances.

Mitigation. A Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan would be prepared and approved prior to construction. All relevant federal, state, and local laws

pertaining to hazardous waste handling, storage, transportation and disposal, discharge of stormwater and dewatering water, and worker health and safety would be complied with during construction. All relevant federal, state, and local laws pertaining to storage of hazardous substances would be complied with during construction. If evidence of a petroleum release were to be discovered during implementation of the Project, it would be reported to DEQ.

3.9.2.2 No Action Alternative

The No Action Alternative would not impact hazardous material sites or disturb soils, and therefore would not lead to the discovery of hazardous materials or other forms of contamination.

Mitigation. No mitigation would be required.

3.10 TRANSPORTATION

3.10.1 Environmental Setting

There are three primary roads serving the NOAA property: Route 606, Weather Service Road, and Thunder Road. Route 606 is adjacent to the north boundary the NOAA property for approximately one mile between the intersections of Route 267 and Route 50, which are both major roads serving Northern Virginia. Route 606 is a desirable route for motorists from locations west, to IAD, the Dulles North Transit Center, and business centers located in the Ashburn, Sterling, and Herndon areas. Based on analyses in the 2013 EA for the Route 606 Reconstruction Project, Route 606 is currently over capacity and unsafe. Level of Service (LOS) results for the 2036 no-build conditions estimate that sections of Route 606 would operate at LOS E or F during peak periods.

Weather Service Road and Thunder Road are local roadways, providing ingress and egress for the NOAA property. Weather Service Road is the main road that runs east-west through the NOAA property. The roadway enters the property on the western side and continues east toward the Dulles Airport Fire Station (304). The total length of Weather Service Road is approximately 1.3 miles. Thunder Road runs along the eastern boundary of the property and connects with Weather Service Road just outside the southeast corner of the NOAA Property. In addition, there are small roadways on the NOAA property which connect the WFO, SFSC, test beds, and launch sites to Weather Service Road.

3.10.2 Environmental Consequences and Mitigation

3.10.2.1 Proposed Action

The Proposed Action would allow the widening of Route 606, alleviating traffic and congestion issues on the roadway. The widening would result in an improved LOS (A-D) for the 2036

build-out conditions. The proposed traffic signal at Ladbroke Drive, as well as turn lanes, would increase the safety of ingress/egress on to and off of the NOAA property.

Construction along Route 606 and on the NOAA property would cause temporary congestion on Route 606. The amount of construction-related traffic generated would vary greatly during construction activities. Construction is anticipated from spring 2016 until late 2017.

Mitigation. VDOT would create an MOT plan for the Route 606 Reconstruction Project which will manage traffic patterns during construction. VDOT would ensure that NOAA employees have access to the facilities 24 hours per day, 7 days per week during construction.

3.10.2.2 No Action Alternative

There would be no improvement to congestion or safety issues on Route 606 due to the No Action Alternative.

Mitigation. No mitigation would be required.

3.11 AIR QUALITY

3.11.1 Environmental Setting

Air quality is regulated under the Clean Air Act of 1970 and the Clean Air Act Amendments of 1977 and 1990. Under the Clean Air Act, the EPA set primary and secondary National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: particulate matter, nitrogen oxides, sulfur dioxide, lead, ozone, and carbon monoxide. Following the legislation, the Clean Air Act Amendments identified areas of the country as being in nonattainment of the NAAQS. States are required to submit State Implementation Plans (SIP) to bring these nonattainment areas into conformity with the NAAQS. For Virginia, the DEQ oversees the SIP.

According to EPA's online Green Book, Loudoun County is a non-attainment area for the 1997 8-hour Ozone standard and 2008 8-hour Ozone standard and a maintenance area for the 1997 fine particulate matter standard. It also is in a volatile organic compounds and nitrogen oxides Emissions Control Area. Loudoun County is in attainment of all other criteria pollutants.

The SFSC and WFO operate sensitive weather equipment that is exposed to the elements. Some of this equipment is sensitive to dust and airborne particles. Dust and airborne particles from construction operations also can damage and increase static electricity to the electronic equipment within the WFO and SFSC.

3.11.2 Environmental Consequences and Mitigation

3.11.2.1 Proposed Action

If the easement is granted as assumed under the Proposed Action, improvements to Route 606 would proceed per the 2013 Route 606 Reconstruction Project. The Route 606 Reconstruction Project is included in the National Capital Region's Transportation Improvement Program (TIP #6202) and 2011 Constrained Long Range Plan (Project ID VSL1b).

An Air Report was completed for the 2013 EA for the Route 606 Reconstruction Project. The report concludes that the design year forecasted traffic does not exceed the thresholds contained in VDOT's Project-Level Carbon Monoxide Air Quality Studies Agreement with the FHWA dated February 27, 2009, and therefore does not require a project-level carbon monoxide air quality analysis. The Clean Air Act and 40 Code of Federal Regulations (CFR) 93.116 requirements were met without a particulate matter hot-spot analysis since the project has been found not to be of air quality concern under 40 CFR 93.123(b)(1).

Since the EA, an access road and associated traffic signal have been added to the Route 606 design at Ladbroke Drive. The Engineer of Record does not expect impacts to the operation of Route 606 or Ladbroke Drive because of the conversion of the current "T" intersection to a full four-way intersection. Since traffic volumes are not expected to be affected by this design change, the addition of the access road and traffic signal is not expected to change the results of the 24-hour forecasted traffic from the Air Report conducted for the 2013 EA.

Construction-related air quality impacts such as emissions from diesel-powered equipment, burning of debris, fugitive dust, and the use of cutback asphalt would be temporary. However, dust and debris have the potential to damage equipment on the NOAA property.

Mitigation. The following DEQ air pollution regulations would be adhered to during construction: 9 Virginia Administrative Code (VAC) 5-130-10 et seq. (Open Burning restrictions); 9 VAC 5-45-780 et seq. (Cutback Asphalt restrictions); and 9 VAC 5-50-60 et seq. (Fugitive Dust precautions). Dust control measures would include minimizing exposed earth by stabilization practices as early as possible following ground disturbance. Stabilization practices would be in accordance with VDOT's most current *Road and Bridge Specifications* manual. Other methods would include utilizing dust suppressants for dust control where possible, covering open equipment used to transport loose material, and promptly removing spilled or tracked dirt or other materials from paved streets. Methods to control dust and airborne particles within the WFO and SFSC include installing and inspecting filters on the buildings and maintaining a positive air pressure within the buildings. VDOT would accommodate NOAA requests for HVAC maintenance during construction. Since there is some redundancy in WFO offices throughout the country, damage to equipment could impact operations at the Sterling location without impeding overall agency operations.

3.11.2.2 No Action Alternative

The No Action Alternative would not grant the easement request to VDOT. There would be no widening of Route 606 onto the NOAA property, which, over time, could lead to congestion and increased emissions from idling traffic.

Mitigation. No mitigation would be required.

3.12 NOISE

3.12.1 Environmental Setting

The EPA historically regulated federal noise control activities through its Office of Noise Abatement and Control. In 1981, the EPA transferred primary responsibility for regulating noise to state and local governments. Additional laws regulating noise include the federal Noise Control Act of 1972 and the Quiet Communities Act of 1978.

The FHWA regulates highway traffic noise impact analysis, abatement, coordination requirements, and reporting guidance in 23 CFR 772 and published guidance. These regulations state that a “Type I” traffic noise impact analysis is required when through travel lanes or interchange ramps are added. VDOT has an adopted State Noise Abatement Policy based upon FHWA noise regulations.

Noise sensitive receptors are locations or areas where fixed, developed sites of frequent human use occur. These include places such as churches, schools, or recreational areas where the presence of noise from an off-site source could have an impact on the use of the property. What is considered sensitive is informed by the area’s use category. The NOAA property and adjacent properties, as defined by FHWA noise regulations at 23 CFR 772.11, are Category E use (developed lands that are less sensitive to highway noise). For a Category E use, only outdoor uses are considered sensitive. To the west of the NOAA property across Route 606 is the Loudoun Valley Estates Subdivision, which is a Category B use (residential, see **Figure 3-5**).

A noise analysis was conducted for the 2013 EA for the Route 606 Reconstruction Project and no sensitive receptors were identified on the NOAA property within a 500-foot boundary from the Route 606 Reconstruction Project. The NOAA WFO is within 500 feet of Route 606, but since only outdoor uses are considered sensitive under Category E, it was not considered a sensitive receptor.

The noise abatement design study for the Route 606 Reconstruction Project identifies the residences within the Loudoun Valley Estates Subdivision to the west of the NOAA property as sensitive noise receptors.

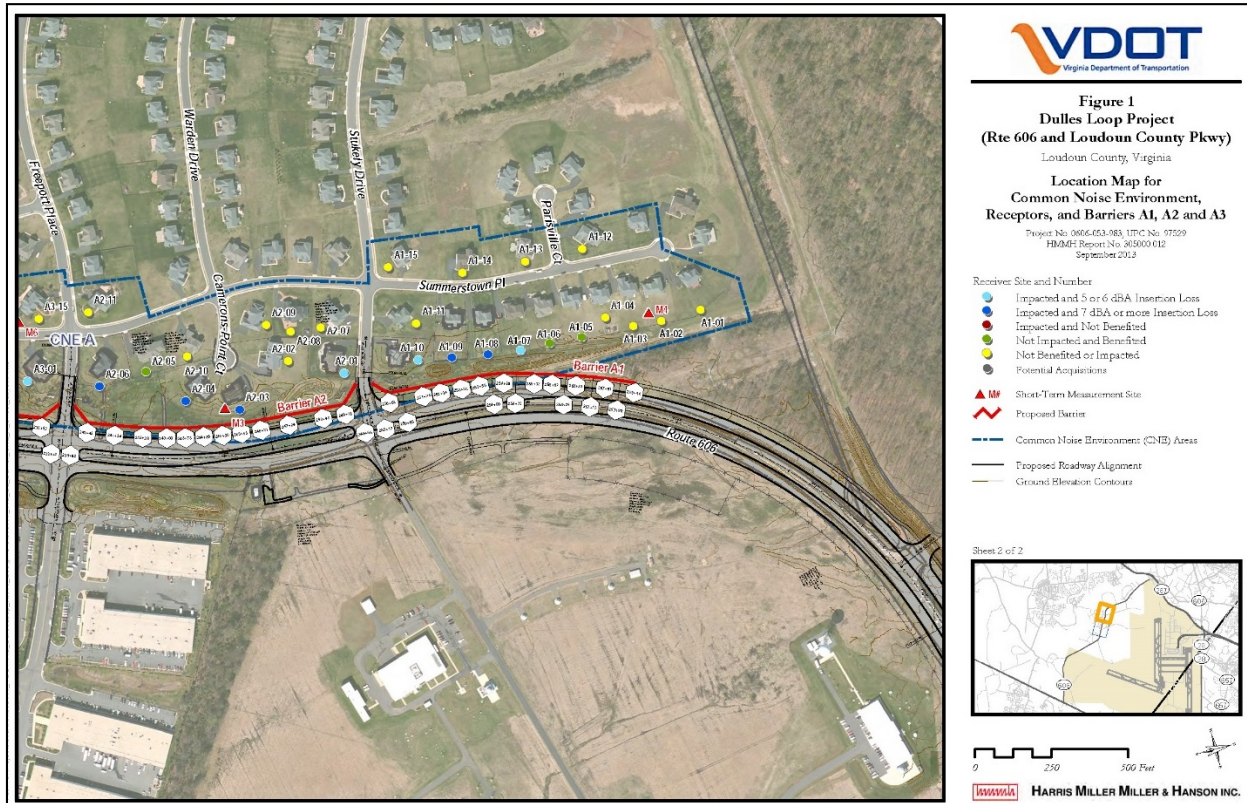


Figure 3-5: Sensitive Noise Receptors (VDOT 2013)

3.12.2 Environmental Consequences and Mitigation

3.12.2.1 Proposed Action

If the easement is granted as assumed under the Proposed Action, improvements to Route 606 would proceed per the 2013 Route 606 Reconstruction Project. According to the VDOT noise analysis, there are no sensitive noise-receptors on the NOAA property within a 500-foot buffer of the Route 606 Reconstruction Project; therefore, there are no noise impacts on the NOAA property due to the widening of Route 606. The design changes on Route 606 at the Ladbrook Drive intersection would not change the findings in the 2013 report. However, the WFO, which is within 500 feet of Route 606, may experience an increase in ambient noise levels. This increase in noise would potentially be noticeable on the WFO grounds, but the noise increase within the WFO building would likely be non-discernable due to the significant noise attenuation of the building. The noise increase could be discernable to WFO officials that must work outside when they launch upper air balloons, as well as NOAA officials setting up equipment at certain test bed areas. In addition, the construction of the access road would change traffic patterns, and thus ambient noise levels, across the NOAA property. Since these roads are small with relatively little traffic, these potential changes in noise are considered minimal.

The noise abatement design study for the 2013 EA identifies eight residences that would be impacted by the widening of Route 606 east of Freeport Place (**Figure 3-5**), meaning noise levels would approach or exceed the FHWA Noise Abatement Criteria threshold for Category B (66 a-

weighted decibels). Two noise barriers are proposed as part of a barrier system along Route 606 in this area and the barrier system is found to be feasible and reasonable, which means enough residences are receiving a five a-weighted decibel reduction in noise (a perceptible reduction in noise level) to warrant building the barrier.

Since the preparation of the 2013 EA, an access road and associated traffic signal have been added to the Route 606 design at Ladbrook Drive. The Engineer of Record does not expect impacts to the operation of Route 606 or Ladbrook Drive because of the conversion of the current “T” intersection to a full four-way intersection. Since traffic volumes are not expected to be affected by this design change, the addition of the access road and traffic signal is not expected to change the results of the Noise Report conducted for the 2013 EA.

Noise levels in the surrounding area would temporarily increase during construction of Route 606, the access road, the ASOS relocation, and the stormwater management ponds. This could increase ambient noise levels a perceptible amount at the NOAA property and adjacent properties to Route 606.

Mitigation. The noise abatement design study for the 2013 EA recommends that a noise barrier system to protect residences within the Loudoun Valley Estates subdivision is feasible and reasonable. VDOT coordinated with design engineers and the public on the specifications for the noise barrier system. The barrier was considered desirable by the public and, therefore, was recommended for construction.

Temporary noise impacts would be attenuated through implementation of noise limit specifications as detailed in VDOT’s most recent *Road and Bridge Specifications* manual. Specifications include performing operations such that exterior noise levels measured during noise-sensitive activity shall not exceed 80 decibels and not altering equipment so as to result in noise levels greater than those produced by the original equipment. The use of large construction equipment and earthmoving activity would be limited to the hours of 7 am to 9 pm daily.

3.12.2.2 No Action Alternative

The No-Action Alternative would not grant the easement request to VDOT. There would be no noise due to construction on the NOAA property. VDOT would widen Route 606 up to the NOAA property and consider new design options at the NOAA property. VDOT may need to reassess noise impacts due to the realignment of the Route 606 widening adjacent to the NOAA property.

Mitigation. No mitigation would be required for the NOAA property. VDOT may need to reassess mitigation along the Loudoun Valley Estates Subdivision due to design reconsideration at the NOAA property.

3.13 BIOLOGICAL RESOURCES

3.13.1 Environmental Setting

The federal Endangered Species Act (ESA) (16 USC 1536), provides for the conservation of endangered and threatened species of fish, wildlife, and plants and their associated habitats. The Virginia Department of Game and Inland Fisheries (VDGIF) is a consulting agency under the US Fish and Wildlife Coordination Act (48 Statute 401, as amended; 16 USC 661 et seq.) and provides environmental analysis of projects or permit applications to determine likely impacts upon wildlife resources and habitats. The Virginia Department of Conservation (DCR) maintains a statewide database for conservation planning and project review and provides protection and ecological management of sensitive species and resources under the Virginia Natural Area Preserves Act.

Aerial imagery depicts the majority of the site as mowed vegetation, with three main drainageways traversing the property. The majority of the property is open fields to allow safe zones for the test equipment and has 19.6 acres of deciduous forest, which can be found along the southern boundary of the property (**Figure 3-6**).

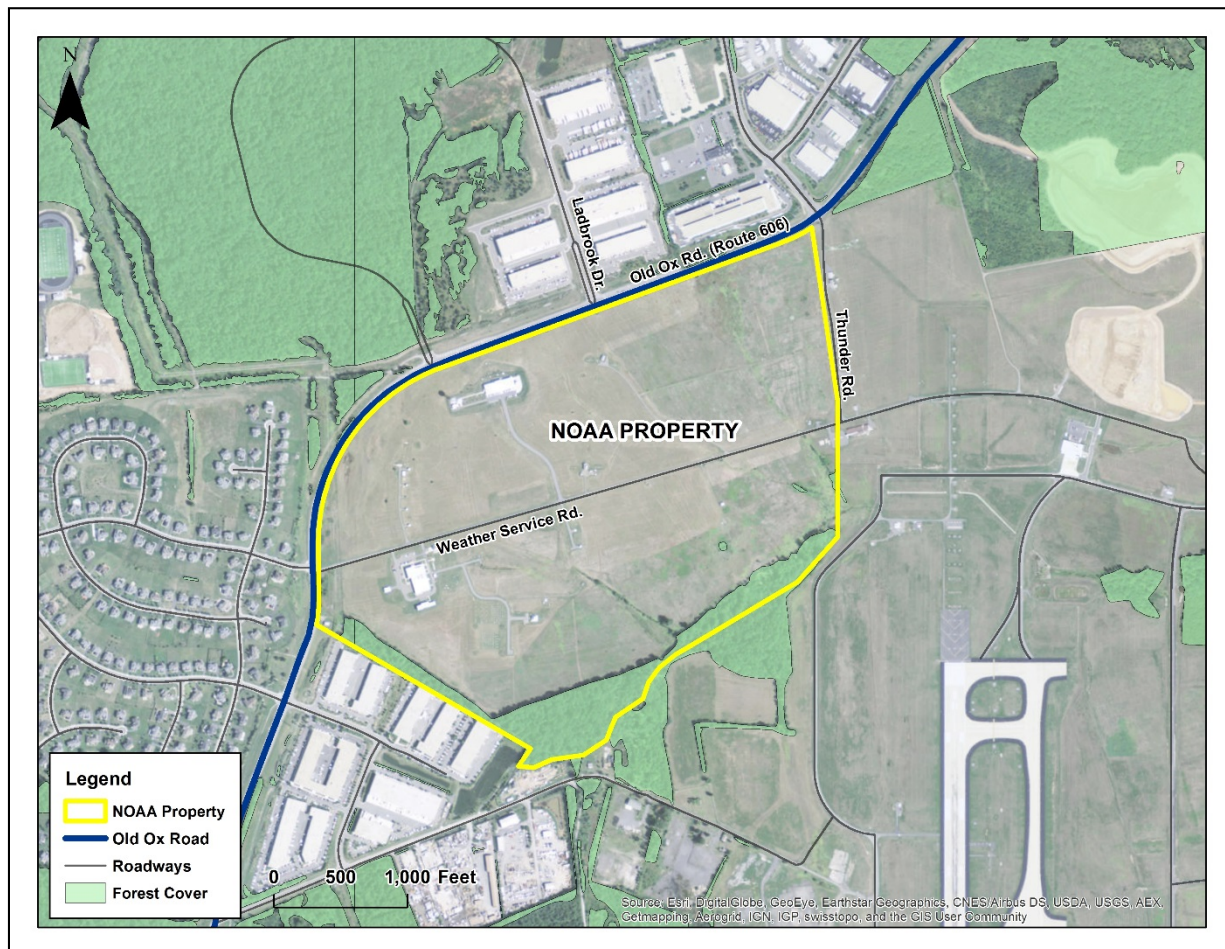


Figure 3-6: Forest Cover on the NOAA Property (Loudoun County)

A preliminary internet search of the VDGIF Fish and Wildlife Information System database identified 16 species of concern within two miles of the NOAA property (**Table 3-2**). However, none of these species are confirmed in the area through the VDGIF database. The only potential habitat found within two miles of the NOAA property is predicted Wood Turtle habitat along Broad Run, Cabin Branch, Horsepen Run, and Stallion Branch. The closest predicted habitat to the NOAA property is along Broad Run, approximately 4,000 feet north of Route 606.

Table 3-2. VDGIF-listed Species within Two Miles of the NOAA Property

Species (Common Name)	Species (Latin Name)	Status
Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>	Federal/State Endangered
Northern Long-Eared Bat	<i>Myotis septentrionalis</i>	Federal Threatened
Brook Floater	<i>Alasmidonta varicosa</i>	State Endangered
Wood Turtle	<i>Glyptemys insculpta</i>	State Threatened
Peregrine Falcon	<i>Falco peregrinus</i>	State Threatened
Upland Sandpiper	<i>Bartramia longicauda</i>	State Threatened
Loggerhead Shrike	<i>Lanius ludovicianus</i>	State Threatened
Henslow's Sparrow	<i>Ammodramus henslowii</i>	State Threatened
Green Floater	<i>Lasmigona subviridis</i>	State Threatened
Migrant Loggerhead Shrike	<i>Lanius ludovicianus migrans</i>	State Threatened
Regal Fritillary	<i>Speyeria idalia idalia</i>	Federal Species of Concern
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Federal Species of Concern
Dotted Skipper	<i>Hesperia attalus slossonae</i>	Federal Species of Concern
Yellow Lance	<i>Elliptio lanceolata</i>	Federal Species of Concern
Spotted Turtle	<i>Clemmys guttata</i>	Collection Concern
Timber Rattlesnake	<i>Crotalus horridus</i>	Collection Concern

The FWS's Information, Planning, and Conservation System identified the Northern Long-eared Bat as potentially impacted by this project. There are no federal critical habitats or FWS National Wildlife Refuges in the vicinity of the NOAA property.

The DCR Natural Heritage Data Explorer identifies diabase soils on the NOAA property along Thunder Road (**Figure 3-7**). According to DCR, diabase soils support occurrences of several global and state rare plant species, as listed in **Table 3-3**.

According to the Center for Conservation Biology mapping service, there are no Eagle nests, Osprey nests, or Colonial Waterbirds on the NOAA property.

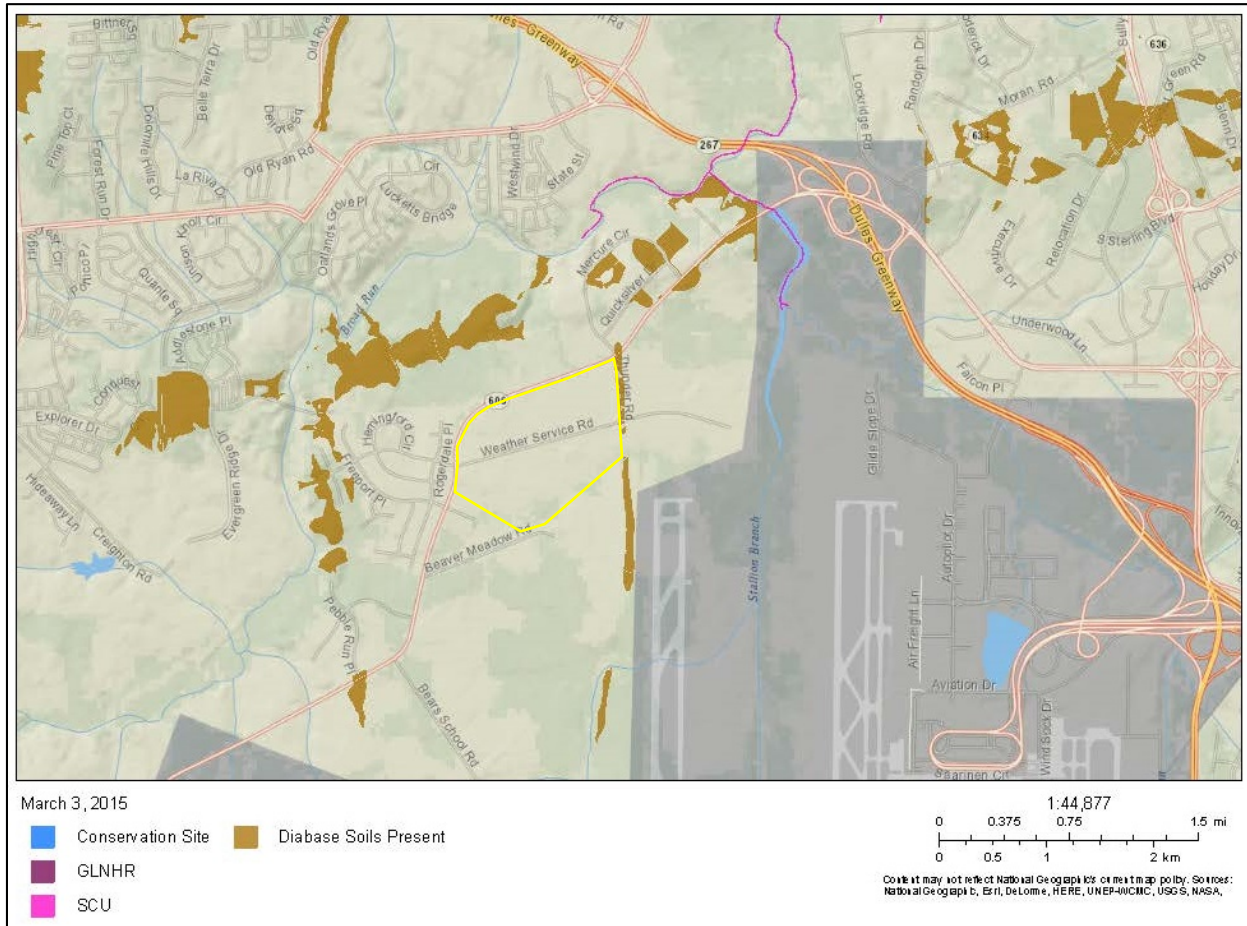


Figure 3-7: DCR Habitat Resources

Table 3-3. Rare Plants associated with Diabase Soils (DCR and NatureServe)

Species (Common Name)	Species (Latin Name)	Status
Earleaf False Foxglove	<i>Agalinis auriculata</i>	G3/S1/N3
Purple milkweed	<i>Asclepias purpurascens</i>	G5?/S2/NNR
American bluehearts	<i>Buchnera americana</i>	G5?/S1S2/N5?
Downy phlox	<i>Phlox pilosa</i>	G5/S1/N5?
Torrey's Mountain-mint	<i>Pycnanthemum torrei</i>	G2/S2/N2
Stiff goldenrod	<i>Solidago rigida</i> var. <i>rigida</i>	G5/S2/N3
Hairy hedgenettle	<i>Stachys arenicola</i>	G4?/S1/NNR

G= NatureServe Global Rank, *N*= NatureServe National Rank, *S*= NatureServe Subnational Rank; 1= critically imperiled, 2= imperiled, 3= vulnerable, 4= apparently secure, 5=secure, *NR*=unranked

3.13.2 Environmental Consequences and Mitigation

3.13.2.1 Proposed Action

In the 2013 EA for the Route 606 Reconstruction Project, VDOT concluded that the Route 606 study area does not contain suitable habitat to support protected species and made a “No Effect” determination under Section 7 on behalf of FHWA. USFWS concurred with this determination on May 24, 2013. As part of their JPA submission, VDOT’s contractor updated IPaC system in June 2015 which concluded an effect determination of “may affect” for the Northern Long-eared Bat. The Study Area for this Section 7 consultation included the entire NOAA property.

The Northern Long-eared Bat was listed on May 4, 2015 and could potentially be impacted by the Route 606 Reconstruction Project. In absence of conducting a bat survey, VDOT’s contractor, in accordance with comments from the USFWS in August 2015, is following a time-of-year restriction for tree clearing from April 15th to September 15th, of any year, to minimize potential effects to the Northern Long-eared Bat. If winter tree clearing is not feasible, a bat survey may be conducted in accordance with USFWS survey guidelines. The proposed improvements on the NOAA property are not expected to impact any forest resources and would have minimal impact to individual trees on the property. NOAA is currently coordinating with the USFWS on a “not likely to adversely affect” determination for the Northern Long-eared Bat (**Appendix B**).

The Proposed Action could disturb diabase soils located around the intersection of Thunder Road and Route 606. The land surrounding Thunder Road is currently maintained by MWAA and mowed. Due to the disturbed nature of Thunder Road and its surrounding land, no rare plant species impacts are expected by this action. Since none of these rare plants are federal or state-listed species, no additional surveys are warranted.

VDOT’s contractor for the Route 606 Reconstruction Project received a letter from DCR when filing the JPA. The DCR letter identified the Route 607 Stream Conservation Unit as located within the project site. This Stream Conservation Unit is outside of the NOAA property. DCR also identified the aforementioned rare plant species and diabase soils. DCR concluded that the widening of Route 606 would not affect any documented state-listed plants or insects (**Appendix B**).

DCR requested NOAA submit a project review form after release of the Draft EA. DCR identified the Broad Run –Route 607 Stream Conservation Unit as potentially impacted by the Project. DCR recommends implementation of and strict adherence to applicable state and local ESC/SWM laws and regulations to minimize adverse impacts to the aquatic ecosystem. DCR concluded that the widening of Route 606 would not affect any documented state-listed plants or insects (**Appendix B** and **D**).

Mitigation. Potential impacts to the Northern Long-eared Bat would be minimized through a time-of-year restriction for tree clearing from April 15 to September 15 of any given year. If winter tree clearing is not feasible, a bat survey may be conducted in accordance with USFWS survey guidelines and re-coordinated with USFWS to remove this restriction.

Potential impacts to the Broad Run –Route 607 Stream Conservation Unit would be minimized through the implementation of and strict adherence to applicable state and local ESC/SWM laws and regulations.

3.13.2.2 No Action Alternative

The No Action Alternative would not impact rare, threatened, or endangered species or their habitats.

Mitigation. No mitigation would be required.

3.14 CULTURAL RESOURCES

3.14.1 Environmental Setting

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to consult with the State Historic Preservation Office and consider the effects of a proposed federal action on historic properties in or eligible for inclusion in the National Register of Historic Places (NRHP).

Effects on historic properties are defined as impacts within an Area of Potential Effect (APE). The APE for historic architectural properties is based on the area where potential physical, visual, and atmospheric effects would occur if the easements were granted by NOAA. This area is generally within 1,000 feet of the potential easements. The APE for archeological resources is the potential easement boundaries.

A review of the Virginia Department of Historic Resources (DHR) Virginia Cultural Resource Information System (VCRIS) identifies six architectural resources within the APE (**Figure 3-8**):

- NWS Sterling Facility Laboratory (053-5253; DHR not evaluated)
- NWS Sterling Facility Building 19 (053-5254; DHR not evaluated)
- NWS Sterling Facility Building 18 (053-5255; DHR not eligible)
- NWS Sterling Facility Building 22 (053-5256; DHR not evaluated)
- NWS Sterling Facility Building 14 (053-5257; DHR not evaluated)
- NWS Sterling Facility Building 16 (053-5258; DHR not eligible)

The 2007 EA for Relocation of National Oceanic and Atmospheric Administration National Weather Service Facilities identified these six buildings. The EA states that a DHR Reconnaissance Level Survey of the structures recommends that the buildings are not eligible for listing in the National Register for Historic Places.

The 2013 EA for the Route 606 Reconstruction Project identified NWS Sterling Facility Building 18 (053-5255) and NWS Sterling Facility Building 16 (053-5258) within the APE. VDOT, on behalf of FHWA, recommended that DHR find them as not eligible for listing in the

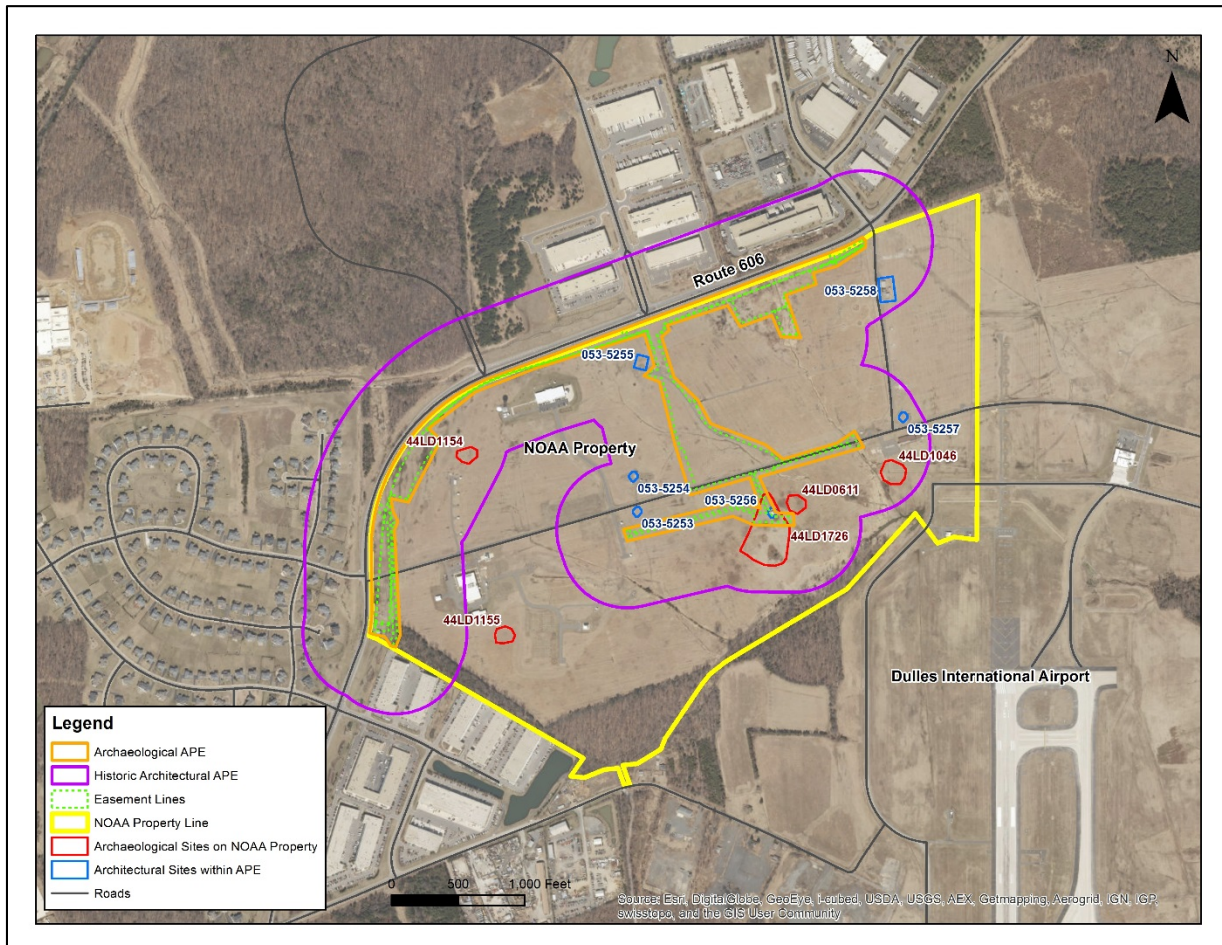


Figure 3-8: Cultural Resources near the NOAA Property (adapted from VCRIS)

National Register for Historic Places due to diminished integrity and significance. DHR concurred with the determination.

In a letter dated June 29, 2015, DHR states no additional architectural survey is warranted for this project (**Appendix C**).

VCRIS identifies five archaeological resources on the NOAA property, one within the APE (**Figure 3-8**). All of these sites have been determined not eligible by DHR staff:

- Lithic scatter, trash scatter (44LD0611; DHR not eligible)
- Lithic scatter (44LD1046; DHR not eligible)
- Agricultural field, lithic scatter (44LD1154; DHR not eligible)
- Lithic scatter (44LD1155; DHR not eligible)
- Single dwelling, lithic scatter (44LD1726; DHR not eligible)

The 2007 EA for Relocation of National Oceanic and Atmospheric Administration National Weather Service Facilities cites Phase I Archaeological Investigations conducted in 2005. The

2013 EA for the Route 606 Reconstruction Project also included Phase I Archaeological Investigations in 2012.

A Phase I Archaeological Investigation was conducted between July 8 and 29, 2015 in the location of the access road, SWM facilities, ASOS relocation, and culvert replacements. The investigation included a systematic pedestrian survey involving surface examination and shovel testing. The survey identified a site which consists of the remains of a late eighteenth- to twentieth-century domestic occupation, as well as a lightly manifested lithic scatter. The survey conducted on behalf of NOAA recommended this site to be potentially eligible for listing on the NRHP under Criterion D given the site had potential to provide important information regarding the Colony to Nation (1751-1789) and Early National (1790-1829) periods of Northern Virginia. This site is located to the south of the NOAA property, near the existing Quonset hut (Site 44LD1726, **Figure 3-9**). Since Site 44LD1726 was recommended as potentially eligible for the NRHP and the ASOS relocation had the potential to impact the site, a Phase II Archaeological Investigation was initiated.

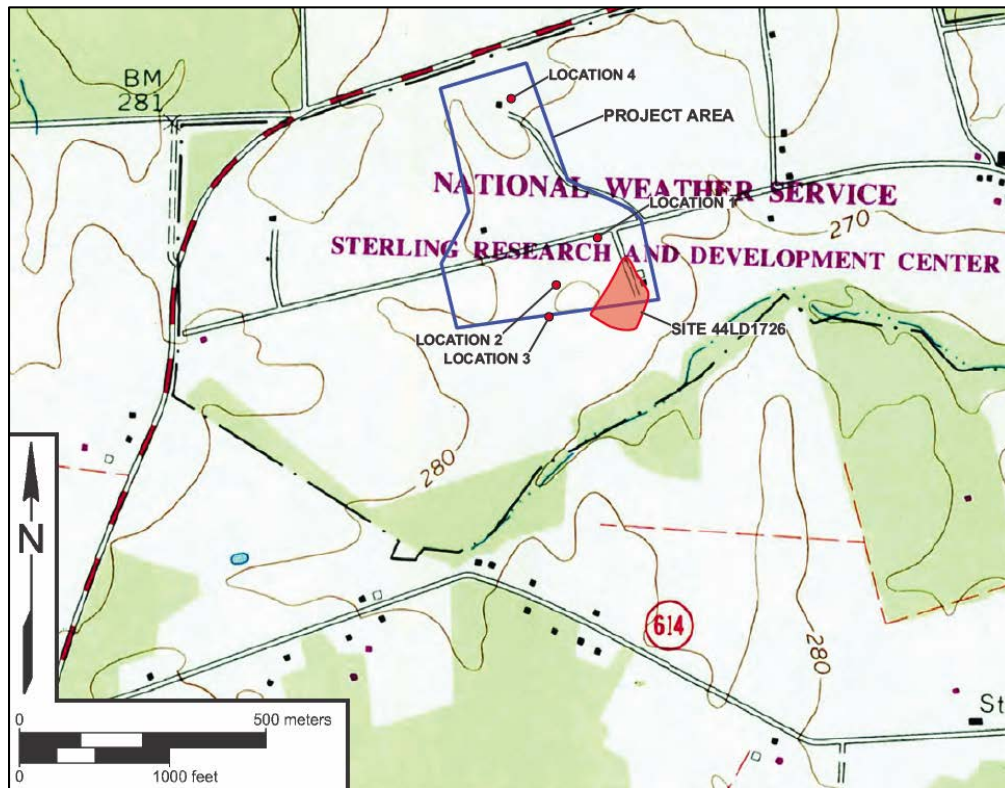


Figure 3-9: Phase I Archaeological Resources Identified (William and Mary Center for Archaeological Research 2015)

The Phase II Archaeological Investigation was conducted between November 4 and December 4, 2015 to delineate the boundaries and determine the eligibility of Site 44LD1726 for the NRHP under Criterion D. Additional systematic shovel testing was performed at smaller intervals on the site. The investigation recovered 605 artifacts including eighteenth- to twentieth-century architectural fragments, bottles, jars, domestic items, and miscellaneous metal artifacts.

Structural foundation remnants identified in Phase I were further investigated and found to be construction material that had been dumped. Based on the findings of the Phase II Investigation, the survey conducted on behalf of NOAA recommends Site 44LD1726 lacks sufficient integrity and research potential to provide important information regarding the Colony to Nation and New Dominion periods. Therefore, NOAA and the Phase II Investigation recommend that Site 44LD1726 is not eligible for listing on the NRHP. DHR concurred with NOAA's recommendation on April 11, 2016 (**Appendix C**).

3.14.2 Environmental Consequences and Mitigation

3.14.2.1 Proposed Action

VDOT received a determination of “No Effect” on historic properties within the APE for the Route 606 Reconstruction Project.

For the Proposed Action, NOAA received concurrence on a determination of “no historic properties or archaeological resources affected” by the Project on May 31, 2016 (**Appendix C**). The ASOS relocation would result in the demolition of NWS Sterling Facility Building 22 (053-5256).

Mitigation. Based on available information, there would be no effect to archaeological and architectural resources and thus no mitigation is required. If a previously unknown archeological site is uncovered during construction, activities that could affect the site would be suspended. The site would be assessed for significance and the DHR would be consulted to confirm the findings and determine the need for further consultation or mitigation.

3.14.2.2 No Action Alternative

There would be no impacts to archaeological or architectural resources due to the No Action Alternative.

Mitigation. No mitigation would be required.

3.15 VISUAL QUALITY

3.15.1 Environmental Setting

The Route 606 corridor has a typical visual setting one would expect of a developed urban corridor in Northern Virginia. Views to the roadway, as well as from it, consist of fragmented forest stands and fields interspersed with developed residential, commercial, and general industrial properties. Looking north from the NOAA property, there are fields, utility lines along the road, and commercial properties on the north side of Route 606. Looking west, the utility lines and fields continue, with a residential development west of Route 606. To the south, a tree line runs alongside a tributary to Stallion Branch.

3.15.2 Environmental Consequences and Mitigation

3.15.2.1 Proposed Action

If the easements are granted as assumed under the Proposed Action, improvements to Route 606 would proceed per the 2013 Route 606 Reconstruction Project. The Route 606 widening would occur along the existing roadway and would not introduce substantial new visual elements. The roadway would be located at-grade. The new SWM facilities would be visible from the road and NOAA property; however, they would be vegetated and not considered a substantial visual intrusion or uncharacteristic of the typical viewshed in the area.

The access road would be approximately 20 feet wide, be at-grade, and connect to an existing road on NOAA's property. It would not be considered a substantial visual intrusion or uncharacteristic of the typical viewshed in the area.

The ASOS relocation would move the ASOS facility further from Route 606. It would not be considered a substantial visual intrusion or uncharacteristic of the typical viewshed in the area.

Mitigation. No mitigation would be required.

3.15.2.2 No Action Alternative

The No-Action Alternative would not impact the current viewshed. Existing vegetation would not be impacted.

Mitigation. No mitigation would be required.

3.16 RECREATIONAL RESOURCES

3.16.1 Environmental Setting

The National Scenic Byway system is a collection of roads designated by the US Secretary of Transportation for their archaeological, cultural, historic, natural, recreational, or scenic qualities. There are no National Scenic Byways in Virginia. National Scenic and Historic Trails are managed by multiple federal agencies to designate trails that follow a historic trail, a route of travel of historic significance, or allow for maximum outdoor recreation potential and the conservation and enjoyment of the qualities of the areas they pass through. There are no National Scenic or Historic Trails within one mile of the NOAA property.

The National Wild and Scenic Rivers Act preserves and protects the aesthetic and recreational values on free-flowing rivers. The Virginia Scenic Rivers Act preserves and protects state-designated rivers for beauty and recreational, geologic, and cultural attributes. There are no National Wild and Scenic Rivers or Virginia Scenic Rivers near the NOAA property.

There are no parks or recreational resources within 0.25 miles of the NOAA property.

3.16.2 Environmental Consequences and Mitigation

The proposed Action and No Action Alternative would not impact any recreational resources.

Mitigation. No mitigation would be required.

3.17 SOCIOECONOMICS/ENVIRONMENTAL JUSTICE

3.17.1 Environmental Setting

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, requires federal agencies to address potential impacts to low-income and minority communities as a result of their proposed action. The NOAA property spans two Census Tracts: 6119 and 9801 (**Figure 3-10**).

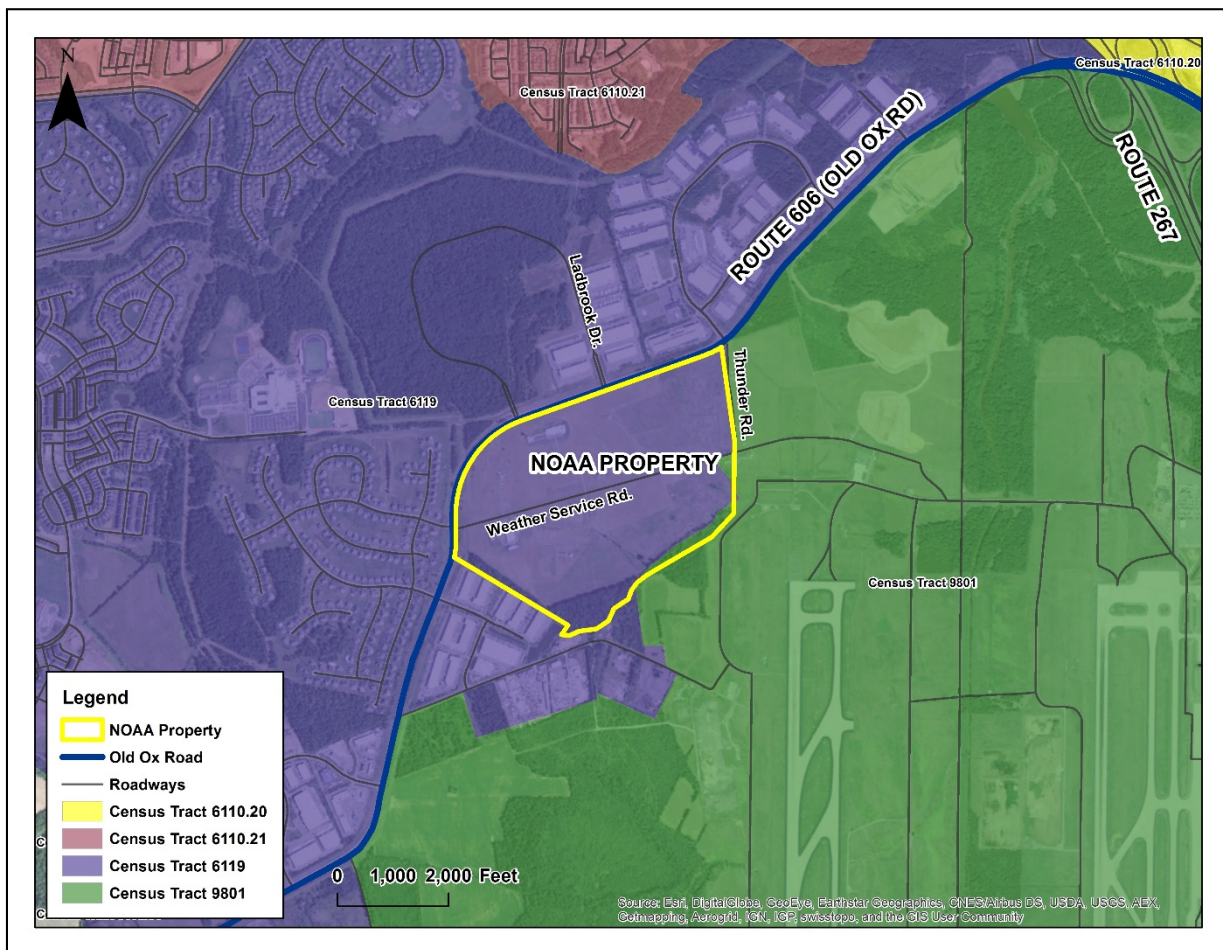


Figure 3-10: NOAA Property Census Tracts

The most recent available racial and ethnic characteristics data are from the 2010 Decennial Census, which is available online through the U.S. Census American Fact Finder (**Table 3-4**). There are no minority populations in Census Tract 9801, which has a total resident population of two individuals and consists mostly of IAD property. The percent minority population within Census Tract 6119 is 57.7%, which is higher than that of Virginia (31.4%) and Loudoun County (31.3%). Within Census Tract 6119, the percent population of Asian race and persons of Two or More Races is higher than that of both Loudoun County and Virginia. These values are bolded in **Table 3-4**. Therefore, there are potential minority populations within Census Tract 6119.

Table 3-4. Racial/Ethnic Data for Virginia, Loudoun County, and Census Tracts 6119 and 9801

	Virginia		Loudoun County		Census Tract 6119		Census Tract 9801	
Total Population	8,001,024	100%	312,311	100%	6,862	100%	2	100%
White	5,486,852	68.6%	214,471	68.7%	2,905	42.3%	2	100%
Black or African American	1,551,399	19.4%	22,710	7.3%	319	4.6%	0	0%
American Indian and Alaska Native	29,225	0.4%	914	0.3%	18	0.3%	0	0%
Asian	439,890	5.5%	46,033	14.7%	3,223	47.0%	0	0%
Native Hawaiian and Other Pacific	5,980	0.1%	184	0.1%	0	0.0%	0	0%
Some Other Race	254,278	3.2%	15,424	4.9%	93	1.4%	0	0%
Two or More Races	233,400	2.9%	12,575	4.0%	304	4.4%	0	0%
Minority Population*	2,514,172	31.4%	97,840	31.3%	3,957	57.7%	0	0%
Hispanic or Latino	631,825	7.9%	38,576	12.4%	303	4.4%	0	0%

*Minority population numbers do not include those who only identify themselves as Hispanic or Latino.

**bolded values for a Census Tract indicate they are higher than the values for Virginia and Loudoun County.

The most recent available income data are from the 2009-2013 American Community Survey, which is available online through the U.S. Census American Fact Finder (**Table 3-5**). A low-income person is defined as a person having an income at or below the federal poverty level as set forth by the Department of Health and Human Service guidelines. Income data for Census Tract 9801 is not available. In 2013, 11.3% of all people in Virginia lived below the poverty level, compared to 3.6% in Loudoun County, and 0.1% in Census Tract 6119. The median household income in Census Tract 6119 was \$198,680, while Virginia was \$63,907 and Loudoun County was \$122,238. Therefore, there are no low-income populations identified in Census Tracts 6119 or 9801.

Table 3-5. Income data for Virginia, Loudoun County, and Census Tract 6119

	Virginia	Loudoun County	Census Tract 6119
Median Household Income	\$63,907	\$122,238	\$198,680
People with Income Below Poverty Level in the last 12 Months	11.3%	3.6%	0.1%

3.17.2 Environmental Consequences and Mitigation

3.17.2.1 Proposed Action

According to the 2013 EA for the Route 606 Reconstruction Project, no minority or low-income populations have been identified within the Route 606 Reconstruction Project study area that would be adversely affected by the widening of Route 606.

The Proposed Action would be located on federal property, away from the surrounding communities. There would therefore be no impacts to minority or low-income populations.

Mitigation. No mitigation would be required.

3.17.2.2 No Action Alternative

The No Action Alternative would not impact minority or low-income populations.

Mitigation. No mitigation would be required.

3.18 UTILITIES AND ENERGY CONSUMPTION

3.18.1 Environmental Setting

Utilities on the NOAA property include overhead and underground telephone lines, power lines, gas lines, fiber optic, and a major electrical transmission line. The majority of the underground utility lines run along Route 606 or Weather Service Road. An aboveground three-phase electric power line operated by NOVEC is located adjacent to Route 606 from the WFO and east. There is also a Dominion Virginia high voltage line which runs along the western edge of the NOAA site. The NOAA property also has a series of old service hatches for utilities located near Ladbrook Drive and the NOAA fence line.

3.18.2 Environmental Consequences and Mitigation

3.18.2.1 Proposed Action

The Proposed Action would require the relocation of utility lines. The NOVEC power lines to the west of Route 606 would move east of the current Dominion Virginia high voltage lines, closer to NOAA’s fence line, and the utility easement would encroach further onto NOAA’s

property. Since these utility lines are lower in height than the existing Dominion high voltage lines within the same vicinity, this relocation should not impact existing weather balloon launches from the UAISs. The NOVEC power lines to the north of NOAA's property would be relocated off of NOAA property, providing additional weather balloon clearance that would not have been possible if the lines remained on the south side of the newly realigned Route 606, as the new road alignment brings the road considerably closer to the WFO UAIS. Two other NOVEC utility lines would be relocated/extended east of the new access road. A new water line also would run just north of one of the NOVEC utility lines. New underground utility lines would be installed from the nearby Autosonde/radomes to the proposed ASOS relocation site.

The utility relocations have the potential to impact weather balloon launches or radar operations during construction if the construction equipment is taller than the existing utility lines. Based on existing structures and the height of the radar beam, no structure or equipment can be over 334 feet MSL within the 1,200-foot radar buffer.

The new traffic signal would consume modest amount of electrical power. Construction equipment and vehicles would consume diesel fuel and gasoline during the construction period. Fuel would be saved due to decreased congestion along a widened Route 606.

Mitigation. VDOT would coordinate closely with NOAA to ensure construction equipment to move the utility lines will not impact radar operations or weather balloon launches. Design and construction would include measures to avoid impacts to the WSR-88D radar beam to ensure any work within a 1,200-foot radius of the radar tower would not extend above 334 MSL.

3.18.2.2 No Action Alternative

The No Action Alternative would not grant the easement request to VDOT. The NOVEC power line easement to the west of Route 606 and the NOAA property would not encroach further onto the NOAA property and the NOVEC power lines to the north would not be relocated off of the NOAA property to the north of Route 606. Fuel consumption along Route 606 would increase in the future due to increased congestion if the road cannot be widened.

Mitigation. No mitigation would be required.

3.19 INDIRECT EFFECTS AND CUMULATIVE IMPACTS

3.19.1 Environmental Setting

Indirect effects are defined by the Council on Environmental Quality (CEQ) as effects "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."

Development near the NOAA property has only recently begun to occur. Prior to the mid 1990's, Loudoun County was rural and consisted of moderate-sized farms and small rural settlements. Since the turn of the century, the area has undergone rapid suburbanization with the growth and expansion of the Washington D.C. metropolitan area. The Loudoun County Comprehensive Plan identifies most areas near the NOAA property as PDGI. The widening of Route 606 along the NOAA property would enhance the north-south connection within eastern Loudoun County and help improve access in to and out of IAD. As such, the widening of Route 606 at the NOAA property is consistent with the level and nature of planned growth anticipated under the Loudoun County Comprehensive Plan and, therefore, would not directly induce local development on its own. Since the widening of Route 606 at the NOAA property would not induce development, there are no indirect effects anticipated due to this project.

Cumulative impacts are defined by the CEQ as "...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (federal or non-federal) or person undertakes such actions" (40 CFR 1508.7). An action that has no direct or indirect impact on a resource has no cumulative effect on that resource. Only environmental resources directly or indirectly affected by either the Proposed Action or No Action Alternative could incur cumulative effects from the alternatives in combination with other actions. The cumulative effects of the Proposed Action and No Action Alternatives are analyzed in this section.

3.19.2 Environmental Consequences and Mitigation

3.19.2.1 Proposed Action

Loudoun County is rural in nature but has recently undergone rapid suburban and commercial growth. The NOAA property and its surroundings have been impacted by widespread conversion of land to commercial and air transport uses. This has resulted in direct impacts to land use, soils, water resources, water quality, farmlands, forest lands, and cultural resources. These past impacts could be considered moderate to severe. Specifically, the size of the NOAA property has decreased from 442.5 acres in 1942 to 230.4 acres in 2016. This has significantly reduced the amount of useable land by NOAA over time.

Granting the easement for widening Route 606 would further encroach onto NOAA land, but is consistent with current development that is taking place in Loudoun County. The widening of Route 606 would result in VDOT's use of about 22.3 acres of NOAA land, with 12.3 acres under VDOT permanent easement. Environmental resources including land use, soils, water resources, wetlands, water quality, transportation, and utilities would incur direct impacts from the proposed project. These direct impacts, along with proposed mitigation, would have a minor contribution to cumulative effects to these resources. Geology, floodplains, coastal resources, farmlands, hazardous materials, air quality, sensitive noise resources, biological resources, historic properties, visual quality, recreational resources, minority and low income populations, and energy consumption would not be directly affected and thus would not contribute to cumulative effects to these resources.

Based on a search of the Loudoun County – Countywide Transportation Plan (2010), Loudoun County Revised General Plan (Amended 2013), National Capital Region Transportation Improvement Plan, and National Capital Region Long-Range Transportation Plan, there are no reasonably foreseeable public or private projects within one mile of Route 606 along the NOAA property. There is a forested parcel of land adjacent to the northwest portion of the NOAA property. This parcel is zoned as PDGI. Although there is no planned or programmed development for this land, it is reasonably foreseeable that development could be done in the future. Potential development impacts could include soils, floodplains, water resources, water quality, and biological resources.

The ultimate condition for Route 606 from the Dulles Greenway to Loudoun County Parkway is a six-lane, limited-access, median divided roadway (Loudoun County CTP, 2010). However, this has not been programmed or planned. If, in the future, additional easements are required for the Route 606 ultimate condition or other projects, this would be considered a cumulative impact. Any additional work proposed on the NOAA property would require NEPA compliance, such as an EA, prepared by NOAA.

Therefore, the direct effects caused by granting the easements to VDOT would contribute to cumulative effects to environmental resources. However, the granting of the easement, when viewed in the context of impacts from other past, present, and reasonably foreseeable future actions, would not cause significant cumulative impacts.

3.19.2.2 No Action Alternative

The No Action Alternative would mean VDOT would not acquire NOAA land and the current conditions and operations on the NOAA property would remain unchanged. This alternative would not be consistent with the planned use or development of the area. However, this alternative would not contribute to cumulative effects on environmental resources.

4 PUBLIC INVOLVEMENT

NOAA prepared this EA in conformance with NOAA Administrative Order 216-6. The Draft EA was distributed to federal, state, and local government agencies for review. The public involvement component of the VDOT Route 606 Reconstruction Project has been considered sufficient public involvement for the purposes of this EA.

VDOT conducted agency consultation and public participation for the Route 606 Reconstruction Project through agency scoping, project development team meetings, and stakeholder meetings. Scoping letters describing the proposed action and requesting information were distributed to local, state, and federal agencies between February 10, 2012 and February 24, 2012. Regular meetings were held with the primary stakeholders of Loudoun County and MWAA. VDOT held a design public hearing on June 26, 2013, once the concept of Preferred Build Alternative had been advanced through preliminary design and analysis. The purpose of this meeting was to obtain comments from the communities and the agencies. A 30-day public review and comment period was held following the notice of availability of the EA.

This Final EA contains responses to all pertinent comments on the Draft EA received by NOAA during the comment period. As required by NEPA and NOAA Administrative Order 216-6, NOAA will not initiate the grant issuance until the environmental review process has been completed.

NOAA received comments on the Draft EA from the persons and organizations listed in **Table 4-1**. Copies of the comment letters are provided in **Appendix D**. Responses to the comments are provided in Section 5.1 below. Where appropriate, text and figures in the summary and the EA have been revised to be consistent with the responses contained in **Section 4.1**.

Table 4-1. Agencies Commenting on Draft EA

Commenting Agency	Letter Date
Elaine Yoch, DCR	April 1, 2016
S. René Hypes, DCR	April 13, 2016
Bettina Sullivan, DEQ, including comments from: <ul style="list-style-type: none"> - DEQ Northern Regional Office (NRO), Virginia Water Protection (VWP) Program - VMRC - DEQ Division of Air - DEQ Division of Land Protection and Revitalization (DLPR) - Virginia Department of Health (VDH) Office of Drinking Water (ODW) - VDOT Northern Virginia District Office - DEQ Office of Pollution Prevention (OPP) 	April 21, 2016
Matthew J. Thys, FAA	April 27, 2016

4.1 RESPONSES TO COMMENTS ON DRAFT EA

4.1.1 DCR

Comment: To minimize adverse impacts to the Broad Run – Route 607 Stream Conservation Unit (habitat of the yellow lampmussel) as a result of the proposed action, DCR recommends the implementation and strict adherence to applicable state and local erosion and sediment control/stormwater management laws and regulations.

Response: Adherence to applicable state and local erosion and sediment control/stormwater management laws and regulations is stipulated in **Sections 3.3.2.1 and 3.5.2.1** of the EA and in the VWPP permit attached in **Appendix A**. Information on DCR correspondence and recommendations were added to **Section 3.13**.

4.1.2 DEQ NRO VWP Program

Comment: The permittee must adhere to the requirements and permit conditions set forth in VWP Permit Number 15-0076, issued for this project.

Response: Adherence to DEQ permit requirements is stipulated in **Section 3.4.2.1 and 3.5.2.1** of the EA and the current VWPP permit is attached in **Appendix A**.

4.1.3 VMRC

Comment: No additional authorization will be required from VMRC for the work area identified on the NOAA property. The project must comply with VMRC Permit #15-0076.

Response: Adherence to VMRC permit requirements is stipulated in **Section 3.4.2.1** of the EA and the current VMRC permit is attached in **Appendix A**.

4.1.4 DEQ Division of Air

Comment: The project is located in a designated ozone non-attainment area and an emission control area for the control of oxides of nitrogen and volatile organic compounds, and VDOT should take all reasonable precautions to limit emissions of oxides of nitrogen and volatile organic compounds, principally by controlling or limiting the burning of fossil fuels.

Response: Adherence to air quality regulations is stipulated in **Section 3.11.2.1** of the EA.

Comment: The project manager is reminded that during the construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should any open burning or use of special incineration devices be employed in the disposal of land clearing debris during demolition and construction, the operation would be subject to the Open Burning Regulation 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100.

Response: Adherence to air quality regulations is stipulated in **Section 3.11.2.1** of the EA.

4.1.5 DEQ DLPR

Comment: 1) any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations; 2) the removal, relocation or closure, or installation/operation of any regulated petroleum storage tanks, aboveground storage tank (AST) or underground storage tank (UST), must be conducted in accordance with the requirements of the Virginia Tank Regulations 9 VAC 25-91-10 *et seq.* (AST) and/or 9 VAC 25-580-10 *et seq.* (UST); 3) if evidence of a petroleum release is discovered during implementation of this project, it must be reported to DEQ, as authorized by Virginia Code § 62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq.* **Response:** Adherence to hazardous material regulations is stipulated in **Section 3.9.2.1** of the EA.

4.1.6 DEQ VDH-ODW

Comment: The project is within the watershed of the Fairfax County Water Authority's Potomac River intake and potential impacts to public water distribution systems must be verified by the local utility. Best Management Practices should be employed on the project site including Erosion and Sedimentation Controls as well as Spill Prevention Controls and Countermeasures. There may be impacts to public drinking water sources as a result of this project unless the mitigation efforts are implemented.

Response: Adherence to applicable state and local ESC/SWM laws and regulations is stipulated in **Sections 3.3.2.1** and **3.5.2.1** of the EA and the VWPP permit in **Appendix A**. Creation of a Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan is stipulated in **Section 3.9.2.1** of the EA.

4.1.7 VDOT Northern Virginia District Office

Comment: The Route 606 widening project includes construction of SWM facilities to detain runoff from the roadway from flooding of NOAA property. Mitigation of existing flooding on the NOAA property from "off-site sources" has no relevance to the VDOT's easement request since the improved Route 606 will not exacerbate flooding that currently occurs on the NOAA facility

Response: The outfall for SWM 34 was designed to meet the SWM water quality and quantity needs for the project. However, consultation with NOAA provided evidence that the receiving channel for SWM 34 is considered inadequate to address flooding concerns on the NOAA property. To mitigate against discharging into an inadequate channel and to address NOAA's need for the Route 606 project to consider flooding and stormwater concerns on the property, additional quantity control measures were necessary. SWM 34B was designed to reduce the impacts to the inadequate receiving channel and to allow for the Route 606 widening project to utilize this area as an outfall

point. Therefore, this facility and its associated easement are considered a condition of the NOAA grant and part of the Route 606 Reconstruction Project.

Comment: The EA states the ASOS “generally *require(s)* a 500-foot radius of protection to ensure the equipment is not affected by outside variables.” The EA does not identify whether the 500-foot requirement is attained in the existing ASOS location under the existing condition

Response: The EA identifies the existing radius as being approximately 400 feet from Route 606 which is currently less than ideal. **Section 2.2** of the EA states, “*The two ASOS are used for testing and require a 500-foot protection radius. The ASOS are presently located approximately 400 feet from the existing Route 606 alignment, which is less than ideal. Further encroachment and increased traffic, due to the widening of Route 606, will further impact ASOS test operations and require the two ASOS to be relocated to an area where the 500-foot protection radius can be maintained.*”

Comment: The NOAA facility is served with access to Route 606 via Thunder Road and Weather Service Road. It is unclear why a new entrance at the Ladbrook Drive intersection is needed. The alignment of the new entrance road encroaches upon the 500-foot radius of protection for the ASOS location and adds impervious surface to the facility that appears to have an inadequate on-site drainage system.

Response: The new access road at the Ladbrook Drive intersection was a mutual agreement between VDOT and NOAA to address NOAA’s need for the Route 606 Reconstruction Project to provide safe and convenient access to the NOAA property. A new access road was seen as preferable over adding signals to Weather Service Road and Thunder Road. The ASOS would be relocated regardless of the new access road due to the further encroachment of Route 606 into the ASOS protection radius. The runoff from the new access road is conveyed through a different drainage system than the inadequate one discussed in the EA, which extends south from the proposed SWM facilities. The convergence of the system is near the southern extent of the NOAA property, near MWAA.

Comment: The EA discusses the environmental setting for noise and references FHWA’s noise regulations, 23 CFR 772, and VDOT’s State Noise Abatement Policy. The intent of these regulations and policy is to identify and mitigate for traffic noise impacts for certain categories of land use activity (defined by the FHWA’s Noise Abatement Criteria) at exterior noise-sensitive receptor locations of frequent human use; the NOAA facilities were not considered noise-sensitive receptors warranting noise abatement consideration. Without any traffic noise modeling to support the statement, the EA alleges “the WFO facility may experience an increase in ambient noise levels...[which] could be discernable to WFO officials that must work outside when they launch the upper air balloons, as well as NOAA officials setting up equipment at certain test bed areas.” Further, the environmental setting text in the EA focuses on traffic noise and there is no mention of the current aviation noise from nearby Washington Dulles International Airport experienced by officials.

Response: Section 3.12.2.1 of the EA states: *“This increase in noise would potentially be noticeable on the WFO grounds, but the noise increase within the WFO building would likely be non-discernable due to the significant noise attenuation of the building. The noise increase could be discernable to WFO officials that must work outside when they launch upper air balloons, as well as NOAA officials setting up equipment at certain test bed areas.”*

NOAA does not assert that there would be a noise impact as defined under FHWA noise regulations, but that there is a potential for a discernable noise increase. Officials would be subject to aviation noise, but this would not be considered part of constant background noise experience on the property.

Comment: The EA states on pages 3-16 and 3-19 that since the preparation of the 2013 EA an access road and traffic signal have been added to Route 606 at Ladbrook Drive and that the current “T” intersection is converted into a four-way intersection. VDOT does not have record of this addition and suggests to verify this design change

Response: The access road was a mutual agreement between NOAA and VDOT to provide safe access to the NOAA property.

4.1.8 DEQ OPP

Comment: Recommend several pollution prevention practices during construction of this project and during operation of the facility, including developing an effective Environmental Management System, considering environmental attributes when purchasing materials, considering contractors’ commitment to the environment when choosing contractors, and choosing sustainable materials and practices for infrastructure and design.

Response: Comment noted. VDOT has been informed of the aforementioned recommendations and will consider these practices during Project development, procurement, and construction.

4.1.9 FAA

Comment: No impacts of the action on IAD or adjacent FAA facilities; no comment.

Response: Comment acknowledged.

5 FINDINGS

Based on the analysis contained in this Draft EA, the Proposed Action could be implemented without causing significant environmental effects. There would be changes to the quality of the environment- there would be minor impacts to geology and soils, water resources, water quality, transportation, air quality, noise, and utilities. However, through the application of measures described in the EA and in **Table 5-1** below, these impacts would be mitigated to less than significant levels.

The No Action Alternative would not result in significant effects on environmental resources or NOAA’s present operations; however, the No Action Alternative also potentially would not alleviate present and future traffic conditions on Route 606.

A FONSI, as defined in Section 4.01k of NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act*, is warranted for the Proposed Action. There is the potential for resource impacts to change based upon the approval of final design. It is anticipated that these design changes would result in less than significant impacts to the NOAA property and the environment. If final design results in a significant number of impact changes, a supplemental EA will be filed.

Table 5-1. Summary of Anticipated Environmental Impacts for the Proposed Action

Resource	Anticipated Impacts	Proposed Mitigation
Land Use	<ul style="list-style-type: none"> • 22.3 acres of land • 12.3 acres permanent easement • 10.8 acres temporary easement • 1,228 feet new access road added • 3.3 acres SWM ponds added • Utility and ASOS relocations • Easements and design are compatible with existing and planned land uses 	<ul style="list-style-type: none"> • No mitigation required
Geology and Soils	<ul style="list-style-type: none"> • 22.3 acres of disturbed soil • 2.6 acres of impervious surface added • 2.6 acres of vegetated soils converted • 13.2 acres Prime Farmland soil impact • 9.1 acres hydric soil impact 	<ul style="list-style-type: none"> • BMP and ESC plan • VDOT approved SWM plan • Adherence to DEQ permit requirements
Water Resources	<ul style="list-style-type: none"> • 18 linear feet permanent stream impact • 7 linear feet temporary stream impact • 3.2 acres of permanent wetland impact • 0.3 acres of temporary wetland impact • Reestablishment of flow regimes 	<ul style="list-style-type: none"> • Adherence to USACE, DEQ, and VMRC permit conditions • Utilization of regulatory agency approved mitigation banks to offset impacts • VDOT will adhere to policies and procedures for

Resource	Anticipated Impacts	Proposed Mitigation
	<ul style="list-style-type: none"> • Mitigation of existing and potential flooding • Collection/detention of stormwater 	<ul style="list-style-type: none"> • maintenance SWM facilities and roadside ditches
Water Quality	<ul style="list-style-type: none"> • 17.2 acres disturbed soil; 1.9 acres of new impervious surface in Horsepen Run watershed • 5.1 acres disturbed soil; 0.7 acres of new impervious surface in Lenah Run-Broad Run watershed • No public water supplies or water supply wells impacted 	<ul style="list-style-type: none"> • VDOT approved ESC and SWM plans • Adherence to stipulations in water quality permits • VDOT will adhere to policies and procedures for maintenance of SWM facilities and roadside ditches
Floodplains	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Coastal Resources	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Farmlands	<ul style="list-style-type: none"> • 13.2 acres Prime Farmland soil impact • These soils not considered to be contributors to potential prime or statewide important farmlands 	<ul style="list-style-type: none"> • No mitigation required
Hazardous Materials	<ul style="list-style-type: none"> • No expected impact 	<ul style="list-style-type: none"> • Creation of a Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan • Follow all local, state, and federal laws related to hazardous substances
Transportation	<ul style="list-style-type: none"> • Temporary congestion along Route 606 during construction • Improved LOS for 2036 build-conditions along Route 606 • Improved safety/access to NOAA property 	<ul style="list-style-type: none"> • Creation/implementation of Maintenance of Traffic plan • Ensure NOAA employees have access to facilities 24/7 during construction
Air Quality	<ul style="list-style-type: none"> • Temporary construction impacts • Potential damage from fugitive dust to NOAA equipment during construction 	<ul style="list-style-type: none"> • Adherence to DEQ air pollution regulations during project construction. • Stabilization practices in accordance with VDOT <i>Road and Bridge Specifications</i> manual • VDOT to provide a contractor for additional maintenance and inspection of the WFO

Resource	Anticipated Impacts	Proposed Mitigation
		HVAC system during construction
Noise	<ul style="list-style-type: none"> • Temporary construction noise impacts • No sensitive noise receptors on NOAA property • Potential minimal increase to ambient noise on site 	<ul style="list-style-type: none"> • Noise attenuation following VDOT <i>Road and Bridge Specifications</i> manual • Limit use of large construction equipment and earthmoving activity to the hours of 7 am to 9 pm
Biological Resources	<ul style="list-style-type: none"> • Section 7 – “No Effect” on threatened or endangered species • Not likely to impact federal or state listed species • No impact to any documented state-listed plants or insects • Potential impacts to Broad Run – Route 607 Stream Conservation Unit 	<ul style="list-style-type: none"> • Tree clearing restriction from April 15th to September 15th of any year to minimize potential effects to Northern Long-eared Bat • If not feasible, bat survey may be conducted following USFWS guidelines • Implementation of and strict adherence to applicable state and local ESC/SWM laws and regulations
Cultural Resources	<ul style="list-style-type: none"> • “No Effect” 	<ul style="list-style-type: none"> • No mitigation required • Suspension of activities and consultation with DHR if new resources are identified during construction
Visual Quality	<ul style="list-style-type: none"> • No new substantial visual elements or intrusions would be introduced 	<ul style="list-style-type: none"> • No mitigation required
Recreational Resources	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Socioeconomic/ Environmental Justice	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Utilities and Energy Consumption	<ul style="list-style-type: none"> • Utility relocations required • Negligible energy consumption and savings • Potential impact to radar operations during utility relocations 	<ul style="list-style-type: none"> • Close VDOT/NOAA coordination during construction to ensure equipment to move the utility lines will not impact radar operations and that there are no planned power/data interruptions
Cumulative Impacts	<ul style="list-style-type: none"> • Minor impacts 	<ul style="list-style-type: none"> • No mitigation required

6 LIST OF PREPARERS

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APPENDIX A.

JOINT PERMIT APPLICATION CORRESPONDENCE



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

February 25, 2015

Virginia Department of Transportation
1409 E Broad St
Richmond, VA 23227
tal.wingate@vdot.virginia.gov

RE: Coverage under the VPDES Construction General Permit (VAR10)
General Permit No. VAR10G591
VDOT-15-063
VDOT Leesburg - 0606-053-983, C501, B686, B687, D672 97529
Transportation
Loudoun

Dear Permittee:

DEQ has reviewed your Registration Statement received on February 06, 2015 and determined that the proposed land-disturbing activity is covered under the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10). The effective date of your coverage under this general permit is July 1, 2014 or the date of this letter, whichever is later.

A copy of the general permit can be obtained from DEQ's webpage at the following location:

<http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/CGP2014.pdf>.

The general permit contains the applicable Stormwater Pollution Prevention Plan (SWPPP) requirements and other conditions of coverage. Please print the general permit and read it carefully as you will be responsible for compliance with all permit conditions.

DEQ staff has determined that the proposed land-disturbing activity will discharge to a surface water identified as impaired or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for (i) sediment or a sediment-related parameter or (ii) nutrients. Therefore, the following general permit (Part I.B.4) and SWPPP requirements (Part II.A.5) must be implemented for the land-disturbing activity:

- Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site;
- Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

The general permit will expire on June 30, 2019. The conditions of the general permit require that you submit a new registration statement at least 90 days prior to that date if you wish to continue coverage under the general permit, unless permission for a later date has been granted by the Board. Permission cannot be granted to submit the registration statement after the expiration date of the general permit.

If you have any questions about this permit, please contact the DEQ Office of Stormwater Management at ConstructionGP@deq.virginia.gov.

Sincerely,

A handwritten signature in black ink, reading "Frederick K. Cunningham". The signature is written in a cursive style with a large, prominent initial "F".

Frederick K. Cunningham, Director
Office of Water Permits



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

General Permit No.: VAR10

Effective Date: July 1, 2014

Expiration Date: June 30, 2019

**GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION
ACTIVITIES**

**AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER MANAGEMENT
PROGRAM AND THE VIRGINIA STORMWATER MANAGEMENT ACT**

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the Virginia Stormwater Management Act and regulations adopted pursuant thereto, operators of construction activities are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except those specifically named in State Water Control Board regulations that prohibit such discharges.

The authorized discharge shall be in accordance with this cover page, Part I - Discharge Authorization and Special Conditions, Part II - Stormwater Pollution Prevention Plan, and Part III - Conditions Applicable to All VPDES Permits as set forth herein.

PART I**DISCHARGE AUTHORIZATION AND SPECIAL CONDITIONS****A. Coverage under this general permit.**

1. During the period beginning with the date of coverage under this general permit and lasting until the general permit's expiration date, the operator is authorized to discharge stormwater from construction activities.
2. This general permit also authorizes stormwater discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) located on-site or off-site provided that:
 - a. The support activity is directly related to the construction activity that is required to have general permit coverage for discharges of stormwater from construction activities;
 - b. The support activity is not a commercial operation, nor does it serve multiple unrelated construction activities by different operators;
 - c. The support activity does not operate beyond the completion of the last construction activity it supports;
 - d. The support activity is identified in the registration statement at the time of general permit coverage;
 - e. Appropriate control measures are identified in a stormwater pollution prevention plan and implemented to address the discharges from the support activity areas; and
 - f. All applicable state, federal, and local approvals are obtained for the support activity.

B. Limitations on coverage.

1. Post-construction discharges. This general permit does not authorize stormwater discharges that originate from the site after construction activities have been completed and the site, including any support activity sites covered under the general permit registration, has undergone final stabilization. Post-construction industrial stormwater discharges may need to be covered by a separate VPDES permit.
2. Discharges mixed with nonstormwater. This general permit does not authorize discharges that are mixed with sources of nonstormwater, other than those discharges that are identified in Part I E (Authorized nonstormwater discharges) and are in compliance with this general permit.
3. Discharges covered by another state permit. This general permit does not authorize discharges of stormwater from construction activities that have been covered under an individual permit or required to obtain coverage under an alternative general permit.
4. Impaired waters and TMDL limitation. Discharges of stormwater from construction activities to surface waters identified as impaired in the 2012 § 305(b)/303(d) Water Quality Assessment Integrated Report or for which a TMDL wasteload allocation has been established and approved prior to the term of this general permit for (i) sediment or a sediment-related parameter (i.e., total suspended solids or turbidity) or (ii) nutrients (i.e., nitrogen or phosphorus) are not eligible for coverage under this general permit unless the operator develops, implements, and maintains a SWPPP that minimizes the pollutants of concern and, when applicable, is consistent with the assumptions and requirements of the approved TMDL wasteload allocations. In addition, the operator shall implement the following items:

- a. The impaired water(s), approved TMDL(s), and pollutant(s) of concern, when applicable, shall be identified in the SWPPP;
 - b. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site;
 - c. Nutrients shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events; and
 - d. The applicable SWPPP inspection requirements specified in Part II F 2 shall be amended as follows:
 - (1) Inspections shall be conducted at a frequency of (i) at least once every four business days or (ii) at least once every five business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
 - (2) Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls discharging to surface waters identified as impaired or for which a TMDL wasteload allocation has been established and approved prior to the term of this general permit.
5. Exceptional waters limitation. Discharges of stormwater from construction activities not previously covered under the general permit issued in 2009 to exceptional waters identified in 9VAC25-260-30 A 3 c are not eligible for coverage under this general permit unless the operator implements the following:
- a. The exceptional water(s) shall be identified in the SWPPP;
 - b. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site;
 - c. Nutrients shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events; and
 - d. The applicable SWPPP inspection requirements specified in Part II F 2 shall be amended as follows:
 - (1) Inspections shall be conducted at a frequency of (i) at least once every four business days or (ii) at least once every five business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
 - (2) Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls discharging to exceptional waters.
6. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- C. Commingled discharges. Discharges authorized by this general permit may be commingled with other sources of stormwater that are not required to be covered under a state permit, so long as the commingled discharge is in compliance with this general permit. Discharges authorized by a separate state or VPDES permit may be commingled with discharges authorized by this general permit so long as all such discharges comply with all applicable state and VPDES permit requirements.

D. Prohibition of nonstormwater discharges. Except as provided in Parts I A 2, I C, and I E, all discharges covered by this general permit shall be composed entirely of stormwater associated with construction activities. All other discharges including the following are prohibited:

1. Wastewater from washout of concrete;
2. Wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
4. Oils, toxic substances, or hazardous substances from spills or other releases; and
5. Soaps, solvents, or detergents used in equipment and vehicle washing.

E. Authorized nonstormwater discharges. The following nonstormwater discharges from construction activities are authorized by this general permit when discharged in compliance with this general permit:

1. Discharges from firefighting activities;
2. Fire hydrant flushings;
3. Waters used to wash vehicles or equipment where soaps, solvents, or detergents have not been used and the wash water has been filtered, settled, or similarly treated prior to discharge;
4. Water used to control dust that has been filtered, settled, or similarly treated prior to discharge;
5. Potable water sources, including uncontaminated waterline flushings;
6. Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled, or similarly treated prior to discharge;
7. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing); where soaps, solvents, or detergents have not been used; and where the wash water has been filtered, settled, or similarly treated prior to discharge;
8. Uncontaminated air conditioning or compressor condensate;
9. Uncontaminated ground water or spring water;
10. Foundation or footing drains where flows are not contaminated with process materials such as solvents;
11. Uncontaminated excavation dewatering, including dewatering of trenches and excavations that have been filtered, settled, or similarly treated prior to discharge; and
12. Landscape irrigation.

F. Termination of general permit coverage.

1. The operator of the construction activity shall submit a notice of termination in accordance with 9VAC25-880-60 to the VSMP authority after one or more of the following conditions have been met:

- a. Necessary permanent control measures included in the SWPPP for the site are in place and functioning effectively and final stabilization has been achieved on all portions of the site for which the operator is responsible. When applicable, long term responsibility and maintenance requirements shall be recorded in the local land records prior to the submission of a notice of termination;
 - b. Another operator has assumed control over all areas of the site that have not been finally stabilized and obtained coverage for the ongoing discharge;
 - c. Coverage under an alternative VPDES or state permit has been obtained; or
 - d. For residential construction only, temporary soil stabilization has been completed and the residence has been transferred to the homeowner.
2. The notice of termination should be submitted no later than 30 days after one of the above conditions in subdivision 1 of this subsection is met. Authorization to discharge terminates at midnight on the date that the notice of termination is submitted for the conditions set forth in subdivisions 1 b through 1 d of this subsection. Termination of authorizations to discharge for the conditions set forth in subdivision 1 a of this subsection shall be effective upon notification from the department that the provisions of subdivision 1 a of this subsection have been met or 60 days after submittal of the notice of termination, whichever occurs first.
 3. The notice of termination shall be signed in accordance with Part III K of this general permit.

G. Water quality protection.

1. The operator must select, install, implement and maintain control measures as identified in the SWPPP at the construction site that minimize pollutants in the discharge as necessary to ensure that the operator's discharge does not cause or contribute to an excursion above any applicable water quality standard.
2. If it is determined by the department that the operator's discharges are causing, have reasonable potential to cause, or are contributing to an excursion above any applicable water quality standard, the department, in consultation with the VSMP authority, may take appropriate enforcement action and require the operator to:
 - a. Modify or implement additional control measures in accordance with Part II B to adequately address the identified water quality concerns;
 - b. Submit valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is attaining water quality standards; or
 - c. Submit an individual permit application in accordance with 9VAC25-870-410 B 3.

All written responses required under this chapter must include a signed certification consistent with Part III K.

PART II

STORMWATER POLLUTION PREVENTION PLAN

A stormwater pollution prevention plan (SWPPP) shall be developed prior to the submission of a registration statement and implemented for the construction activity, including any support activity, covered by this general permit. SWPPPs shall be prepared in accordance with good engineering practices. Construction activities that are part of a larger common plan of development or sale and disturb less than one acre may utilize a SWPPP template provided by the department and need not provide a separate stormwater management plan if one has been prepared and implemented for the larger common plan of development or sale.

The SWPPP requirements of this general permit may be fulfilled by incorporating by reference other plans such as a spill prevention control and countermeasure (SPCC) plan developed for the site under § 311 of the federal Clean Water Act or best management practices (BMP) programs otherwise required for the facility provided that the incorporated plan meets or exceeds the SWPPP requirements of Part II A. All plans incorporated by reference into the SWPPP become enforceable under this general permit. If a plan incorporated by reference does not contain all of the required elements of the SWPPP, the operator must develop the missing elements and include them in the SWPPP.

Any operator that was authorized to discharge under the general permit issued in 2009, and that intends to continue coverage under this general permit, shall update its stormwater pollution prevention plan to comply with the requirements of this general permit no later than 60 days after the date of coverage under this general permit.

A. Stormwater pollution prevention plan contents. The SWPPP shall include the following items:

1. General information.

- a. A signed copy of the registration statement, if required, for coverage under the general VPDES permit for discharges of stormwater from construction activities;
- b. Upon receipt, a copy of the notice of coverage under the general VPDES permit for discharges of stormwater from construction activities (i.e., notice of coverage letter);
- c. Upon receipt, a copy of the general VPDES permit for discharges of stormwater from construction activities;
- d. A narrative description of the nature of the construction activity, including the function of the project (e.g., low density residential, shopping mall, highway, etc.);
- e. A legible site plan identifying:
 - (1) Directions of stormwater flow and approximate slopes anticipated after major grading activities;
 - (2) Limits of land disturbance including steep slopes and natural buffers around surface waters that will not be disturbed;
 - (3) Locations of major structural and nonstructural control measures, including sediment basins and traps, perimeter dikes, sediment barriers, and other measures intended to filter, settle, or similarly treat sediment, that will be installed between disturbed areas and the undisturbed vegetated areas in order to increase sediment removal and maximize stormwater infiltration;
 - (4) Locations of surface waters;

- (5) Locations where concentrated stormwater is discharged;
- (6) Locations of support activities, when applicable and when required by the VSMP authority, including but not limited to (i) areas where equipment and vehicle washing, wheel wash water, and other wash water is to occur; (ii) storage areas for chemicals such as acids, fuels, fertilizers, and other lawn care chemicals; (iii) concrete wash out areas; (iv) vehicle fueling and maintenance areas; (v) sanitary waste facilities, including those temporarily placed on the construction site; and (vi) construction waste storage; and
- (7) When applicable, the location of the on-site rain gauge or the methodology established in consultation with the VSMP authority used to identify measurable storm events for inspection purposes.

2. Erosion and sediment control plan.

- a. An erosion and sediment control plan approved by the VESCP authority as authorized under the Erosion and Sediment Control Regulations (9VAC25-840), an "agreement in lieu of a plan" as defined in 9VAC25-840-10 from the VESCP authority, or an erosion and sediment control plan prepared in accordance with annual standards and specifications approved by the department. Any operator proposing a new stormwater discharge from construction activities that is not required to obtain erosion and sediment control plan approval from a VESCP authority or does not adopt department-approved annual standards and specifications shall submit the erosion and sediment control plan to the department for review and approval.
- b. All erosion and sediment control plans shall include a statement describing the maintenance responsibilities required for the erosion and sediment controls used.
- c. A properly implemented approved erosion and sediment control plan, "agreement in lieu of a plan," or erosion and sediment control plan prepared in accordance with department-approved annual standards and specifications, adequately:
 - (1) Controls the volume and velocity of stormwater runoff within the site to minimize soil erosion;
 - (2) Controls stormwater discharges, including peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;
 - (3) Minimizes the amount of soil exposed during the construction activity;
 - (4) Minimizes the disturbance of steep slopes;
 - (5) Minimizes sediment discharges from the site in a manner that addresses (i) the amount, frequency, intensity, and duration of precipitation; (ii) the nature of resulting stormwater runoff; and (iii) soil characteristics, including the range of soil particle sizes present on the site;
 - (6) Provides and maintains natural buffers around surface waters, directs stormwater to vegetated areas to increase sediment removal, and maximizes stormwater infiltration, unless infeasible;
 - (7) Minimizes soil compaction and, unless infeasible, preserves topsoil;
 - (8) Ensures that stabilization of disturbed areas will be initiated immediately whenever any clearing, grading, excavating, or other land-disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 days; and

- (9) Utilizes outlet structures that withdraw stormwater from the surface (i.e., above the permanent pool or wet storage water surface elevation), unless infeasible, when discharging from sediment basins or sediment traps.
3. Stormwater management plan.
 - a. New construction activities. A stormwater management plan approved by the VSMP authority as authorized under the Virginia Stormwater Management Program (VSMP) Regulation (9VAC25-870), or an "agreement in lieu of a stormwater management plan" as defined in 9VAC25-870-10 from the VSMP authority, or a stormwater management plan prepared in accordance with annual standards and specifications approved by the department. Any operator proposing a new stormwater discharge from construction activities that is not required to obtain stormwater management plan approval from a VSMP authority or does not adopt department-approved annual standards and specifications shall submit the stormwater management plan to the department for review and approval.
 - b. Existing construction activities. Any operator that was authorized to discharge under the general permit issued in 2009, and that intends to continue coverage under this general permit, shall ensure compliance with the requirements of 9VAC25-870-93 through 9VAC25-870-99 of the VSMP Regulation, including but not limited to the water quality and quantity requirements. The SWPPP shall include a description of, and all necessary calculations supporting, all post-construction stormwater management measures that will be installed prior to the completion of the construction process to control pollutants in stormwater discharges after construction operations have been completed. Structural measures should be placed on upland soils to the degree possible. Such measures must be designed and installed in accordance with applicable VESCP authority, VSMP authority, state, and federal requirements, and any necessary permits must be obtained.
 4. Pollution prevention plan. A pollution prevention plan that addresses potential pollutant-generating activities that may reasonably be expected to affect the quality of stormwater discharges from the construction activity, including any support activity. The pollution prevention plan shall:
 - a. Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater;
 - b. Describe the location where the potential pollutant-generating activities will occur, or if identified on the site plan, reference the site plan;
 - c. Identify all nonstormwater discharges, as authorized in Part I E of this general permit, that are or will be commingled with stormwater discharges from the construction activity, including any applicable support activity;
 - d. Identify the person responsible for implementing the pollution prevention practice or practices for each pollutant-generating activity (if other than the person listed as the qualified personnel);
 - e. Describe the pollution prevention practices and procedures that will be implemented to:
 - (1) Prevent and respond to leaks, spills, and other releases including (i) procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases; and (ii) procedures for reporting leaks, spills, and other releases in accordance with Part III G;
 - (2) Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities (e.g., providing secondary containment such as spill berms, decks, spill containment pallets, providing cover where appropriate, and having spill kits readily available);

- (3) Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including the clean-up of stucco, paint, form release oils, and curing compounds (e.g., providing (i) cover (e.g., plastic sheeting or temporary roofs) to prevent contact with stormwater; (ii) collection and proper disposal in a manner to prevent contact with stormwater; and (iii) a similarly effective means designed to prevent discharge of these pollutants);
 - (4) Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing (e.g., locating activities away from surface waters and stormwater inlets or conveyance and directing wash waters to sediment basins or traps, using filtration devices such as filter bags or sand filters, or using similarly effective controls);
 - (5) Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters;
 - (6) Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including (i) building products such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures; (ii) pesticides, herbicides, insecticides, fertilizers, and landscape materials; and (iii) construction and domestic wastes such as packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, Styrofoam, concrete, and other trash or building materials;
 - (7) Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, and sanitary wastes; and
 - (8) Address any other discharge from the potential pollutant-generating activities not addressed above; and
- f. Describe procedures for providing pollution prevention awareness of all applicable wastes, including any wash water, disposal practices, and applicable disposal locations of such wastes, to personnel in order to comply with the conditions of this general permit. The operator shall implement the procedures described in the SWPPP.
5. SWPPP requirements for discharges to impaired waters, surface waters with an applicable TMDL wasteload allocation established and approved prior to the term of this general permit, and exceptional waters. The SWPPP shall:
- a. Identify the impaired water(s), approved TMDL(s), pollutant(s) of concern, and exceptional waters identified in 9VAC25-260-30 A 3 c, when applicable;
 - b. Provide clear direction that:
 - (1) Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site;
 - (2) Nutrients shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events; and
 - (3) A modified inspection schedule shall be implemented in accordance with Part I B 4 or Part I B 5.

6. Qualified personnel. The name, phone number, and qualifications of the qualified personnel conducting inspections required by this general permit.
 7. Delegation of authority. The individuals or positions with delegated authority, in accordance with Part III K, to sign inspection reports or modify the SWPPP.
 8. SWPPP signature. The SWPPP shall be signed and dated in accordance with Part III K.
- B. SWPPP amendments, modification, and updates.
1. The operator shall amend the SWPPP whenever there is a change in the design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to surface waters and that has not been previously addressed in the SWPPP.
 2. The SWPPP must be amended if, during inspections or investigations by the operator's qualified personnel, or by local, state, or federal officials, it is determined that the existing control measures are ineffective in minimizing pollutants in discharges from the construction activity. Revisions to the SWPPP shall include additional or modified control measures designed and implemented to correct problems identified. If approval by the VESCP authority, VSMP authority, or department is necessary for the control measure, revisions to the SWPPP shall be completed no later than seven calendar days following approval. Implementation of these additional or modified control measures must be accomplished as described in Part II G.
 3. The SWPPP must clearly identify the contractor(s) that will implement and maintain each control measure identified in the SWPPP. The SWPPP shall be amended to identify any new contractor that will implement and maintain a control measure.
 4. The operator shall update the SWPPP no later than seven days following any modification to its implementation. All modifications or updates to the SWPPP shall be noted and shall include the following items:
 - a. A record of dates when:
 - (1) Major grading activities occur;
 - (2) Construction activities temporarily or permanently cease on a portion of the site; and
 - (3) Stabilization measures are initiated;
 - b. Documentation of replaced or modified controls where periodic inspections or other information have indicated that the controls have been used inappropriately or incorrectly and where modified as soon as possible;
 - c. Areas that have reached final stabilization and where no further SWPPP or inspection requirements apply;
 - d. All properties that are no longer under the legal control of the operator and the dates on which the operator no longer had legal control over each property;
 - e. The date of any prohibited discharges, the discharge volume released, and what actions were taken to minimize the impact of the release;
 - f. Measures taken to prevent the reoccurrence of any prohibited discharge; and
 - g. Measures taken to address any evidence identified as a result of an inspection required under Part II F.

5. Amendments, modifications, or updates to the SWPPP shall be signed in accordance with Part III K.

C. Public Notification. Upon commencement of land disturbance, the operator shall post conspicuously a copy of the notice of coverage letter near the main entrance of the construction activity. For linear projects, the operator shall post the notice of coverage letter at a publicly accessible location near an active part of the construction project (e.g., where a pipeline crosses a public road). The operator shall maintain the posted information until termination of general permit coverage as specified in Part I F.

D. SWPPP availability.

1. Operators with day-to-day operational control over SWPPP implementation shall have a copy of the SWPPP available at a central location on-site for use by those identified as having responsibilities under the SWPPP whenever they are on the construction site.
2. The operator shall make the SWPPP and all amendments, modifications, and updates available upon request to the department, the VSMP authority, the EPA, the VESCP authority, local government officials, or the operator of a municipal separate storm sewer system receiving discharges from the construction activity. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the SWPPP's location must be posted near the main entrance of the construction site.
3. The operator shall make the SWPPP available for public review in an electronic format or in hard copy. Information for public access to the SWPPP shall be posted and maintained in accordance with Part II C. If not provided electronically, public access to the SWPPP may be arranged upon request at a time and at a publicly accessible location convenient to the operator or his designee but shall be no less than once per month and shall be during normal business hours. Information not required to be contained within the SWPPP by this general permit is not required to be released.

E. SWPPP implementation. The operator shall implement the SWPPP and subsequent amendments, modifications, and updates from commencement of land disturbance until termination of general permit coverage as specified in Part I F.

1. All control measures must be properly maintained in effective operating condition in accordance with good engineering practices and, where applicable, manufacturer specifications. If a site inspection required by Part II F identifies a control measure that is not operating effectively, corrective action(s) shall be completed as soon as practicable, but no later than seven days after discovery or a longer period as established by the VSMP authority, to maintain the continued effectiveness of the control measures.
2. If site inspections required by Part II F identify an existing control measure that needs to be modified or if an additional control measure is necessary for any reason, implementation shall be completed prior to the next anticipated measurable storm event. If implementation prior to the next anticipated measurable storm event is impracticable, then alternative control measures shall be implemented as soon as practicable, but no later than seven days after discovery or a longer period as established by the VSMP authority.

F. SWPPP Inspections.

1. Personnel responsible for on-site and off-site inspections. Inspections required by this general permit shall be conducted by the qualified personnel identified by the operator in the SWPPP. The operator is responsible for insuring that the qualified personnel conduct the inspection.
2. Inspection schedule.
 - a. Inspections shall be conducted at a frequency of:

- (1) At least once every five business days; or
 - (2) At least once every 10 business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted no later than the next business day.
- b. Where areas have been temporarily stabilized or land-disturbing activities will be suspended due to continuous frozen ground conditions and stormwater discharges are unlikely, the inspection frequency may be reduced to once per month. If weather conditions (such as above freezing temperatures or rain or snow events) make discharges likely, the operator shall immediately resume the regular inspection frequency.
- c. Representative inspections may be utilized for utility line installation, pipeline construction, or other similar linear construction activities provided that:
- (1) Temporary or permanent soil stabilization has been installed and vehicle access may compromise the temporary or permanent soil stabilization and potentially cause additional land disturbance increasing the potential for erosion;
 - (2) Inspections occur on the same frequency as other construction activities;
 - (3) Control measures are inspected along the construction site 0.25 miles above and below each access point (i.e., where a roadway, undisturbed right-of-way, or other similar feature intersects the construction activity and access does not compromise temporary or permanent soil stabilization); and
 - (4) Inspection locations are provided in the report required by Part II F.
3. Inspection requirements.
- a. As part of the inspection, the qualified personnel shall:
- (1) Record the date and time of the inspection and when applicable the date and rainfall amount of the last measurable storm event;
 - (2) Record the information and a description of any discharges occurring at the time of the inspection;
 - (3) Record any land-disturbing activities that have occurred outside of the approved erosion and sediment control plan;
 - (4) Inspect the following for installation in accordance with the approved erosion and sediment control plan, identification of any maintenance needs, and evaluation of effectiveness in minimizing sediment discharge, including whether the control has been inappropriately or incorrectly used:
 - (a) All perimeter erosion and sediment controls, such as silt fence;
 - (b) Soil stockpiles, when applicable, and borrow areas for stabilization or sediment trapping measures;
 - (c) Completed earthen structures, such as dams, dikes, ditches, and diversions for stabilization;

- (d) Cut and fill slopes;
 - (e) Sediment basins and traps, sediment barriers, and other measures installed to control sediment discharge from stormwater;
 - (f) Temporary or permanent channel, flume, or other slope drain structures installed to convey concentrated runoff down cut and fill slopes;
 - (g) Storm inlets that have been made operational to ensure that sediment laden stormwater does not enter without first being filtered or similarly treated; and
 - (h) Construction vehicle access routes that intersect or access paved roads for minimizing sediment tracking;
- (5) Inspect areas that have reached final grade or that will remain dormant for more than 14 days for initiation of stabilization activities;
- (6) Inspect areas that have reached final grade or that will remain dormant for more than 14 days for completion of stabilization activities within seven days of reaching grade or stopping work;
- (7) Inspect for evidence that the approved erosion and sediment control plan, "agreement in lieu of a plan," or erosion and sediment control plan prepared in accordance with department-approved annual standards and specifications has not been properly implemented. This includes but is not limited to:
- (a) Concentrated flows of stormwater in conveyances such as rills, rivulets or channels that have not been filtered, settled, or similarly treated prior to discharge, or evidence thereof;
 - (b) Sediment laden or turbid flows of stormwater that have not been filtered or settled to remove sediments prior to discharge;
 - (c) Sediment deposition in areas that drain to unprotected stormwater inlets or catch basins that discharge to surface waters. Inlets and catch basins with failing sediments controls due to improper installation, lack of maintenance, or inadequate design are considered unprotected;
 - (d) Sediment deposition on any property (including public and private streets) outside of the construction activity covered by this general permit;
 - (e) Required stabilization has not been initiated or completed on portions of the site;
 - (f) Sediment basins without adequate wet or dry storage volume or sediment basins that allow the discharge of stormwater from below the surface of the wet storage portion of the basin;
 - (g) Sediment traps without adequate wet or dry storage or sediment traps that allow the discharge of stormwater from below the surface of the wet storage portion of the trap; and
 - (h) Land disturbance outside of the approved area to be disturbed;
- (8) Inspect pollutant generating activities identified in the pollution prevention plan for the proper implementation, maintenance and effectiveness of the procedures and practices;
- (9) Identify any pollutant generating activities not identified in the pollution prevention plan; and

(10) Identify and document the presence of any evidence of the discharge of pollutants prohibited by this general permit.

4. Inspection report. Each inspection report shall include the following items:
 - a. The date and time of the inspection and when applicable, the date and rainfall amount of the last measurable storm event;
 - b. Summarized findings of the inspection;
 - c. The location(s) of prohibited discharges;
 - d. The location(s) of control measures that require maintenance;
 - e. The location(s) of control measures that failed to operate as designed or proved inadequate or inappropriate for a particular location;
 - f. The location(s) where any evidence identified under Part II F 3 a (7) exists;
 - g. The location(s) where any additional control measure is needed that did not exist at the time of inspection;
 - h. A list of corrective actions required (including any changes to the SWPPP that are necessary) as a result of the inspection or to maintain permit compliance;
 - i. Documentation of any corrective actions required from a previous inspection that have not been implemented; and
 - j. The date and signature of the qualified personnel and the operator or its duly authorized representative.

The inspection report and any actions taken in accordance with Part II must be retained by the operator as part of the SWPPP for at least three years from the date that general permit coverage expires or is terminated. The inspection report shall identify any incidents of noncompliance. Where an inspection report does not identify any incidents of noncompliance, the report shall contain a certification that the construction activity is in compliance with the SWPPP and this general permit. The report shall be signed in accordance with Part III K of this general permit.

G. Corrective actions.

1. The operator shall implement the corrective action(s) identified as a result of an inspection as soon as practicable but no later than seven days after discovery or a longer period as approved by the VSMP authority. If approval of a corrective action by a regulatory authority (e.g., VSMP authority, VESCP authority, or the department) is necessary, additional control measures shall be implemented to minimize pollutants in stormwater discharges until such approvals can be obtained.
2. The operator may be required to remove accumulated sediment deposits located outside of the construction activity covered by this general permit as soon as practicable in order to minimize environmental impacts. The operator shall notify the VSMP authority and the department as well as obtain all applicable federal, state, and local authorizations, approvals, and permits prior to the removal of sediments accumulated in surface waters including wetlands.

PART III

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

NOTE: Discharge monitoring is not required for this general permit. If the operator chooses to monitor stormwater discharges or control measures, the operator must comply with the requirements of subsections A, B, and C, as appropriate.

A. Monitoring.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this general permit. Analyses performed according to test procedures approved under 40 CFR Part 136 shall be performed by an environmental laboratory certified under regulations adopted by the Department of General Services (1VAC30-45 or 1VAC30-46).
3. The operator shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Monitoring records and reports shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this general permit, and records of all data used to complete the registration statement for this general permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the operator, or as requested by the board.

C. Reporting monitoring results.

1. The operator shall update the SWPPP to include the results of the monitoring as may be performed in accordance with this general permit, unless another reporting schedule is specified elsewhere in this general permit.
2. Monitoring results shall be reported on a discharge monitoring report (DMR); on forms provided, approved or specified by the department; or in any format provided that the date, location, parameter, method, and result of the monitoring activity are included.

3. If the operator monitors any pollutant specifically addressed by this general permit more frequently than required by this general permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this general permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this general permit.

D. Duty to provide information. The operator shall furnish, within a reasonable time, any information which the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this general permit or to determine compliance with this general permit. The board, department, EPA, or VSMP authority may require the operator to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the CWA and the Virginia Stormwater Management Act. The operator shall also furnish to the board, department, EPA, or VSMP authority, upon request, copies of records required to be kept by this general permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this general permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized stormwater discharges. Pursuant to § 62.1-44.5 of the Code of Virginia, except in compliance with a state permit issued by the department, it shall be unlawful to cause a stormwater discharge from a construction activity.

G. Reports of unauthorized discharges. Any operator who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302, or § 62.1-44.34:19 of the Code of Virginia that occurs during a 24-hour period into or upon surface waters or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters, shall notify the Department of Environmental Quality of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department and the VSMP authority within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this general permit.

Discharges reportable to the department and the VSMP authority under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a "bypass" or "upset," as defined herein, should occur from a facility and the discharge enters or could be expected to enter surface waters, the operator shall promptly notify, in no case later than within 24 hours, the department and the VSMP authority by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The operator shall reduce the report to writing and shall submit it to the department and the VSMP authority within five days of discovery of the discharge in accordance with Part III I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service of some or all of the facilities; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The operator shall report any noncompliance which may adversely affect surface waters or may endanger public health.

1. An oral report to the department and the VSMP authority shall be provided within 24 hours from the time the operator becomes aware of the circumstances. The following shall be included as information that shall be reported within 24 hours under this subdivision:
 - a. Any unanticipated bypass; and
 - b. Any upset that causes a discharge to surface waters.
2. A written report shall be submitted within five days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The department may waive the written report on a case-by-case basis for reports of noncompliance under Part III I if the oral report has been received within 24 hours and no adverse impact on surface waters has been reported.

3. The operator shall report all instances of noncompliance not reported under Part III I 1 or 2 in writing as part of the SWPPP. The reports shall contain the information listed in Part III I 2.

NOTE: The reports required in Part III G, H and I shall be made to the department and the VSMP authority. Reports may be made by telephone, email, or by fax. For reports outside normal working hours, leaving a recorded message shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Management maintains a 24-hour telephone service at 1-800-468-8892.

4. Where the operator becomes aware of a failure to submit any relevant facts, or submittal of incorrect information in any report, including a registration statement, to the department or the VSMP authority, the operator shall promptly submit such facts or correct information.

J. Notice of planned changes.

1. The operator shall give notice to the department and the VSMP authority as soon as possible of any planned physical alterations or additions to the permitted facility or activity. Notice is required only when:
 - a. The operator plans an alteration or addition to any building, structure, facility, or installation that may meet one of the criteria for determining whether a facility is a new source in 9VAC25-870-420;
 - b. The operator plans an alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this general permit; or
2. The operator shall give advance notice to the department and VSMP authority of any planned changes in the permitted facility or activity, which may result in noncompliance with state permit requirements.

K. Signatory requirements.

1. Registration statement. All registration statements shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this chapter, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this chapter, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by this general permit, including SWPPPs, and other information requested by the board or the department shall be signed by a person described in Part III K 1 or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part III K 1;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized

representative may thus be either a named individual or any individual occupying a named position); and

- c. The signed and dated written authorization is included in the SWPPP. A copy must be provided to the department and VSMP authority, if requested.
3. Changes to authorization. If an authorization under Part III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the construction activity, a new authorization satisfying the requirements of Part III K 2 shall be submitted to the VSMP authority as the administering entity for the board prior to or together with any reports or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Part III K 1 or 2 shall make the following certification:

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The operator shall comply with all conditions of this general permit. Any state permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this general permit may constitute a violation of the Virginia Stormwater Management Act but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for state permit termination, revocation and reissuance, or modification; or denial of a state permit renewal application.

The operator shall comply with effluent standards or prohibitions established under § 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this general permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the operator wishes to continue an activity regulated by this general permit after the expiration date of this general permit, the operator shall submit a new registration statement at least 90 days before the expiration date of the existing general permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing general permit.

N. Effect of a state permit. This general permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this general permit shall be construed to preclude the institution of any legal action under, or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by § 510 of the Clean Water Act. Except as provided in general permit conditions on "bypassing" (Part III U) and "upset" (Part III V), nothing in this general permit shall be construed to relieve the operator from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this general permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties to which the operator is or may be subject under §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or § 311 of the Clean Water Act.

Q. Proper operation and maintenance. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed or used by the operator to achieve compliance with the conditions of this general permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the operator only when the operation is necessary to achieve compliance with the conditions of this general permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering surface waters and in compliance with all applicable state and federal laws and regulations.

S. Duty to mitigate. The operator shall take all steps to minimize or prevent any discharge in violation of this general permit that has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this general permit.

U. Bypass.

1. "Bypass," as defined in 9VAC25-870-10, means the intentional diversion of waste streams from any portion of a treatment facility. The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part III U 2 and 3.
2. Notice.
 - a. Anticipated bypass. If the operator knows in advance of the need for a bypass, the operator shall submit prior notice to the department, if possible at least 10 days before the date of the bypass.
 - b. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in Part III I.
3. Prohibition of bypass.
 - a. Except as provided in Part III U 1, bypass is prohibited, and the board or department may take enforcement action against an operator for bypass unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The operator submitted notices as required under Part III U 2.

- b. The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three conditions listed in Part III U 3 a.

V. Upset.

1. An "upset," as defined in 9VAC25-870-10, means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based state permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based state permit effluent limitations if the requirements of Part III V 4 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
3. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
4. An operator who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:
 - a. An upset occurred and that the operator can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The operator submitted notice of the upset as required in Part III I; and
 - d. The operator complied with any remedial measures required under Part III S.
5. In any enforcement proceeding, the operator seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The operator shall allow the department as the board's designee, the VSMP authority, EPA, or an authorized representative of either entity (including an authorized contractor), upon presentation of credentials and other documents as may be required by law to:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this general permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this general permit;
3. Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and
4. Sample or monitor at reasonable times, for the purposes of ensuring state permit compliance or as otherwise authorized by the Clean Water Act or the Virginia Stormwater Management Act, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. State permit actions. State permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the operator for a state permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any state permit condition.

Y. Transfer of state permits.

1. State permits are not transferable to any person except after notice to the department. Except as provided in Part III Y 2, a state permit may be transferred by the operator to a new operator only if the state permit has been modified or revoked and reissued, or a minor modification made, to identify the new operator and incorporate such other requirements as may be necessary under the Virginia Stormwater Management Act and the Clean Water Act.
2. As an alternative to transfers under Part III Y 1, this state permit may be automatically transferred to a new operator if:
 - a. The current operator notifies the department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new operators containing a specific date for transfer of state permit responsibility, coverage, and liability between them; and
 - c. The department does not notify the existing operator and the proposed new operator of its intent to modify or revoke and reissue the state permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part III Y 2 b.
3. For ongoing construction activity involving a change of operator, the new operator shall accept and maintain the existing SWPPP, or prepare and implement a new SWPPP prior to taking over operations at the site.

Z. Severability. The provisions of this general permit are severable, and if any provision of this general permit or the application of any provision of this state permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this general permit shall not be affected thereby.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

(703) 583-3800 Fax (703) 583-3821

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

September 4, 2015

Mr. Jeff Austin
Shirley Contracting, LLC
45240 Business Circle, Suite 100
Dulles, Virginia 20166

**SENT VIA E-MAIL
RECEIPT CONFIRMATION REQUESTED**

Re: Virginia Water Protection (VWP) Individual Permit Number 15-0076
Route 606 Loudoun County Pkwy/Old Ox Rd Reconstruction, Loudoun County, Virginia
Final VWP Individual Permit

Dear Mr. Austin:

Pursuant to the VWP Permit Program Regulation 9 VAC 25-210-10 and § 401 of the Clean Water Act Amendments of 1977, Public Law 95-217, the Department of Environmental Quality has enclosed the VWP Individual Permit for the "Route 606 Loudoun County Pkwy/Old Ox Rd Reconstruction" project. The proposed project results in total impacts to 6.81 acres of surface waters, consisting of 6.34 acres of permanent impacts and 0.47 acre of temporary impacts in Loudoun County, Virginia.

This permit is valid for 15 years from the date of issuance. No re-issuance or extension of the permit may occur, as the permit term cannot exceed the maximum of 15 years.

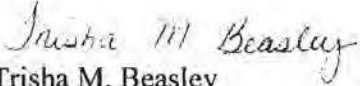
As provided by Rule 2A:2 of the Supreme Court of Virginia, you have **30 calendar days** from the date of service (the date you actually received this decision or the date it was e-mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period. Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies.

Alternatively, an owner may request a formal hearing for the formal taking of evidence upon relevant fact issues under Section 2.2-4020 of the Administrative Process Act. A petition for a formal hearing must meet the requirements set forth in 9 VAC 25-230-130.B of the Virginia Administrative Code. In cases involving actions of the board, such petition must be filed within 30 calendar days after notice of such action is sent to such owner by certified mail.

Shirley Contracting, LLC
VWP Individual Permit No. 15-0076
September 4, 2015
Page 2 of 2

If you have any questions, please contact Christoph Quasney at (703) 583-3826 or
Christoph.Quasney@deq.virginia.gov.

Respectfully,


Trisha M. Beasley
Regional VWPP Program Manager

Enclosures: Permit Cover Page, Part I - Special Conditions, Part II - General Conditions, Attachment 1:
Monthly VWP Permit Inspection Checklist, Attachment 2: VWP Permit Construction
Status Update Form

cc: Ms. Kim Larkin, Dewberry Consultants, LLC – VIA EMAIL
Ms. Alice Allen-Grimes, U.S. Army Corps of Engineers, Norfolk District Office – VIA EMAIL
Mr. Jay Woodward, Virginia Marine Resources Commission – VIA EMAIL



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VWP Individual Permit Number 15-0076

Effective Date: September 4, 2015

Expiration Date: September 3, 2030

VIRGINIA WATER PROTECTION PERMIT ISSUED PURSUANT TO THE STATE WATER CONTROL LAW AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner, and in compliance with § 401 of the Clean Water Act as amended (33 USC 1341 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the State Water Control Board (board) has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards. The board finds that the effect of the impact, together with other existing or proposed impacts to surface waters, will not cause or contribute to a significant impairment to state waters or fish and wildlife resources.

Permittee: Shirley Contracting Company, LLC

Address: 8435 Backlick Rd, Lorton, VA 22079

Activity Location: The project site consists of approximately 5 miles of the Loudoun County Parkway/Old Ox Rd (Route 606), located between Evergreen Mills Rd (Route 621) and Dulles Greenway (Route 267) in Loudoun County, Virginia.

Activity Description: The permittee proposes to widen approximately 5 miles of Loudoun County Parkway/Old Ox Rd (Route 606) between Evergreen Mills Rd (Route 621) and Dulles Greenway (Route 267) from the existing two-lane road to a four-lane road. This permit authorizes total impacts to 6.81 acres of surface waters, consisting of 6.34 acres of permanent impacts and 0.47 acre of temporary impacts. The permanent impacts consist of 1.71 acres of palustrine forested wetlands (PFO), 4.22 acres of palustrine emergent wetlands (PEM), and 0.41 acre (1,479 linear feet) of stream channel. The temporary impacts consist of 0.01 acre of PFO, 0.29 acre of PEM, 0.09 acre of palustrine open water (POW), and 0.08 acre (171 linear feet) of stream channel. This permit also authorizes the dredging of 150 cubic yards of Horsepen Lake associated with the construction of the principal spillway culvert.

Compensation for permanent wetland impacts shall be provided through the purchase of 7.61 wetland credits purchased from the Virginia Aquatic Resources Trust Fund (VARTF) and/or a DEQ approved mitigation bank that is authorized to sell credits to the permitted impact site.

Compensation for stream channel impacts shall be provided through the purchase of 1,320 stream compensation credits from the Virginia Aquatic Resources Trust Fund (VARTF) and/or a DEQ approved

mitigation bank that is authorized to sell credits to the permitted impact site. The wetland and stream channel credit sales must be in accordance with the approved Mitigation Banking Instrument for the mitigation bank.

The permitted activity shall be in accordance with this Permit Cover Page, Part I - Special Conditions, and Part II - General Conditions.



Thomas A. Faha, Regional Director

September 4, 2015

Date

Part I – Special Conditions

A. Authorized Activities

1. This permit authorizes total impacts to 6.81 acres of surface waters, consisting of 6.34 acres of permanent impacts and 0.47 acre of temporary impacts. The permanent impacts consist of 1.71 acres of palustrine forested wetlands (PFO), 4.22 acres of palustrine emergent wetlands (PEM), and 0.41 acre (1,479 linear feet) of stream channel. The temporary impacts consist of 0.01 acre of PFO, 0.29 acre of PEM, 0.09 acre of palustrine open water (POW), and 0.08 acre (171 linear feet) of stream channel. This permit also authorizes the dredging of 150 cubic yards of Horsepen Lake associated with the construction of the principal spillway culvert.
2. Authorized impacts shall be as depicted on the impacts map entitled *Route 606 WOUS/Wetland Impact Map* and associated *Impact Plates #1-10* dated January, 2015 with latest revision date of May 2015, and received June 15, 2015. Any changes to the impacts map that affect permitted areas shall be submitted to DEQ immediately upon determination that changes are necessary, and DEQ approval shall be required prior to implementing the changes. Authorized activities shall be conducted as described in the Joint Permit Application dated January 19, 2015, and received January 20, 2015, and supplemental materials, revisions and clarifications received through June 15, 2015.
3. The permit authorizes the temporary use of mechanical equipment in surface waters in accordance with all applicable permit conditions.
4. The permittee shall notify the DEQ of any additional impacts to surface waters, changes to the type of surface water impacts associated with this project, or any changes to the design or type of construction activities in surface waters authorized by this permit. DEQ approval shall be required prior to implementing the changes. Any additional impacts, modifications, or changes shall be subject to individual permit review and/or modification of this permit.

B. Permit Term

1. This permit is valid for **fifteen (15) years** from the date of issuance. A new permit may be necessary for the continuance of the authorized activities or any permit requirement that has not been completed, including compensation provisions. The permit term, including any granted extensions, shall not exceed 15 years.
2. The permittee shall notify DEQ in writing at least 120 calendar days prior to the expiration of this permit if reissuance will be requested.

C. Standard Project Conditions

1. The activities authorized by this permit shall be executed in such a manner that any impacts to beneficial uses are minimized. As defined in § 62.1-10(b) of the Code, "beneficial use" means both instream and offstream uses. Instream beneficial uses include, but are not limited to, the protection of fish and wildlife habitat, maintenance of waste assimilation, recreation, navigation,

and cultural and aesthetic values. Offstream beneficial uses include, but are not limited to, domestic (including public water supply), agricultural, electric power generation, commercial, and industrial uses. Public water supply uses for human consumption shall be considered the highest priority.

2. No activity shall substantially disrupt the movement of aquatic life indigenous to the water body, including those species that normally migrate through the area, unless the primary purpose of the activity is to impound water.
3. Flows downstream of the project area shall be maintained to protect all uses.
4. No activity shall cause more than minimal adverse effect on navigation, and no activity shall block more than 50% of the flow of the stream at any given time.
5. The activity shall not impede the passage of normal or expected high flows, and any associated structure shall withstand expected high flows.
6. Continuous flow of perennial springs shall be maintained by the installation of spring boxes, French drains, or other similar structures.
7. All excavation, dredging, or filling in surface waters shall be accomplished in a manner that minimizes bottom disturbance and turbidity.
8. All in-stream activities shall be conducted during low-flow conditions whenever practicable.
9. All construction, construction access, and demolition activities associated with this project shall be accomplished in a manner that minimizes construction materials or waste materials from entering surface waters, unless authorized by this permit. Wet, excess, or waste concrete shall be prohibited from entering surface waters.
10. All fill material placed in surface waters shall be clean and free of contaminants in toxic concentrations or amounts in accordance with all applicable laws and regulations.
11. Measures shall be employed at all times to prevent and contain spills of fuels, lubricants, or other pollutants into surface waters.
12. Machinery or heavy equipment in temporarily impacted wetlands shall be placed on mats or geotextile fabric, or other suitable means shall be implemented, to minimize soil disturbance to the maximum extent practical. Mats, fabrics, or other measures shall be removed as soon as the work is complete in the temporarily impacted wetland.
13. Heavy equipment is authorized for use within the stream channel during project construction or stream restoration activities when site conditions prohibit access from the streambank. The equipment shall be stationed on cobble bars and the activities conducted in the dry or during low flow conditions, whenever possible.

14. Temporary disturbances to wetlands, stream channels, and/or stream banks during project construction activities shall be avoided and minimized to the maximum extent practicable.
15. All temporarily disturbed wetland areas shall be restored to preconstruction conditions within 30 calendar days of completing work in the areas, which shall include re-establishing preconstruction contours, and planting or seeding with appropriate wetland vegetation according to cover type (emergent, scrub/shrub, or forested), except for invasive species identified on DCR's Invasive Alien Plant Species of Virginia list. The permittee shall take all appropriate measures to promote and maintain the revegetation of temporarily disturbed surface waters through the second year post-disturbance.
16. All temporarily impacted streams and stream banks shall be restored to their original elevations and contours within 30 calendar days following the construction at that stream segment, and the banks shall be seeded or planted with the same vegetative cover type originally present along the banks, including supplemental erosion control grasses if necessary but not including invasive species identified on DCR's Invasive Alien Plant Species of Virginia list. The permittee shall take all appropriate measures to promote and maintain the revegetation of temporarily disturbed surface waters through the second year post-disturbance.
17. All materials (including fill, construction debris, excavated materials, and woody materials, that are temporarily placed in wetlands, in stream channels, or on stream banks) shall be placed on mats or geotextile fabric, shall be immediately stabilized to prevent the material or leachate from entering surface waters, and shall be entirely removed within 30 calendar days following completion of that construction activity. After removal, disturbed areas shall be returned to original contours, shall be stabilized, and shall be restored to the original vegetated state within 30 calendar days. The permittee shall take all appropriate measures to promote and maintain the revegetation of temporarily disturbed surface waters through the second year post-disturbance.
18. Temporary in-stream construction features such as cofferdams shall be made of non-erodible materials.
19. Virginia Water Quality Standards shall not be violated in any surface waters as a result of the project activities.
20. All non-impacted surface water and any required upland buffers that are within the project or right-of-way limits, and that are within fifty feet of any project activities, shall be clearly flagged or demarcated for the life of the construction activity within that area. The permittee shall notify all contractors and subcontractors that *no activities are to occur in these marked areas*.
21. All required notifications and submittals shall include project name and permit number and be submitted electronically to vwp.nro@deq.virginia.gov or mailed to the DEQ office stated below, to the attention of the VWP permit manager, unless directed in writing by DEQ subsequent to the issuance of this permit: Department of Environmental Quality-Northern Regional Office, 13901 Crown Court, Woodbridge, Virginia 22193.

22. All reports required by this permit and other information requested by DEQ shall be signed by the permittee or a person acting in the permittee's behalf, with the authority to bind the permittee. A person is a duly authorized representative only if *both* criteria below are met. If a representative authorization is no longer valid because of a change in responsibility for the overall operation of the facility, a new authorization shall be immediately submitted to DEQ.
- a. The authorization is made in writing by the permittee.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
23. All submittals shall contain the following signed certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

24. Any fish kills or spills of fuels or oils shall be reported to DEQ immediately upon discovery at (703) 583-3800. If DEQ cannot be reached, the spill shall be reported to the Virginia Department of Emergency Management (DEM) at 1-800-468-8892 or the National Response Center (NRC) at 1-800-424-8802.
25. DEQ shall be notified in writing within 24 hours or as soon as possible on the next business day when potential environmentally threatening conditions are encountered which require debris removal or involve potentially toxic substances. Measures to remove the obstruction, material, or toxic substance or to change the location of any structure are prohibited until approved by DEQ.

D. Stream Modifications, Including Intake/Outfall Structures

1. Redistribution of existing stream substrate for erosion control purposes is prohibited.
2. Material removed from the stream bottom shall not be deposited into surface waters unless otherwise authorized in this permit.
3. Riprap apron for all outfalls shall be designed in accordance with Virginia Erosion and Sediment Control Handbook, Third Edition, 1992, or the most recent version in effect at the time of construction.
4. For streambank protection activities, structures and backfill shall be placed as close to the streambank as practical, while still avoiding and minimizing impacts to surface waters to the

maximum extent practical. No material shall be placed in excess of the minimum necessary for erosion protection.

5. Asphalt and materials containing asphalt or other toxic substances shall not be used in the construction of submerged sills, breakwaters, dams, or weirs.
6. If stream channelization or relocation is authorized, all work in surface waters shall be done in the dry, unless specifically authorized by this permit, and all flows shall be diverted around the channelization or relocation area until the new channel is stabilized. The diversion shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The new stream channel shall be constructed following the typical sections submitted with the application and should incorporate natural stream channel design principles to the greatest extent practicable. A low flow channel shall be constructed within the channelized or relocated area. The centerline of the channel shall meander, to the extent possible, to mimic natural stream morphology. The rerouted stream flow shall be fully established before construction activities in the old streambed can begin.

E. Installation of Utilities

1. All utility line work in surface waters shall be performed in a manner that minimizes disturbance in each area. Temporarily disturbed surface waters shall be restored in accordance with Part I.C.15, C.16, and C.17, unless otherwise authorized by this permit.
2. Material resulting from trench excavation may be temporarily sidecast into wetlands not to exceed a total of 90 calendar days, provided the material is not placed in a manner such that it is dispersed by currents or other forces.
3. The trench for a utility line cannot be constructed in a manner that drains wetlands (e.g., backfilling with extensive gravel layers creating a French drain effect).

F. Road Crossings

1. Access roads authorized by this permit shall be constructed to minimize the adverse effects on surface waters to the maximum extent practicable and to follow as near as possible pre-construction contours and elevations.
2. Installation of pipes and road crossings shall occur in the dry via the implementation of cofferdams, sheetpiling, stream diversions or other similar structures.
3. All surface waters temporarily affected by a road crossing shall be restored to their original elevations immediately following the removal of that particular temporary crossing. Temporary access roads shall be removed entirely following activity completion.
4. If stream channelization or relocation is authorized, all work in surface waters shall be done in the dry, unless specifically authorized by this permit, and all flows shall be diverted around the

channelization or relocation area until the new channel is stabilized. This work shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The stream channelization or relocation shall be constructed following the typical sections submitted with the application and should incorporate natural stream channel design principles to the greatest extent practicable. A low flow channel shall be constructed within the channelized or relocated area. The centerline of the channel shall meander, to the extent possible, to mimic natural stream morphology. The rerouted stream flow shall be fully established before construction activities in the old streambed can begin.

5. At stream crossings of Route 606 Old Ox Road/Loudoun County Parkway of Cabin Branch at Impact 30, new pipes and culverts less than 24 inches in diameter shall be countersunk a minimum of three inches, and pipes and culverts greater than 24 inches in diameter shall be countersunk a minimum of six inches to provide for the re-establishment of a natural stream bottom and to maintain a low flow channel. For multiple-celled culverts, only the bottoms of those cells situated below the limits of ordinary high water shall be countersunk. To the greatest extent practicable, other cells, pipes, or culverts shall be elevated to provide a natural distribution of flood flows. The requirement to countersink shall not apply to extensions or maintenance of existing culverts that are not countersunk, to floodplain culverts being placed above ordinary high water, to culverts being placed on bedrock, or to culverts required to be placed on slopes 5% or greater.
6. Stream bottom elevations at road crossings shall be measured at the inlet and outlet of the proposed structure and recorded prior to construction and within one week after the completion of construction to ensure that the design elevations were met. This information shall be recorded on the *Monthly VWP Permit Inspection Checklist (Attachment 1)* completed after the crossing is installed.

G. Stormwater Management Structures

1. The outfall and overflow structure shall be constructed and maintained to prevent downstream sediment deposition, erosion, or scour that may be associated with normal flow and any expected storm flows. Construction shall include the use of an appropriately sized riprap outlet protection apron at the outfall site.
2. Maintenance excavation shall follow the approved stormwater management plan authorized by this permit, and shall not exceed the original contours of the facility. A complete stormwater facility maintenance plan shall be submitted to the DEQ for each stormwater management facility authorized by the permit. Maintenance excavation shall follow the approved maintenance plan, and shall not exceed the original contours of the facility as constructed.
3. Compensation for unavoidable impacts shall not be allowed within maintenance areas of stormwater management facilities.
4. Draining of a stormwater management facility shall be performed by a method that prevents downstream sediment deposition, erosion, or scour.

H. Dredging Activities

1. Nontidal areas: Dredging depths shall not exceed the maximum depth of any connecting or adjacent surface waters immediately outside the area to be dredged.
2. Dredging shall be accomplished to minimize disturbance of the bottom and minimize turbidity levels in the water column.
3. A dredged material management plan for the designated upland disposal site shall be submitted 60 calendar days prior to the dredging activity.
4. Dredged material will undergo toxicity testing. The result of these tests shall be submitted 60 calendar days prior to the dredging activity. Specifically, the permittee shall test for the following parameters:
 - a. BTEX (Benzene, Ethylbenzene, Toluene, Xylene)
 - b. PCB (Polychlorinated Biphenyl)
 - c. Heavy Metals
 1. Arsenic (As)
 2. Cadmium (Cd)
 3. Chromium (Cr)
 4. Lead (Pb)
 5. Mercury (Hg)
 6. Selenium (Se)
 7. Silver (Ag)
 8. Selenium (Se)
 - d. TCLP (Toxicity Characteristic Leaching Procedures)
 1. Arsenic (As)
 2. Barium (Ba)
 3. Cadmium (Cd)
 4. Chromium (Cr)
 5. Lead (Pb)
 6. Mercury (Hg)
 7. Selenium (Se)
 8. Silver (Ag)
 9. Selenium (Se)
 - e. TPH (Total Petroleum Hydrocarbons)
5. If warranted by the results of toxicity testing, dredged material shall be disposed of at an appropriate hazardous material disposal site. Hazardous material disposal shall be necessary in cases where toxicity testing indicates dredged materials exceed applicable State Water Quality Standards (9 VAC 25-260-140) for acute freshwater aquatic life criteria or non-public water supply human health criteria (whichever is more stringent) for any parameter listed in I.H.4. TCLP testing is subject to standards as defined by the U.S. EPA's SW-846; and exceedance of any TCLP standard shall warrant hazardous material disposal.

6. If warranted by the results of toxicity testing, dredged material dewatering effluent shall be collected and disposed of at a hazardous material disposal site. The section shall be necessary in cases where toxicity testing indicates dredged materials exceed applicable State Water Quality Standards (9 VAC 25-260-140) for acute freshwater aquatic life criteria or non-public water supply human health criteria (whichever is more stringent) for any parameter listed in I.H.4. If dewatering toxic dredged materials, Part I.H.14-16 will need to be amended via a hazardous dredged material management plan to ensure the safe handling and storage of toxic materials, and that dewatered effluent is prevented from entering surface waters. The plan is to be submitted 30 calendar days prior to the dredging activity. This plan will also serve to satisfy Part I.H.3.
7. The double handling of dredged material in surface waters shall not be permitted.
8. All dredged materials pumped by hydraulic method via pipeline to the disposal area will be done in such a manner as to prevent leakage or discharge into surface waters. In the event of a ruptured pipeline, dredging/disposal operations shall immediately cease until repairs are accomplished.
9. Side slope cuts of the dredging area shall not exceed a two-horizontal-to-one-vertical (2:1) slope to reduce slumping of material into the dredged area.
10. All dredge material shall be transported via barges, or watertight trucks if transport on public roads is required, for disposal at an approved upland site, provided that all required permits for the facility are valid. If watertight trucks are not available, dredged material shall be dewatered (e.g., drained of all free water) prior to transport to the final disposal site on public roads. No hazardous materials shall be disposed of at this site.
11. During transport, dredge material shall be handled in accordance with the transport operation's spill prevention plan. In the event of a spill, the response portions of the plan shall be implemented immediately.
12. Barges or trucks used for the transportation of dredged material shall be filled in such a manner as to prevent any overflow of dredged material.
13. During off-loading, dredge material shall not be handled directly over open water. The off-loading operation shall be conducted in a manner that prevents any discharge of liquids or solids to surface waters.
14. The dredge material dewatering area shall be of adequate size to contain the dredge material and to allow for adequate dewatering and settling out of sediment prior to discharge back into surface waters. Runoff from precipitation shall be diverted around the dewatering area.
15. The dredge material dewatering area shall utilize an earthen berm or straw bales covered with filter fabric along the edge of the area to contain the dredged material. The dewatering area shall be properly stabilized prior to placing the dredged material within the dewatering area. The dewatering area shall be adequately sized to contain the dredged material and accumulated precipitation for the duration of the dredging activities that utilize the dewatering area.

16. Pipeline outfalls and spillways shall be located at opposite ends of the dewatering area to allow for maximum retention and settling time. Filter fabric shall be used to cover the outfall pipe to further reduce sedimentation to surface waters.
17. Adequate ground cover or seeding shall be applied to the outside bank of the earthen berm immediately after constructing the berm to minimize soil runoff.
18. Overtopping of the dredge spoil containment berms with dredge spoil disposal materials post completion shall be prohibited.

I. Project Construction Monitoring and Submittals (Impact Sites)

1. The permittee shall submit written notification at least **ten (10) calendar days** prior to the initiation of land disturbance or construction activities in permitted areas. The notification shall include a projected schedule for initiating and completing work at each permitted impact area.
2. Site inspections shall be conducted **once every calendar month** and recorded on the *Attachment 1: Monthly VWP Permit Inspection Checklist* by the permittee or the permittee's qualified designee during active construction within authorized surface water impact areas. Monthly inspections shall be conducted in the following areas: all authorized permanent and temporary impact areas; all avoided surface waters, including wetlands, stream channels, and open water; surface water areas within 50 feet of any land disturbing activity; and all on-site areas designated for permanent preservation. The *Attachment 1: Monthly VWP Permit Inspection Checklist* shall be completed in its entirety for each monthly inspection and shall be kept on-site and made available for review by DEQ staff upon request during normal business hours.
3. The *Attachment 2: VWP Permit Construction Status Update Form* enclosed with this permit shall be completed in June and December of every year for the duration of this permit. The *Attachment 2: VWP Permit Construction Status Update Form* shall include reference to the VWP permit authorization number and one of the following statements for each authorized surface water impact location:
 - a. Construction activities not yet started;
 - b. Construction activities started;
 - c. Construction activities started but are currently inactive, or;
 - d. Construction activities complete.
4. The *Attachment 2: VWP Permit Construction Status Update Form* shall be submitted electronically to vwp.nro@deq.virginia.gov or mailed to the Northern Regional Office at 13901 Crown Court, Woodbridge, Virginia 22193 and must be received by DEQ no later than January 10 and July 10 of every year.

5. The permittee shall notify DEQ within 24 hours of discovering impacts to surface waters including wetlands, stream channels, and open water that are not authorized by this permit. The notification shall include photographs, estimated acreage and/or linear footage of impacts, and a description of the impacts.
6. The permittee shall submit written notification of completion within 30 calendar days after the completion of all activities in all permitted impact areas authorized under this permit.

J. Compensatory Mitigation

1. Compensation for permanent impacts to 1.71 acres of PFO and 4.22 acres of PEM shall be provided through the purchase of 7.61 wetland credit from the Virginia Aquatic Resources Trust Fund (VARTF) and/or a DEQ approved mitigation bank that is authorized to sell credits to the permitted impact site. The credit sale shall be in accordance with the approved Mitigation Banking Instrument for the mitigation bank. Purchase of required mitigation credits shall occur first through the purchase of available released credits followed by the purchase of advance credits.
2. Compensation for permanent impacts to 0.41 acre (1,479 linear feet) of stream channels shall be provided through the purchase of 1,320 stream compensation credits from the VARTF and/or a DEQ approved mitigation bank that is authorized to sell credits to the permitted impact site. The credit sale shall be in accordance with the approved Mitigation Banking Instrument for the mitigation bank. Purchase of required mitigation credits shall occur first through the purchase of available released credits followed by the purchase of advance credits.

K. Approved In-Lieu Fee Fund General Conditions

1. Documentation of the receipt of VARTF credit purchase shall be submitted to and received by DEQ prior to initiating work in permitted impact areas.
2. All required notifications and submittals shall be submitted to Department of Environment Quality-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, to the attention of the VWP permit manager, unless directed in writing by DEQ subsequent to the issuance of this permit.

L. Approved Mitigation Bank General Conditions

1. Documentation that the DEQ approved mitigation bank has debited the required mitigation credits from the mitigation bank ledger shall be submitted to and received by DEQ prior to initiating work in permitted impact areas.
2. All required notifications and submittals shall be submitted to Department of Environment Quality-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, to the attention of the VWP permit manager, unless directed in writing by DEQ subsequent to the issuance of this permit.

Part II – General Conditions

A. Duty to Comply

The permittee shall comply with all conditions of the VWP permit. Nothing in the VWP permit regulations shall be construed to relieve the permittee of the duty to comply with all applicable federal and state statutes, regulations and prohibitions. Any VWP permit violation is a violation of the law, and is grounds for enforcement action, VWP permit termination, revocation, modification, or denial of an application for a VWP permit extension or reissuance.

B. Duty to Cease or Confine Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the activity for which a VWP permit has been granted in order to maintain compliance with the conditions of the VWP permit.

C. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any impacts in violation of the permit which may have a reasonable likelihood of adversely affecting human health or the environment.

D. VWP Permit Action

1. A VWP permit may be modified, revoked and reissued, or terminated as set forth in 9 VAC 25-210 et seq.
2. If a permittee files a request for VWP permit modification, revocation, or termination, or files a notification of planned changes, or anticipated noncompliance, the VWP permit terms and conditions shall remain effective until the request is acted upon by the board. This provision shall not be used to extend the expiration date of the effective VWP permit. If the permittee wishes to continue an activity regulated by the VWP permit after the expiration date of the VWP permit, the permittee must apply for and obtain a new VWP permit or comply with the provisions of 9 VAC 25-210-185 (VWP Permit Extension).

VWP permits may be modified, revoked and reissued or terminated upon the request of the permittee or other person at the board's discretion, or upon board initiative to reflect the requirements of any changes in the statutes or regulations, or as a result of VWP permit noncompliance as indicated in the Duty to Comply subsection above, or for other reasons listed in 9 VAC 25-210-180 (Rules for Modification, Revocation and Reissuance, and Termination of VWP permits).

E. Inspection and Entry

Upon presentation of credentials, any duly authorized agent of the board may, at reasonable times and under reasonable circumstances:

1. Enter upon any permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the VWP permit conditions;
2. Inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the VWP permit; and
3. Sample or monitor any substance, parameter or activity for the purpose of ensuring compliance with the conditions of the VWP permit or as otherwise authorized by law.

F. Duty to Provide Information

1. The permittee shall furnish to the board any information which the board may request to determine whether cause exists for modifying, revoking, reissuing or terminating the VWP permit, or to determine compliance with the VWP permit. The permittee shall also furnish to the board, upon request, copies of records required to be kept by the permittee.
2. Plans, specifications, maps, conceptual reports and other relevant information shall be submitted as required by the board prior to commencing construction.

G. Monitoring and Records Requirements

1. Monitoring of parameters, other than pollutants, shall be conducted according to approved analytical methods as specified in the VWP permit. Analysis of pollutants will be conducted according to 40 CFR Part 136 (2000), Guidelines Establishing Test Procedures for the Analysis of Pollutants.
2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
3. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart or electronic recordings for continuous monitoring instrumentation, copies of all reports required by the VWP permit, and records of all data used to complete the application for the VWP permit, for a period of at least three years from the date of the expiration of a granted VWP permit. This period may be extended by request of the board at any time.
4. Records of monitoring information shall include:
 - a. The date, exact place and time of sampling or measurements;
 - b. The name of the individuals who performed the sampling or measurements;
 - c. The date and time the analyses were performed;

- d. The name of the individuals who performed the analyses;
- e. The analytical techniques or methods supporting the information such as observations, readings, calculations and bench data used;
- f. The results of such analyses; and
- g. Chain of custody documentation.

H. Transferability

This VWP permit may be transferred to a new permittee only by modification to reflect the transfer, by revoking and reissuing the permit, or by automatic transfer. Automatic transfer to a new permittee shall occur if:

1. The current permittee notifies the board within 30 days of the proposed transfer of the title to the facility or property;
2. The notice to the board includes a written agreement between the existing and proposed permittee containing a specific date of transfer of VWP permit responsibility, coverage and liability to the new permittee, or that the existing permittee will retain such responsibility, coverage, or liability, including liability for compliance with the requirements of any enforcement activities related to the permitted activity; and
3. The board does not within the 30-day time period notify the existing permittee and the new permittee of its intent to modify or revoke and reissue the VWP permit.

I. Property rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize injury to private property or any invasion of personal rights or any infringement of federal, state or local law or regulation.

J. Reopener

Each VWP permit shall have a condition allowing the reopening of the VWP permit for the purpose of modifying the conditions of the VWP permit to meet new regulatory standards duly adopted by the board. Cause for reopening VWP permits includes, but is not limited to when the circumstances on which the previous VWP permit was based have materially and substantially changed, or special studies conducted by the board or the permittee show material and substantial change, since the time the VWP permit was issued and thereby constitute cause for VWP permit modification or revocation and reissuance.

K. Compliance with State and Federal Law

Compliance with this VWP permit constitutes compliance with the VWP permit requirements of the State Water Control Law. Nothing in this VWP permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other state law or regulation or under the authority preserved by § 510 of the Clean Water Act.

L. Severability

The provisions of this VWP permit are severable.

M. Permit Modification

A VWP permit may be modified, but not revoked and reissued except when the permittee agrees or requests, when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of VWP permit conditions that differ from those of the existing VWP permit or are absent from it;
2. When new information becomes available about the operation or activity covered by the VWP permit which was not available at VWP permit issuance and would have justified the application of different VWP permit conditions at the time of VWP permit issuance;
3. When a change is made in the promulgated standards or regulations on which the VWP permit was based;
4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Act;
5. When changes occur which are subject to "reopener clauses" in the VWP permit; or
6. When the board determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use and the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to §§ 62.1-242 through 62.1-253 of the Code of Virginia, during the term of the VWP permit.

N. Permit Termination

After notice and opportunity for a formal hearing pursuant to Procedural Rule No. 1 (9 VAC 25-230-100) a VWP permit can be terminated for cause. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the VWP permit;
2. The permittee's failure in the application or during the VWP permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;
3. The permittee's violation of a special or judicial order;
4. A determination by the board that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by VWP permit modification or termination;
5. A change in any condition that requires either a temporary or permanent reduction or elimination of any activity controlled by the VWP permit; and
6. A determination that the permitted activity has ceased and that the compensatory mitigation for unavoidable adverse impacts has been successfully completed.

O. Civil and Criminal Liability

Nothing in this VWP permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this VWP permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under § 311 of the Clean Water Act or §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Unauthorized Discharge of Pollutants

Except in compliance with this VWP permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances;
2. Excavate in a wetland;
3. Otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life, to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses;
4. On or after October 1, 2001 conduct the following activities in a wetland:

- a. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions;
- b. Filling or dumping;
- c. Permanent flooding or impounding;
- d. New activities that cause significant alteration or degradation of existing wetland acreage or functions.

R. Permit Extension

Any permittee with an effective VWP permit for an activity that is expected to continue after the expiration date of the VWP permit, without any change in the activity authorized by the VWP permit, shall submit written notification requesting an extension. The permittee must file the request prior to the expiration date of the VWP permit. Under no circumstances will the extension be granted for more than 15 years beyond the original effective date of the VWP permit. If the request for extension is denied, the VWP permit will still expire on its original date and, therefore, care should be taken to allow for sufficient time for the board to evaluate the extension request and to process a full VWP permit modification, if required.



Attachment 1: MONTHLY VWP PERMIT INSPECTION CHECKLIST

An inspection of all permitted impact areas, avoided waters and wetlands, and permanently preserved waters, wetlands and upland areas must be conducted at least once every month during active construction activities. Maintain this record on-site and available for inspection by DEQ staff.

Project Name	Route 606 Loudoun County Pkwy/Old Ox Rd Reconstruction	VWP Permit #	15-0076	Inspection Date	
Inspector Name & Affiliation		Phone # & Email Address			
<p>Based on reading of VWP permit No. 15-0076 including authorized impacts map entitled <i>Rt 606 WOUS/Wetland Impact Map Plates 1-10</i> originally dated February 2015, revised through May 2015, and received June 15, 2015, and my inspection on the date referenced above, to the best of my knowledge this project (___ is in compliance / ___ is not in compliance) with the VWP Permit.</p>					
<p>I certify that the information contained in this report is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>					
<p>_____ Signature of Inspector</p>			<p>_____ Date</p>		

REVIEWED DURING SITE INSPECTION	Yes	No	N/A	Notes & Corrective Action Taken / Date Completed (use back of page if necessary)
Unauthorized impacts to surface waters, including wetlands, or upland preservation areas have occurred .* (This includes sedimentation impacts due to inadequate or failed erosion controls.)	<input type="checkbox"/>	<input type="checkbox"/>		
Non-impacted wetlands, streams and preservations areas within 50 feet of construction are clearly marked to prevent unpermitted impacts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Temporary impacts are being restored to original contours, stabilized, and allowed to re-establish with wetland vegetation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction activities are not substantially disrupting aquatic life movement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E&S controls are present, properly maintained, and functioning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
In-stream work is being performed in the dry with the appropriate use of cofferdams, sheetpiling, etc., to minimize stream bottom disturbance and turbidity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
New pipes and/or culverts at Impact 30 are to be countersunk to provide for the re-establishment of low flow fish passage and/or a natural stream bottom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Time-of-year restrictions regarding impacts to surface waters are being adhered to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Water quality monitoring is being conducted during stream impacts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Streams and wetlands are free from any sheen or discoloration that may indicate a spill of oil, lubricants, concrete or other pollutants. **	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Heavy equipment is placed on mats or geotextile fabric when working in wetlands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Exposed slopes/stream banks are stabilized immediately upon completion of work in each impact area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

* If unauthorized impacts have occurred, you **must** email or fax a copy of this report to DEQ within 24 hours of discovery. Email: vwp.nro@deq.virginia.gov Fax: 703-583-3821

** Any fish kills, or spills of fuels or oils must be reported **immediately upon discovery** to DEQ at 804-527-5020. If outside of normal business hours, contact Virginia Dept. of Emergency Management at 1-800-468-8892 or the National Response Center at 1-800-424-8802.

Notes



Attachment 2: VWP PERMIT CONSTRUCTION STATUS UPDATE FORM

Attached to PERMIT NO: 15-0076, Issuance: September 4, 2015

Date (check one):

June ____, _____

December ____, _____

VWP Permit No: 15-0076

Project Name: Route 606 Loudoun County Pkwy/Old Ox Rd Reconstruction

Status within each authorized surface water impact location, as identified on *Route 606 Wetland/WOUS Impact Map Plates 1-10*, originally dated January 2015, and received June 15, 2015:

(Check one of the following status options for each impact number/location. Attach additional sheet(s) if needed.)

Impact number	Construction activities started	Construction activities not started	Construction activities started but currently not active	Construction activities complete
1				
1a				
1b				
1c				
2				
3				
4				
5				
6				
7				
8				
9				

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Authorized Signature: _____

Print Name: _____

Title: _____

Phone: _____

Date: _____

Email: _____

Impact Construction Status Table (Continued)

Impact number	Construction activities started	Construction activities not started	Construction activities started but currently not active	Construction activities complete
9a				
10				
11				
11a				
12				
13				
14				
15				
16				
17				
18				
19				
19a				
20				
20a				
21				
22				
23				
23a				
24				
25				
25a				
26				
27				
28				
28a				
29				
29a				

Impact number	Construction activities started	Construction activities not started	Construction activities started but currently not active	Construction activities complete
29b				
30				
30a				
30b				
30c				
31				
32				
33				
33a				
34				
35				
36				
37				
38				
39				
40				
40a				



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

September 21, 2015

Special Projects Regulatory Section
NAO-2014-1928 (Horse Pen Run and Cabin Branch)

Shirley Contracting, LLC
ATTN: Mr. Jeff Austin
8435 Backlick Road
Lorton, VA 22079

Dear Mr. Austin:

Enclosed is a fully executed copy of Department of the Army Permit NAO-2014-1928 (VMRC #15-0076), issued to Shirley Contracting, LLC to reconstruct and widen Route 606 (Loudoun County Parkway/Old Ox Road) from the existing two lanes to four lanes between Evergreen Mills Road (Route 621) and the Dulles Greenway (Route 267), signed by both a representative of Shirley Contracting, LLC and the Corps of Engineers. A signed copy has been retained in our files.

If you have any questions, you may contact me at telephone (757) 201-7219 or by email at alice.w.allen-grimes@usace.army.mil.

Sincerely,

Alice W. Allen-Grimes
Project Manager, Special Projects
Regulatory Section

Enclosure

Copies Furnished (w/o encl.):

Environmental Protection Agency, Philadelphia
U. S. Fish and Wildlife Service, Gloucester
Virginia Department of Environmental Quality, Woodbridge
Virginia Marine Resources Commission, Newport News
Virginia Department of Transportation, Fairfax
Dewberry, Fairfax



**U.S. Army Corps
Of Engineers**
Norfolk District

Fort Norfolk, 803 Front Street
Norfolk, Virginia 23510-1096

DEPARTMENT OF THE ARMY PERMIT

Permittee: Shirley Contracting, LLC
Permit No.: NAO-2014-1928 / VMRC# 15-V0076
Issuing Office: U.S. Army Corps of Engineers Norfolk District Regulatory Branch
(CENAO-WR-R)

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- Section 404 of the Clean Water Act (33 U.S.C. 1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

Project Description:

Reconstruct and widen Route 606 (Loudoun County Parkway/Old Ox Road) from the existing two lanes to four lanes between Evergreen Mills Road (Route 621) and the Dulles Greenway (Route 267), a distance of approximately five miles. Stormwater management (SWM) facilities account for the majority of project impacts to streams and wetlands. Other components of the project include dedicated turn lanes at major intersections; a continuous shared-use recreational path along the west/north side of the road; improved drainage facilities; and improvements at Horsepen Dam to widen the dam to accommodate the extra travel lanes, accommodate the dam's emergency spillway, and meet Virginia Department of Conservation dam regulation standards.

The work is depicted on the attached drawings entitled "Rt. 606, WOUS/Wetland Impacts," Plates 1 and 1A dated March 2015, Plates 1B, 2, 3, 4, 5, 7, 8, 9, and 10, dated February 2015, and Plate 6 dated May 2015, and Plate 1C entitled "Horsepen Lake Temporary Causeway" dated March 9, 2015, all prepared by Dewberry.

The work will permanently impact 6.03 acres of wetlands, including 4.33 palustrine emergent and 1.705 acres of palustrine forested, and will temporarily impact 0.281

acres of emergent wetlands and 0.006 acres of forested wetlands. The work as proposed will impact 674 linear feet of perennial stream, 353 linear feet of intermittent stream, and 452 linear feet of ephemeral stream. The project will also temporarily impact 171 linear feet of stream.

To compensate for permanent impacts, you will purchase mitigation bank credits from a bank which includes the project site in its geographic service area. Credits are based on replacement ratios of 2:1 for forested wetlands and 1:1 for emergent wetlands, and stream credits are based on the Uniform Stream Methodology, resulting in a total of 7.74 wetland credits and 1,320 stream credits.

Project Location: The project is located in Horsepen Run and Cabin Branch and unnamed tributaries of those waterways, all of which are tributary to Broad Run, just west of Dulles International Airport, in Loudoun County, Virginia.

Project Specific Conditions:

1. Prior to the commencement of any work authorized by this permit, you shall advise the project manager, Alice Allen-Grimes, in writing at: Norfolk District, Corps of Engineers, 803 Front St., Norfolk, VA 23510, of the time the authorized activity will commence and the name and telephone number of all contractors or other persons performing the work. A copy of this permit and drawings must be provided to the contractor and made available to any regulatory representative during an inspection of the project site.
2. The time limit for completing the work authorized ends on December 31, 2019. Should you be unable to complete the authorized activity in the time limit provided, you must submit your request for a time extension to this office for consideration at least one month before the permit expiration date.
3. Enclosed is a "compliance certification" form, which must be signed and returned within 30 days of completion of the project, including any required mitigation. Your signature on this form certifies that you have completed the work in accordance with the permit terms and conditions.
4. Orange fencing shall be placed along the limits of all jurisdictional areas within and adjacent to construction limits except for those areas you are specifically authorized to impact by this permit. This measure is taken to insure that the contractor is fully aware of the location of jurisdictional areas that are not to be disturbed.
5. Any temporarily disturbed wetlands shall be restored to pre-construction grades and seeded with a wetland seed mix containing only native species.
6. Strict sediment and erosion control measures consistent with those contained in the standards and criteria of the current Virginia Sediment and Erosion Control handbook shall be used. The disposal site for any excavated material as part of the

project shall be located in a non-wetland area and shall be retained using silt fences and staked hay bales and/or other measures consistent with the Virginia Sediment and Erosion Control handbook.

7. You have indicated that mitigation for the proposed impacts will be accomplished by purchasing credits from a mitigation bank that has a geographic study area that includes the project site. As compensation for impacting 6.03 acres of wetlands, a total of 7.74 credits (a 1:1 ratio for emergent wetlands and a 2:1 ratio for forested wetlands) must be provided. As compensation for 1,479 linear feet of impacts to streams, you must provide 1,320 stream credits, as determined based on the Unified Stream Methodology. You must coordinate with the Corps regarding the mitigation bank(s) from which you propose to purchase the credits prior to obtaining them. Evidence that you have purchased the credits must be provided to the Corps prior to commencing the authorized activities in jurisdictional waters and wetlands, and within 120 days of the issuance of this permit.
8. In accordance with comments of the U.S. Fish and Wildlife Service and in order to minimize potential effects to the Northern long-eared bat (*Myotis septentrionalis*), a time-of-year restriction of April 15 to September 15 of any year is in effect for any tree clearing. If winter tree clearing is not feasible, then you may conduct bat surveys in accordance with the FWS survey guidelines [www.fws.gov/northeast/virginiafield/pdf/endspecies/2015IndianaBatSummerSurveyGuidelines01April2015.pdf]. The time-of-year restriction (and option to survey) applies to all project areas except those directly across from the areas previously surveyed (Horsepen pond associated with the Dulles Rail Yard project on Route 606), which are located north of Thunder Road as shown on the attached aerial photo received by the Norfolk District on May 26, 2015.

Special Conditions:

All project specific conditions listed above are special conditions of this permit.

1. No discharge of dredged or fill material may consist of unsuitable material (e.g.: trash, debris, car bodies, asphalt etc.) and material discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
2. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.
3. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.
4. The construction or work authorized by this permit will be conducted in a manner so as to minimize any degradation of water quality and/or damage to aquatic life. Also,

you will employ measures to prevent or control spills of fuels or lubricants from entering the waterway.

5. Any heavy equipment working in wetlands other than those permitted for permanent impact must be placed on mats or other measures must be taken to minimize soil disturbance.
6. Failure to comply with the terms and conditions of this permit can result in enforcement actions against the permittee and/or contractor.
7. In granting an authorization pursuant to this permit, the Norfolk District has relied on the information and data provided by the permittee. If, subsequent to notification by the Corps that a project qualifies for this permit, such information and data prove to be materially false or materially incomplete, the authorization may be suspended or revoked, in whole or in part, and/or the Government may institute appropriate legal proceedings.
8. All dredging and/or filling will be done so as to minimize disturbance of the bottom or turbidity increases in the water which tend to degrade water quality and damage aquatic life.
9. Your use of the permitted activity must not interfere with the public's right to reasonable navigation on all navigable waters of the United States.

General Conditions:

1. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 3 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
2. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately stop work and notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
3. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

4. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
5. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
6. The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required upon due notice from the Corps of Engineers to remove, relocate, or alter the structural work or obstructions caused thereby without expense to the United States. No claim shall be made against the United States on account of any such removal or alternation.

Further Information:

1. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, state or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal projects.
2. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
3. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
4. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 3 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

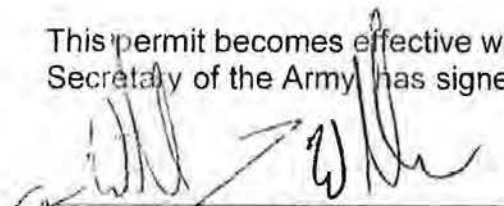
5. Extensions: Project Specific Condition #2 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as a permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.


(Permittee)

9/10/2015
(Date)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.


Jason E. Kelly, PMP
Colonel, U.S. Army
Commanding

9/21/2015
(Date)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(Transferee)

(Date)



COMMONWEALTH of VIRGINIA

Marine Resources Commission

2600 Washington Avenue

Third Floor

Newport News, Virginia 23607

Molly Joseph Ward
Secretary of Natural Resources

John M.R. Bull
Commissioner

September 2, 2015

Shirley Contracting Company, LLC
Attn: Jeff Austin
c/o Dewberry Consultants, LLC
Attn: Kimberly Larkin
8401 Arlington Boulevard
Fairfax, Virginia 22031

Re: VMRC #15-0076

Dear Mr. Austin:

Enclosed is the Marine Resources Commission permit authorizing you to fill approximately 14,000 square feet (1,994 square feet is temporary for construction access) of Horsepen Run, a tributary to the Potomac River in association with the widening of Route 606/Loudoun County Parkway near the Dulles Greenway Interchange in Loudoun County.

A yellow placard is also enclosed. This placard reflects the authorized activities for inspection purposes and must be conspicuously displayed at the work site throughout the construction phase. Failure to properly post the placard in a prominent location will be considered a violation of your permit conditions.

YOU ARE REMINDED THAT ANY DEVIATION FROM THE PERMIT OR ATTACHED DRAWINGS REQUIRES PRIOR AUTHORIZATION FROM THE MARINE RESOURCES COMMISSION. FAILURE TO OBTAIN THE NECESSARY MODIFICATION WILL BE CONSIDERED A VIOLATION AND COULD SUBJECT YOU TO CIVIL CHARGES IN AMOUNTS NOT TO EXCEED \$10,000 PER VIOLATION.

The work authorized by this permit is to be completed by July 28, 2018. Please note that in conformance with Special Condition 16 of your permit you are to notify the Commission 15 days prior to commencement of your permitted project. The enclosed self-addressed, stamped, postcard is to be used for this purpose. All other conditions of the permit will remain in effect.

An Agency of the Natural Resources Secretariat

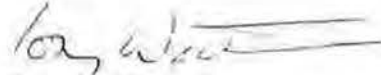
www.mrc.virginia.gov

Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

Shirley Contracting Company, LLC
September 2, 2015
Page 2

Please be advised that you may also require issuance of a U. S. Army Corps of Engineers permit before you begin work on this project. You may wish to contact them directly to verify any permitting requirements.

Sincerely,



Tony Watkinson
Chief, Habitat Management

TW/mos
HM
Enclosure
cc: Applicant

**COMMONWEALTH OF VIRGINIA
MARINE RESOURCES COMMISSION
PERMIT**

The Commonwealth of Virginia, Marine Resources Commission, hereinafter referred to as the Commission, on this 28th day of July 2015 hereby grants unto:

**Shirley Contracting Company, LLC
8435 Backlick Road
Lorton, VA 22079**

hereinafter referred to as the Permittee, permission to:

X Encroach in, on, or over State-owned subaqueous bottoms pursuant to Chapter 12, Subtitle III, of Title 28.2 of the Code of Virginia.

 Use or develop tidal wetlands pursuant to Chapter 13, Subtitle III, of Title 28.2 of the Code of Virginia.

Permittee is hereby authorized to fill approximately 14,000 square feet (1,994 square feet is temporary for construction access) of Horsepen Run, a tributary to the Potomac River in association with the widening of Route 606/Loudoun County Parkway near the Dulles Greenway Interchange in Loudoun County. All activities authorized herein shall be accomplished in conformance with the plans and drawings dated received January 27, 2015, and the revised plans and drawings dated received March 17, 2015, which are attached and made a part of this permit.

This permit is granted subject to the following conditions:

- (1) The work authorized by this permit is to be completed by July 28th, 2018. The Permittee shall notify the Commission when the project is completed. The completion date may be extended by the Commission in its discretion. Any such application for extension of time shall be in writing prior to the above completion date and shall specify the reason for such extension and the expected date of completion of construction. All other conditions remain in effect until revoked by the Commission or the General Assembly.
- (2) This permit grants no authority to the Permittee to encroach upon the property rights, including riparian rights, of others.
- (3) The duly authorized agents of the Commission shall have the right to enter upon the premises at reasonable times, for the purpose of inspecting the work being done pursuant to this permit.
- (4) The Permittee shall comply with the water quality standards as established by the Department of Environmental Quality, Water Division, and all other applicable laws, ordinances, rules and regulations affecting the conduct of the project. The granting of this permit shall not relieve the Permittee of the responsibility of obtaining any and all other permits or authority for the projects.
- (5) This permit shall not be transferred without written consent of the Commissioner.
- (6) This permit shall not affect or interfere with the right vouchsafed to the people of Virginia concerning fishing, fowling and the catching of and taking of oysters and other shellfish in and from the bottom of acres and waters not included within the terms of this permit.
- (7) The Permittee shall, to the greatest extent practicable, minimize the adverse effects of the project upon adjacent properties and wetlands and upon the natural resources of the Commonwealth.
- (8) This permit may be revoked at any time by the Commission upon the failure of the Permittee to comply with any of the terms and conditions hereof or at the will of the General Assembly of Virginia.
- (9) There is expressly excluded from the permit any portion of the waters within the boundaries of the Baylor Survey.
- (10) This permit is subject to any lease of oyster planting ground in effect on the date of this permit. Nothing in this permit shall be construed as allowing the Permittee to encroach on any lease without the consent of the leaseholder. The Permittee shall be liable for any damages to such lease.
- (11) The issuance of this permit does not confer upon the Permittee any interest or title to the beds of the waters.
- (12) All structures authorized by this permit, which are not maintained in good repair, shall be completely removed from State-owned bottom within three (3) months after notification by the Commission.
- (13) The Permittee agrees to comply with all of the terms and conditions as set forth in this permit and that the project will be accomplished within the boundaries as outlined in the plans attached hereto. Any encroachment beyond the limits of this permit shall constitute a Class 1 misdemeanor.
- (14) This permit authorizes no claim to archaeological artifacts that may be encountered during the course of construction. If, however, archaeological remains are encountered, the Permittee agrees to notify the Commission, who will, in turn notify the Department of Historic Resources. The Permittee further agrees to cooperate with agencies of the Commonwealth in the recovery of archaeological remains if deemed necessary.
- (15) The Permittee agrees to indemnify and save harmless the Commonwealth of Virginia from any liability arising from the establishment, operation or maintenance of said project.

The following special conditions are imposed on this permit:

- (16) The yellow placard accompanying this permit document must be conspicuously displayed at the work site.
- (17) Permittee agrees to notify the Commission a minimum of 15 days prior to the start of the activities authorized by this permit.
- (18) The instream construction activities shall be accomplished within cofferdams constructed of non-erodible materials in such a manner that no more than half the width of the waterway is obstructed at any point in time.
- (19) The cofferdams and any excess material will be removed to approved upland areas upon completion of construction, and the streambed shall be restored to its pre-existing contours and conditions.
- (20) The construction shall be performed during low-flow conditions to the greatest extent possible.
- (21) The Virginia Erosion and Sediment Control Handbook (3rd Edition, 1992) will be followed throughout construction.
- (22) The Permittee shall execute a transfer of the permit to the Virginia Department of Transportation upon their acceptance of the structure(s) authorized herein.

Description of Fees	Amount	Unit of Measure	Rate	Total	Frequency	After-The-Fact
Permit Fee				\$100.00	One-Time	
Total Permit Fees				\$100.00		

This permit consists of 8 Pages

PERMITTEE

Permittee's signature is affixed hereto as evidence of acceptance of all of the terms and conditions herein.

In cases where the Permittee is a corporation, agency or political jurisdiction, please assure that the individual who signs for the Permittee has proper authorization to bind the organization to the financial and performance obligations which result from activity authorized by this permit.

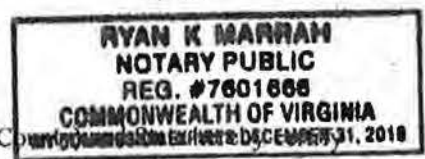
PERMITTEE

Accepted for Shirley Contracting Company, LLC

20th day of August, 2015

By [Signature] VICE PRESIDENT
(Name) (Title)

State of Virginia
City (or County) of Stafford, to-wit:



I, RYAN K MARRAH a Notary Public in and for said City (or County) and State of Virginia, that [Signature], Permittee, whose name is signed to the foregoing, has acknowledged the same before me in my City (or County) and State aforesaid.

Given under my hand this 20th day of August, 2015

My Commission Expires: 12/31/18

Notary Public [Signature]

COMMISSION

IN WITNESS WHEREOF, the Commonwealth of Virginia, Marine Resources Commission has caused these presents to be executed in its behalf by TONY WATKINSON, CHIEF, HABITAT MANAGEMENT

(Name) (Title) Marine Resources Commission

2ND day of SEPTEMBER, 20 15

By [Signature]

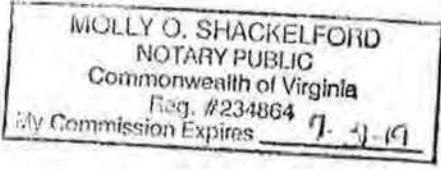
State of Virginia
City of Newport News, to-wit:

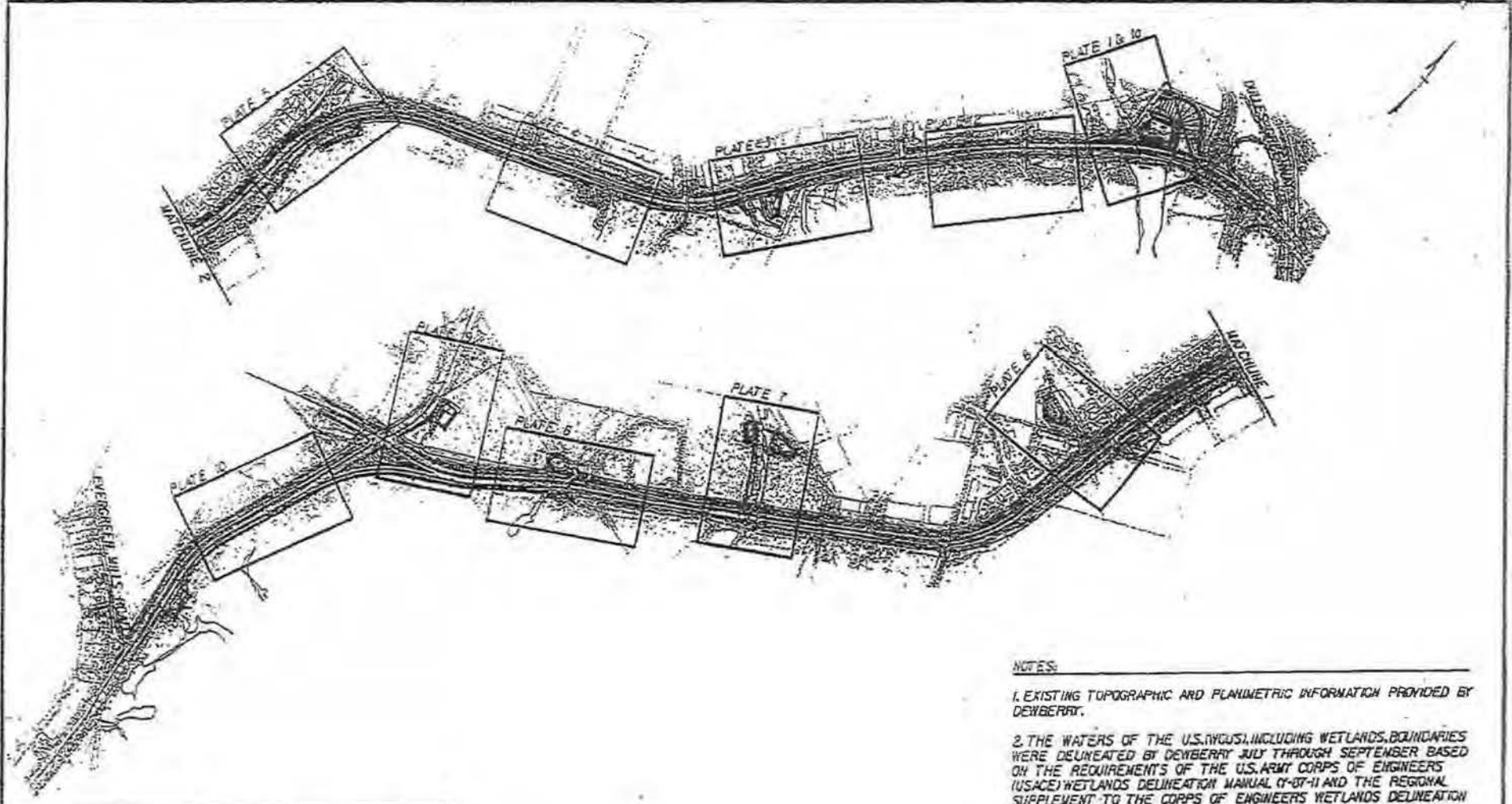
I, MOLLY O. SHACKELFORD a Notary Public within and for said City, State of Virginia, hereby certify that TONY WATKINSON, whose name is signed to the foregoing, bearing the 28th day of July 2015, has acknowledged the same before me in City aforesaid.

Given under my hand this 2ND day of SEPTEMBER, 20 15

My Commission Expires: JULY 31, 2019

Notary Public [Signature]





NOTES:

1. EXISTING TOPOGRAPHIC AND PLANIMETRIC INFORMATION PROVIDED BY DEWBERRY.
2. THE WATERS OF THE U.S. (WOUS), INCLUDING WETLANDS, BOUNDARIES WERE DELINEATED BY DEWBERRY JULY THROUGH SEPTEMBER BASED ON THE REQUIREMENTS OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) WETLANDS DELINEATION MANUAL (1-87-1) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, EASTERN MOUNTAINS AND FIEDMONT REGION (VERSION 2.0). THESE BOUNDARIES ARE APPROVED BY USACE JURISDICTIONAL DETERMINATION 140-204-028, DATED 13 JANUARY 2015.

ROUTE 606
WOUS/WETLAND IMPACT MAP
LOUDOUN COUNTY, VIRGINIA

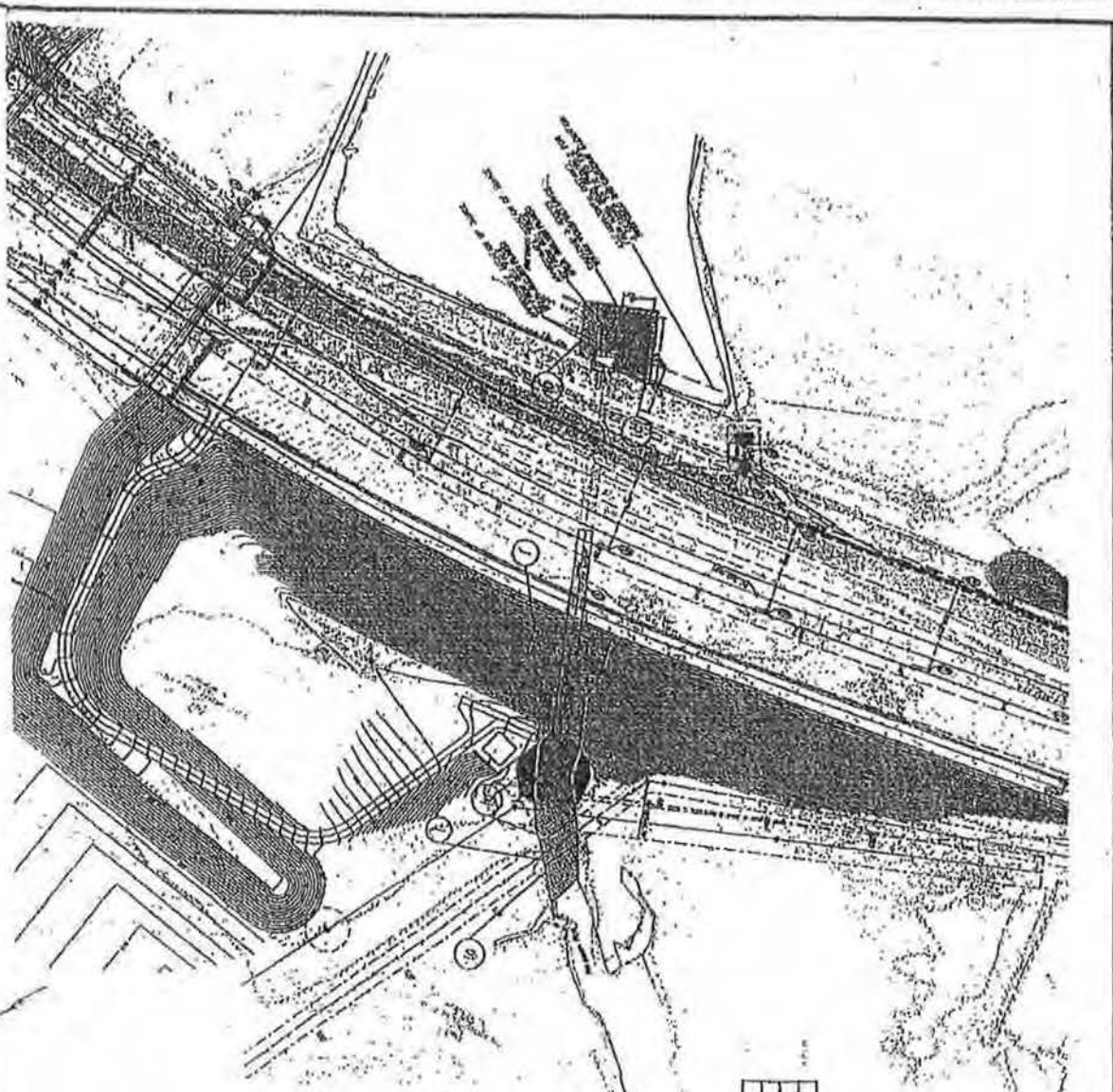
Dewberry®





Date :	JANUARY 2015
Scale :	1"=1,000'
Sheet :	1 OF 11

RECEIVED

By Virginia Marine Resources Departmental License No. 11-1213

2-1



- LEGEND:**
-  Permanent WQUS Wetlands; See Impact Table for Classification
 -  Temporary WQUS Wetlands; See Impact Table for Classification
 -  CAUSEWAY & ACCESS WITHIN WQUS/WETLANDS
 -  Impact Number

RECEIVED
 BY: [Signature]
 DATE: [Date]

Add: 1 Info/Revisions

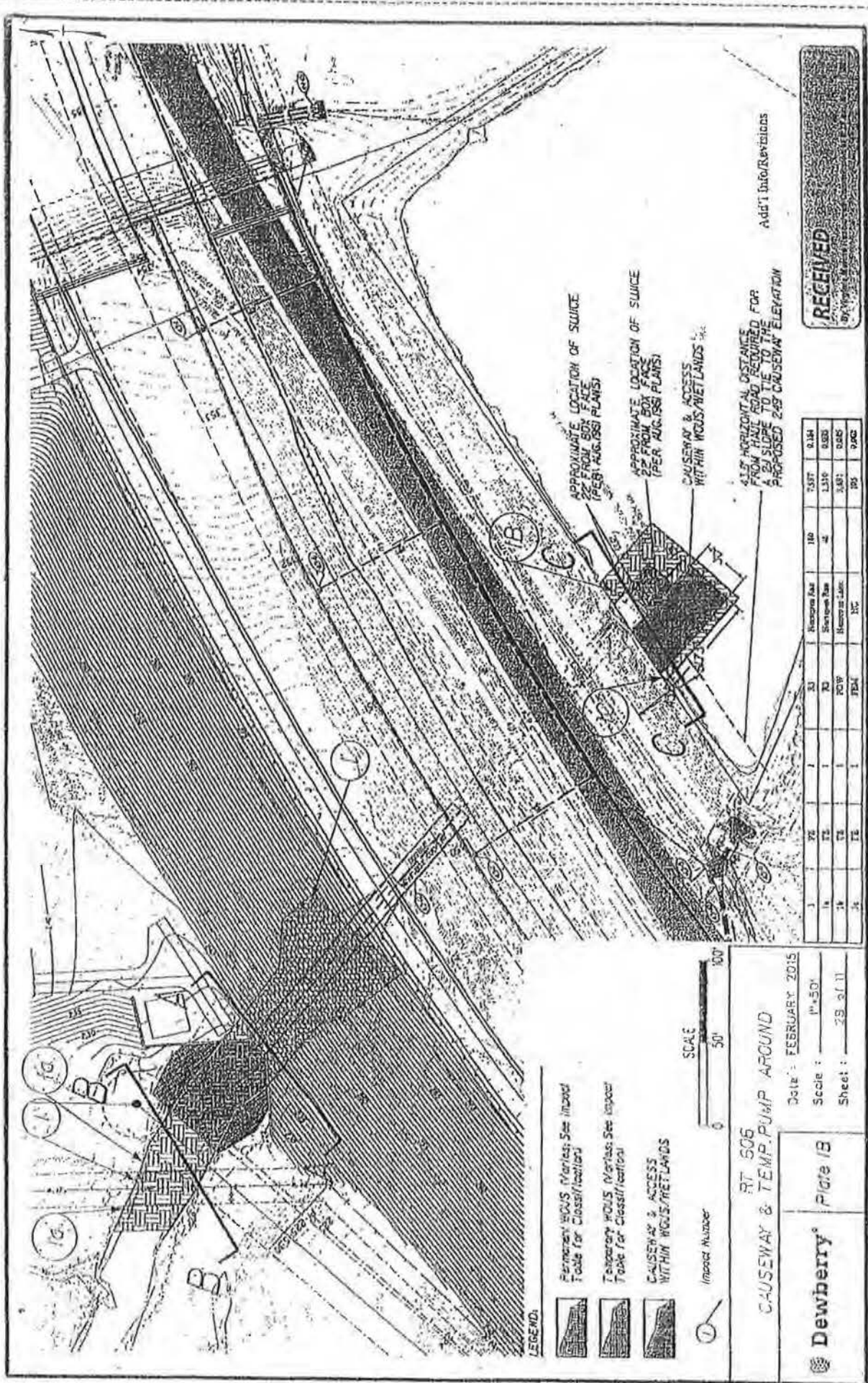
1	FE	1	33	Harmony Run	100	0.154
2	TE	1	33	Harmony Run	61	0.046
3	TE	1	307W	Memorial Lake	61	0.046
4	TE	1	75N	HC	767	0.692







Dewberry *Plate 1*

RT 506 WQUS/WETLAND IMPACTS

Date: MARCH 2015
 Scale: 1" = 100'
 Sheet: 2 of 11



- LEGEND:**
-  Permanent WGS (Wetlands See Impact Table for Classification)
 -  Temporary WGS (Wetlands See Impact Table for Classification)
 -  CAUSEWAY & ACCESS WITHIN WGS/WETLANDS
 -  Impact Number

SCALE
0 50' 100'

RT 506
CAUSEWAY & TEMP. PUMP AROUND

Date: FEBRUARY 2015
Scale: 1"=50'
Sheet: 29 of 11





Add Info/Revisions

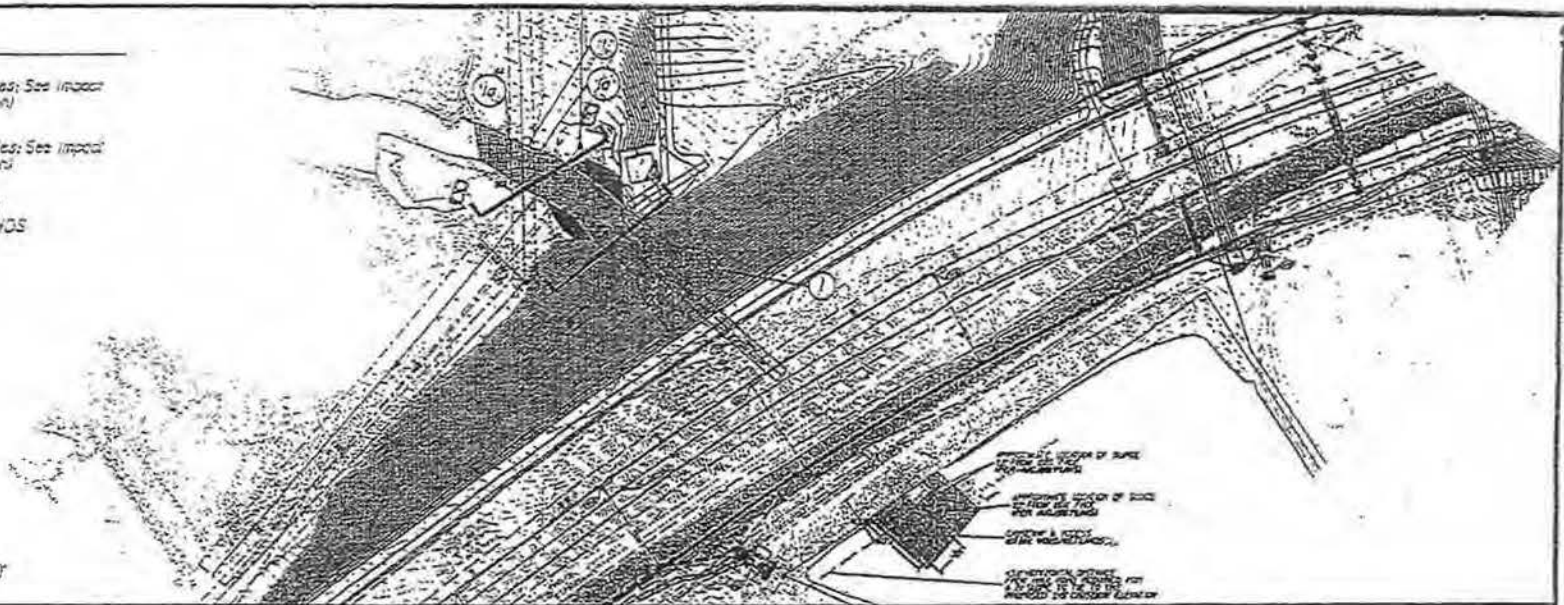
1	70	1	31	0.14	7.537	110	0.14
2	71	1	32	1.310	0.830	42	0.830
3	72	1	33	3.481	0.845	105	0.845
4	73	1	34	195	1.940	105	1.940

RECEIVED
BY: [Signature]
DATE: [Date]

Dewberry Plate 1/B

LEGEND:

-  Permanent WQUS (Varies; See Impact Table for Classification)
-  Temporary WQUS (Varies; See Impact Table for Classification)
-  CAUSEWAY & ACCESS WITHIN WQUS/WETLANDS
-  Impact Number



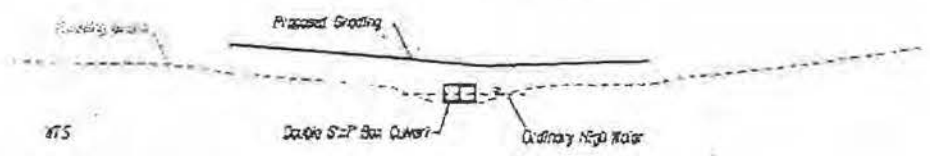
PROPOSED LOCATION OF BANK
FOR CAUSEWAY

PROPOSED LOCATION OF BANK
FOR ADJUTING

LOCATION OF CROSS
BANK RESTORATION

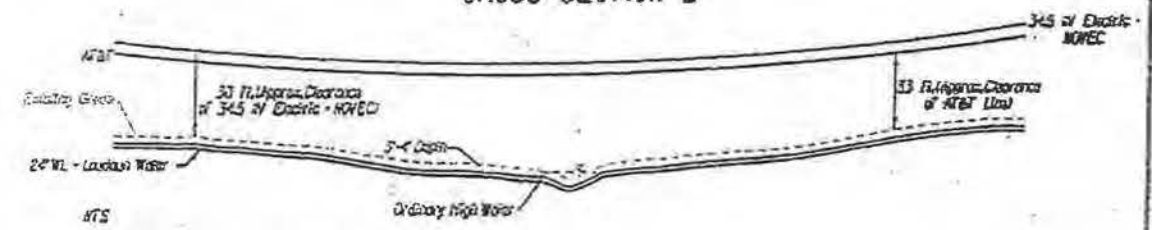
EXISTING BANK RESTORATION
FOR ADJUTING AND THE
REMOVAL OF CROSS BANK

CROSS SECTION A



1	T2	1	23	Recovery Bas	180	7,977	0.181
1a	T2	1	23	Recovery Bas	0	1,334	0.046
2a	T5	1	20W	Recovery Labe		3,691	0.045
1a	T2	1	FEM	FIC		305	0.092

CROSS SECTION B



RECEIVED
By Virginia Marine Resources Commission at 2:25 pm, March 17, 2015

Add'l Info/Revisions

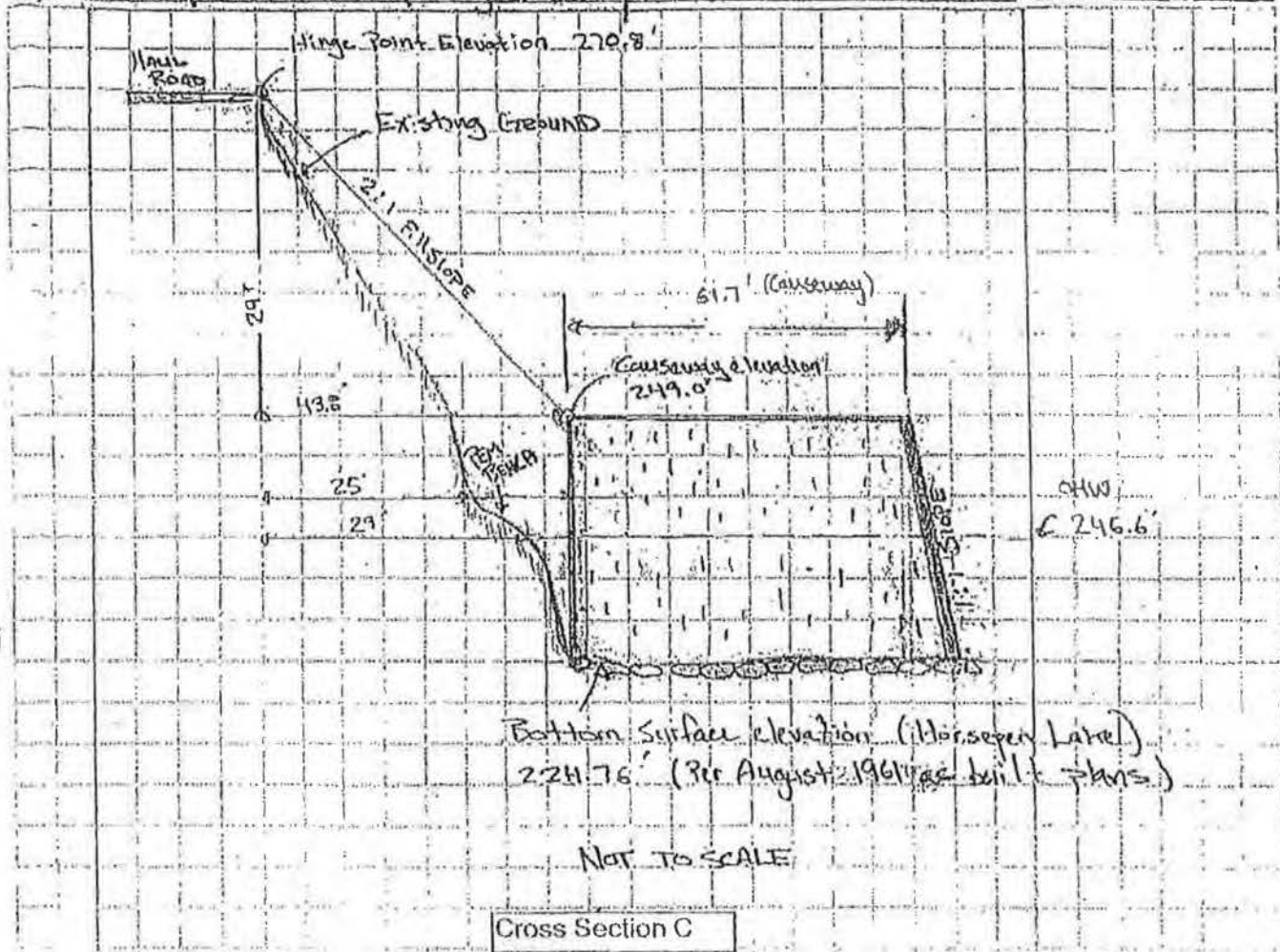
RT 606
Cross-Section View

Dewberry *Plate 1A*

Date: MARCH 2015
Scale: As Shown
Sheet: 2A of 11

2-4

Designer _____ Date _____ Checker _____ Date 03-09-15
Title RT 606 : PLATE 1 C Job No. _____
Subject Horseshoe Lake Temporary Causeway Sheet No. 2C of 11



Add'l Info/Revisions

RECEIVED

By Virginia Marine Resources Commission at 9:29 am, Mar 11, 2015

Permit # 15-0076



Commonwealth of Virginia Marine Resources Commission Authorization

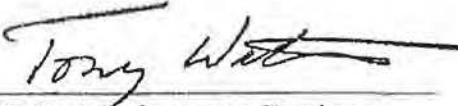
A Permit has been issued to:

The Permittee is hereby authorized to: **Shirley Contracting Company, LLC**
8435 Backlick Road
Lorton, VA 22079

to fill approximately 14,000 square feet (1,994 square feet is temporary for construction access) of Horsepen Run, a tributary to the Potomac River in association with the widening of Route 606/Loudoun County Parkway near the Dulles Greenway Interchange in Loudoun County.

Issuance Date: July 28, 2015

Expiration Date: July 28, 2018



Commissioner or Designee

This Notice Must Be Conspicuously Displayed At Site Of Work

BILL OF SALE

BILL OF SALE, made as of September 22, 2015, by **ROCK HEDGE MITIGATION BANK, LLC**, a Virginia limited liability company (hereinafter referred to as "Seller"); to **SHIRLEY CONTRACTING, LLC** (hereinafter referred to as "Purchaser").

WHEREAS, Seller and Purchaser have entered into that certain Agreement for Purchase and Sale of Stream Mitigation Credits and Wetland Mitigation Credits, dated September 16, 2015 (the "Purchase Agreement", the terms of which are incorporated herein by reference and made a part hereof), with respect to the sale by the Seller and purchase by the Purchase of Compensatory Stream Mitigation Credits and Wetlands Mitigation Credits held in Seller's Rock Hedge Wetland and Stream Mitigation Bank in Loudoun County, Virginia.

NOW THEREFORE, for and in consideration of the payment of the Purchase Price (as defined in the Purchase Agreement) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Seller hereby sells, transfers, assigns, conveys, delivers and sets over to Purchaser, its successors and assigns, 770 Compensatory Stream Mitigation Credits ("Credit") as such are described in the Purchase Agreement.

TO HAVE AND TO HOLD all such Credits hereby sold and transferred to Buyer and its successors and assigns forever.

IN WITNESS WHEREOF, Seller has caused this Bill of Sale to be executed by its duly authorized representative as of the date first above written.

ROCK HEDGE MITIGATION BANK, LLC

By: _____


Permit #:DEQ VWP-15-0076
Long/Lat: 38-56-57/77-29-38
Project: Route 606/Old Ox Road Widening and Reconstruction Project
Permittee: Shirley Contracting, LLC
Stream Credits of Impact: 770

BILL OF SALE AND CONVEYANCE

This BILL OF SALE AND CONVEYANCE is made on September 23, 2015 between EVERGREEN ENVIRONMENTAL, LLC ("Grantor"), whose mailing address is 425 Darby Paoli Road, Wayne, PA 19087, and Shirley Contracting, LLC ("Grantee"), whose mailing address is 8435 Backlick Road, Lorton, VA 22079.

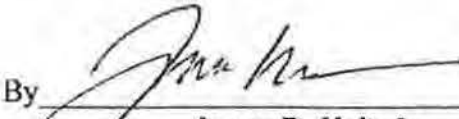
NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, THAT:

1. Grantor, for and in consideration of the purchase price set forth in that certain Agreement for Purchase and Sale of Wetland Mitigation Credits dated September 8, 2015, the receipt and sufficiency of which are hereby acknowledged, has granted, bargained, sold, conveyed, assigned, delivered (transferred ownership of), and by these presents does hereby grant, bargain, sell, convey, assign and deliver unto Grantee, in accordance with the terms and provisions hereinafter set forth, the following Wetland Mitigation Credits, out of the Evergreen Kettle Run Mitigation Bank enabled pursuant to the terms of the Banking Instrument, effective September 25, 2012 by and among Grantor, United States Army Corps of Engineers, Norfolk District ("USACOE") and Virginia Department of Environmental Quality ("VADEQ"):

7.548 wetland mitigation credits and 550 stream mitigation credits, collectively "Route 606 Credits", as such terms are defined in the Agreement, in satisfaction of a portion of VWP General Permit No. VWP-15-0076.
2. The Grantor acknowledges receipt of this money.
3. The Grantor promises that the Grantor has done no act to encumber the Credits conveyed herein.
4. As to the Credits conveyed herein, the Grantor warrants title, condition, fitness for purpose and gives all other express or implied warranties required or allowed by statutory and common law. Grantee and all persons claiming by, through or under it shall, to the extent permitted by law, be subrogated to all of the rights of Grantor in or with respect to any warranties and covenants made by others with respect to the Credits conveyed hereby.
5. The conveyance set forth herein is made as of the date at the top of the first page.

IN WITNESS WHEREOF, Grantor has caused this Bill of Sale and Conveyance to be executed and attested to by its proper corporate officers.


EVERGREEN ENVIRONMENTAL, LLC

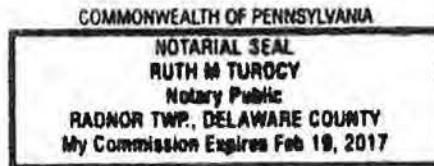
By 
James R. Holt, Jr.
Title: Manager

COMMONWEALTH OF PENNSYLVANIA §

COUNTY OF DELAWARE §

The foregoing instrument was acknowledged before me this 23rd day of September, 2015, by JAMES R. HOLT, JR., Managing Member of Evergreen Environmental, LLC, a Delaware limited liability company.

Notary Public 
My Commission Expires: Feb 19, 2017



BILL OF SALE AND CONVEYANCE

This BILL OF SALE AND CONVEYANCE is made on September 23, 2015 between MARSH RESOURCES, LLC ("Grantor"), whose mailing address is 2800 Post Oak Boulevard – Level 11, Houston Texas 77056; and Shirley Contracting, LLC ("Grantee"), whose mailing address is 8435 Backlick Road, Lorton, VA 22079.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS, THAT:

1. Grantor, for and in consideration of the Purchase Price set forth in that certain Agreement for Purchase and Sale of Wetland Mitigation Credits dated September 8, 2015, by and between Grantor and Grantee ("Agreement") and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, has granted, bargained, sold, conveyed, assigned, delivered (transferred ownership of), and by these presents does hereby grant, bargain, sell, convey, assign and deliver unto Grantee, in accordance with the terms and provisions hereinafter set forth, the following Wetland and/or Stream mitigation Credits, approved for release by the United States Army Corps of Engineers (USACE) under letter agreement dated April 16, 2008 and enable pursuant to the terms of the Banking Instrument, effective March 21, 2003 by and among Grantor, USACE, Virginia Department of Environmental Quality (VADEQ) and the U.S. Environmental Protection Agency:

0.192 wetland mitigation credits "Route 606 Credits", as such terms are defined in the Agreement, in satisfaction of a portion of VWP General Permit No. VWP-15-0076.
2. The Grantor acknowledges receipt of this money.
3. The Grantor promises that the Grantor has done no act to encumber the Credits conveyed herein.
4. As to the Credits conveyed herein, the Grantor warrants title, condition, fitness for purpose and gives all other express or implied warranties required or allowed by statutory and common law, Grantee and all persons claiming by, through or under it shall, to the extent permitted by law, be subrogated to all of the rights of Grantor in or with respect to any warranties and covenants made by others with respect to the Credits conveyed hereby.
5. The conveyance set forth herein is made as of the date at the top of the first page.

IN WITNESS WHEREOF, Grantor has caused this Bill of Sale and Conveyance to be executed and attested to by its proper corporate officers and its corporate seal is affixed.

Attest:

MARSH RESOURCES, LLC

Stephen A. Hatridge
Assistant Secretary

By:

[Signature]

Title: Vice President & General Manager

STATE OF TEXAS §

COUNTY OF HARRIS §

I certify that on September 23, 2015, Stephen A. Hatridge personally came

Before me and stated under oath to my satisfaction that:

- (a) This person is the attesting witness to the signing of the annexed Bill of Sale and Conveyance
- (b) This Bill of Sale and Conveyance was signed by Frank J. Feruzzi
(Executive's Name)
who is the VP & GM of Marsh Resources, LLC, the Grantor named in the annexed Bill of Sale and Conveyance, and who is fully authorized to and did execute this Bill of Sale and Conveyance on the Grantor's behalf;
- (c) This Bill of Sale and Conveyance was made for \$13,056.00 as the full and actual Consideration paid or to be paid for the transfer of title; and
- (d) The attesting witness signed this proof under oath to attest to the truth of these facts.

[Signature]
Name of Attesting Witness

Signed and Sworn to Before Me.
On this 28th day of September 2015

[Signature]
NOTARY PUBLIC



APPENDIX B.

RARE, THREATENED, AND ENDANGERED SPECIES COORDINATION

Laura Wolfe

From: Virginia Field Office, FW5 <virginiafieldoffice@fws.gov>
Sent: Tuesday, March 01, 2016 9:34 PM
To: Laura Wolfe
Subject: Confirmation of Project Receipt Re: Route 606 NOAA Easement Self-Certification Letter

Follow Up Flag: Follow up
Flag Status: Flagged

Thanks for submitting your online project package. We will review your package within 30 days of receipt. If you have submitted an online **project review request letter**, expect our response within 30 days. If you have submitted an online **project review certification letter**, you will typically not receive a response from us since the certification letter is our official response. However, if we have additional questions or we do not concur with your determinations, we will contact you during the review period.

Laura Wolfe

From: Laura Wolfe
Sent: Tuesday, March 01, 2016 9:33 PM
To: 'VirginiaFieldOffice@fws.gov'
Cc: 'Bethany Schwartz - NOAA Federal'; Mark George - NOAA Federal
Subject: Route 606 NOAA Easement Self-Certification Letter
Attachments: Rt606NOAA_online_project_review_certification_SIGNED.pdf;
Route606NOAA_ProjectReviewPackage.pdf

Hello,

Attached is the self-certification letter and project review package to initiate Section 7 consultation for the Route 606 NOAA Easement request. The National Oceanic and Atmospheric Administration (NOAA) is reviewing a request from the Virginia Department of Transportation (VDOT) for easements on its property in Sterling, Virginia where its Sterling Field Support Center (SFSC) and Baltimore/Washington Weather Forecast Office (WFO) are located. VDOT is proposing roadway reconstruction that would upgrade the existing two-lane, approximately five-mile section of Route 606 (Loudoun County Parkway/ Old Ox Road) between Route 621 and Route 267 to a four-lane roadway with divided median and additional signalized intersections. The Proposed Action includes 7.1 acres of permanent transportation easement, 3.9 acres of permanent SWM easement, 1.2 acres of permanent Northern Virginia Electric Cooperative (NOVEC) easement, 0.1 acres of permanent water utility easement, and 10.8 acres of temporary easement for construction of Route 606 and a new access road to NOAA's property, replacement of culverts, and the relocation of two Automated Surface Observing Systems.

The Northern Long-eared Bat was listed on May 4, 2015 and could potentially be impacted by the Route 606 Reconstruction Project. In absence of conducting a bat survey, VDOT's contractor, in accordance with comments from the USFWS in August 2015, is following a time-of-year restriction for tree clearing from April 15th to September 15th, of any year, to minimize potential effects to the Northern Long-eared Bat. If winter tree clearing is not feasible, a bat survey may be conducted in accordance with USFWS survey guidelines. The proposed improvements on the NOAA property are not expected to impact any forest resources and would have minimal impact to individual trees on the property.

NOAA is requesting a "not likely to adversely affect" determination for the Northern Long-eared bat. Please let me know if you have any questions.

~ Laura

LAURA D. WOLFE, AICP
Project Planner

RK&K
12600 Fair Lakes Circle, Suite 300
Fairfax, VA 22033

703.246.0028 P
703.259.3734 D
609.636.4795 C
www.rkk.com



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Date: 03/01/16

Self-Certification Letter

Project Name: Route 606 NOAA Easement

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Virginia Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. . 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. These conclusions resulted in:

- “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016 Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat; and/or
- “no Eagle Act permit required” determinations for eagles.

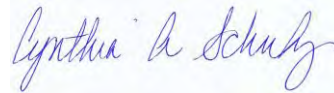
We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Virginia is available at our website http://www.fws.gov/northeast/virginiafield/endspecies/project_reviews.html. If you have any questions, please contact Troy Andersen of this office at (804) 824-2428.

Sincerely,



Cindy Schulz
Field Supervisor
Virginia Ecological Services

Enclosures - project review package

Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director



Rochelle Altholz
Deputy Director of
Administration and Finance

David C. Dowling
Deputy Director of
Soil and Water Conservation
and Dam Safety

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

April 13, 2016

Nick Krause
Rummel, Klepper & Kahl, LLP
12600 Fair Lakes Circle, Suite 300
Fairfax, VA 22033

Re: NOAA Easement for VDOT Route 606 Widening

Dear Mr. Krause:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Broad Run – Route 607 Stream Conservation Unit (SCU) is located downstream from the project site. SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Broad Run – Route 607 SCU has been given a biodiversity ranking of B5, which represents a site of general biodiversity significance. The natural heritage resource associated with this site is:

Lampsilis cariosa Yellow lampmussel G3G4/S2/NL/NL

The Yellow lampmussel ranges from Nova Scotia to Georgia in Atlantic slope drainages (NatureServe, 2009). In Virginia, it is recorded from the Roanoke, Chowan, James, York, and Potomac drainages. It is found in larger streams and rivers where good currents exist over sand and gravel substrates and in small creeks and ponds (Johnson, 1970).

Considered good indicators of the health of aquatic ecosystems, freshwater mussels are dependent on good water quality, good physical habitat conditions, and an environment that will support populations of host fish species (Williams et al., 1993). Because mussels are sedentary organisms, they are sensitive to water quality degradation related to increased sedimentation and pollution. They are also sensitive to habitat destruction through dam construction, channelization, and dredging, and the invasion of exotic mollusk species.

To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

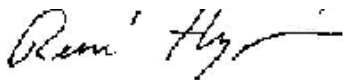
New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of \$95.00 has been assessed for the service of providing this information. Please find enclosed an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, Department of Conservation and Recreation, Division of Natural Heritage, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov.

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,



S. René Hypes
Project Review Coordinator

APPENDIX C.

**DEPARTMENT OF HISTORIC RESOURCES
COORDINATION**



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

87 Deacon Road
Fredericksburg, VA 22405

GREGORY A. WHIRLEY
COMMISSIONER

September 19, 2012

Ms. Kathleen S. Kilpatrick, Director
ATTN: Mr. Marc Holma, Office of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

Action Required: Determination of Eligibility and Effect
VDOT Project: 0606-053-983, P101
VDHR File: 2012-0168
County: Loudoun
Funding: Federal

Dear Mr. Holma:

The Virginia Department of Transportation (VDOT) is conducting environmental studies for improvements to Route 606 in Loudoun County. As the project is federally funded, the VDOT, on behalf of the Federal Highway Administration (FHWA) is coordinating this undertaking with your department in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800 and with reference to the 1999 Programmatic Agreement between the VDOT and the Virginia Department of Historic Resources (VDHR). This letter constitutes a formal request for concurrence with our determination of eligibility and effect for the project.

Project Description and APE

The proposed project consists of reconstructing and widening the existing 2-lane rural roadway to a 4-lane divided Urban Collector with a depressed grass median from Route 621 to Route 267 Dulles Greenway. The typical section will utilize a sufficiently wide median to allow for future expansion to a 6-lane section. The proposed roadway will use a similar typical section as the recently reconstructed section between Rte 50 and Route 621. The area of potential effects (APE) is defined as the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR 800.16(d)).

The direct APE includes all ROW and easements for the corridor project and measures 300-ft wide and had a length of 4.85-miles. The areas direct APE for archaeological investigation totaled 176-acres (71.4-ha). The APE for architectural resources includes all areas within the immediate viewshed of the project that is not obscured by vegetation and/or modern intrusions on the landscape. All architectural resources in the visual APE with a construction date of 1964 or earlier were subject to reconnaissance level architectural survey.

Identification of Historic Properties

In 2012 John Milner Associates, Inc (JMA), a VDOT consultant, performed the cultural resources survey for the project. Please find enclosed 2 copies of the Phase I Cultural Resources report entitled, *Cultural Resources Survey for the Dulles Loop-Route 606 Project, Loudoun County, Virginia*. The report meets the Secretary of the Interior's Standards and Guidelines (1983), as well as the VDHR Guidelines for cultural resources reports (2011). The VDOT is also distributing this information to identified interested agencies/organizations in Loudoun County for their review and potential comment.

Archaeological Resources

The archaeological survey identified five archaeological resources within the APE. Sites **44LD169**, **44LD170**, **44LD172**, **44LD968**, and **44LD969** were previously recorded within the limits of or directly abutting the project; but due to extensive ground disturbances, the portions of these sites within the APE were shown to be totally destroyed. The portions of these sites within the project lack all archaeological and depositional integrity, and they do not meet the criteria for NRHP eligibility in relation to Criteria A, B, C, or D.

A single archaeological location was also documented. It consisted of five ironstone sherds in disturbed/redposited soils and did not meet the criteria for assignment of a state archaeological site number. This archaeological location lacks archaeological integrity and does not meet the criteria for NRHP eligibility in relation to Criteria A, B, C, or D.

Architectural Resources

The architectural survey examined a total of nine architectural resources during this investigation. Four previously recorded resources in the APE include: **053-5255** (NWS Bldg #18), **053-5258** (NWS Bldg #16), **053-5693** (house at 43220 Old Ox Road), and **053-6086** (house at 43461 Old Ox Road). These resources are recommended not individually eligible for the NRHP/VLR. The remaining five newly recorded architectural properties (**053-6302**, **053-6303**, **053-6304**, **053-6305**, **053-6306**) are also recommended as not individually eligible for the NRHP/VLR.

In addition to the survey of individual properties, the project APE was examined for the possibility of the existence of an historic district. Several buildings meet the age criterion within the APE, but buildings are from a variety of periods, styles, and associations. They represent late nineteenth and early twentieth century farmsteads, mid-twentieth century suburbanization, modern suburban residential development, and modern commercial complexes. There is no a cohesive collection of buildings in the APE that merits further study under Criteria A, B, C, or D.

Battlefields

The project APE is not located within any American Battlefield Protection Program (ABPP) identified potential National Register eligible battlefields.

Determination of Effect

In accordance with 36 CFR 800.5(a), the VDOT has applied the criteria of adverse effect to historic properties within the project's APE. The regulations implementing Section 106 of the National Historic Preservation Act define an effect as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligible for the National Register" [36CFR800.16(i)]. The effect is adverse when the alteration of a qualifying characteristic occurs in a "manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" [36CFR800.5(a)]. Based on the cultural resources investigation completed for the project APE, it is recommended that the proposed project will have no adverse effect on historic properties.

The VDOT invites you to review the enclosed materials and indicate your concurrence with our no effect determination recommendation by signing below. Please return the original signature to my attention within 30 days. If you have any questions or need additional information about this project, please do not hesitate to contact me at (540) 654-1737 or Raymond.Ezell@vdot.virginia.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Raymond Ezell". The signature is fluid and cursive, with the first name "Ray" and the last name "Ezell" clearly distinguishable.

Raymond Ezell, RPA
Fredericksburg District Archaeologist

Enclosures

cc: /file97529
/Thomas Bland, Loudoun Historical Society
/Lori Kimball, Preservation Society of Loudoun County
/Cynthia Kunz, Northern Virginia Association for History
/Heidi Siebentritt, Loudoun County Planning
/Henry Ward, Metropolitan Washington Airport Authority

CONCURRENCE

The Virginia Department of Historic Resources (DHR) concurs with the Virginia Department of Transportation's (VDOT): 1) definition of the project's Area of Potential Effects (APE); 2) efforts to identify historic properties; 3) finding that archaeological sites **44LD169, 44LD170, 44LD172, 44LD968, and 44LD969** do not meet the criteria for National Register of Historic Places (NRHP) eligibility in relation to Criteria A, B, C, and D; and architectural properties: **053-5255, 053-5258, 053-5693, 053-6086, 053-6302, 053-6303, 053-6304, 053-6305, and 053-6306** do not meet the criteria for National Register of Historic Places (NRHP) individual eligibility in relation to Criteria A, B, C, and D, nor do they contribute to an historic district if one were to exist on this project; 4) determination that the project is not located within the American Battlefield Protection Program's (ABPP) identified National Register potentially eligible battlefields; 5) recommendation that the proposed project will have no effect on historic properties; and, 6) recommendation that no additional archaeological and/or architectural investigation is necessary for VDOT Project 0606-053-983, P101 (UPC 97529); VDHR File No. 2012-0168.

Ms. Kathleen S. Kilpatrick
Director, Virginia Department of Historic Resources
Virginia State Historic Preservation Officer

Date



COMMONWEALTH of VIRGINIA

Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Douglas W. Domenech
Secretary of Natural Resources

Kathleen S. Kilpatrick
Director

Tel: (804) 367-2373
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

19 October 2012

Mr. Raymond Ezell
Virginia Department of Transportation
87 Deacon Road
Fredericksburg, Virginia 22405

Re: Improvements to Route 606
Loudoun County
VDOT Project # 0606-053-983, P101
DHR File # 2012-0168

Dear Mr. Ezell:

The Department of Historic Resources (DHR) has received for our review the report "Cultural Resources Survey for the Dulles Loop-Route 606 Project, Loudoun County, Virginia" (August 2012) prepared by John Milner Associates, Inc. (Milner). The report recorded nine architectural properties and the results of a Phase I archaeological survey conducted within the project Area of Potential Effects (APE).

The DHR concurs with the consultant's recommendation that none of the architectural properties located in the APE are eligible for listing in the National Register of Historic Places (NRHP). These architectural properties are DHR survey numbers 053-5255, 053-5258, 053-5693, 053-6086, 053-6302, 053-6303, 053-6304, 053-6305, and 053-6306. With respect to archaeology, DHR does not concur that sites 44LD0169, 44LD0170, 44LD0172, 44LD0968, and 44LD0969 are not eligible for NRHP listing. We agree that none of these sites retains integrity within the APE and no further work is warranted in support of this project. However, previous management/eligibility recommendations should remain valid for these sites, as significant intact deposits may remain outside of the APE. As long as VDOT does not venture outside of its designated APE we agree that No Historic Properties will be Affected by the undertaking.

If you have any questions regarding our comments, please contact me at (804) 482-6090.

Sincerely,

Marc Holma, Architectural Historian
Office of Review and Compliance

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6416
Fax: (804) 862-6496

Capital Region Office
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Tidewater Region Office
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Floor
Newport News, VA 23608
Tel: (757) 886-2807
Fax: (757) 886-2808

Western Region Office
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Salma, VA 24153
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Fax: (540) 387-5446

Northern Region Office
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Stephens City, VA 22655
Tel: (540) 868-7031
Fax: (540) 868-7033



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

87 Deacon Road
Fredericksburg, VA 22405

GREGORY A. WHIRLEY
COMMISSIONER

June 10, 2013

Ms. Kathleen S. Kilpatrick, Director
ATTN: Mr. Marc Holma, Office of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

Action Required: Determination of Eligibility and Effect
VDOT Project: 0606-053-983, P101
VDHR File: 2012-0168
County: Loudoun
Funding: Federal

Dear Mr. Holma:

Recent design modifications to the above referenced project (Rte 606-Dulles Loop) by the Virginia Department of Transportation (VDOT) necessitated additional Cultural Resources survey for this project pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800. As the project is federally funded, the VDOT, on behalf of the Federal Highway Administration (FHWA) is coordinating this undertaking with your department in accordance with This letter constitutes a formal request for concurrence with our determination of eligibility and effect for the project.

Project Description and APE

The VDOT previously reported the description of the project as originally conceived with your office in a letter dated, September 19, 2012. The overall description of the project remains valid; however, the VDOT hereby reports that the project direct APE has been expanded to also include a number of proposed stormwater basins adjacent to the proposed ROW, intersection improvements, additional ROW/easements near Horsepen Pond, and 1000-ft of ROW south of the intersection of Rte 606 with Rte 621 (300-ft wide). The area of potential effects (APE) continues to be defined as the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR 800.16(d)).

The direct APE for this supplemental investigation includes all new/additional ROW and easements for the corridor project. The APE for architectural resources includes all areas within the immediate viewshed of the project that is not obscured by vegetation and/or modern intrusions on the landscape. All architectural resources in the visual APE with a construction date of 1964 or earlier were subject to reconnaissance level architectural survey.

Identification of Historic Properties

In May 2013 John Milner Associates, Inc (JMA), a VDOT consultant, performed the cultural resources survey for the additional ROW for this project. Please find enclosed 2 copies of the Phase I Cultural Resources report entitled, *Supplemental Cultural Resources Survey for the Dulles Loop-Route 606 Project, Loudoun County, Virginia*. The report meets the Secretary of the Interior's Standards and Guidelines (1983), as well as the VDHR Guidelines for cultural resources reports (2011). The VDOT is also distributing this information to identified interested agencies/organizations in Loudoun County for their review and potential comment.

Archaeological Resources

The archaeological survey identified two archaeological resources within the APE. Sites **44LD169** and **44LD170** were previously recorded partially within the limits of the project. These sites have been previously characterized as prehistoric Native American sites. A total of 28 shovel tests were excavated at these sites and failed to recover any artifacts within the APE. The portions of these sites within the APE lack all archaeological and depositional integrity, and no additional archaeological work is necessary at these sites. The portions of 44LD169 and 44LD170 within the APE do not meet the criteria for NRHP eligibility in relation to Criteria A, B, C, or D. The VDOT anticipates that no construction activity will take place outside the identified ROW/easements at these sites.

Architectural Resources

The supplemental architectural survey examined two architectural resources: **053-6340** (Bridge structure 6429) and **053-6341** (Bridge structure 6451). These resources are recommended not individually eligible for the NRHP/VLR.

In addition to the survey of individual properties, the project APE was examined for the possibility of the existence of an historic district. There is no a cohesive collection of buildings in the APE that merits further study under Criteria A, B, C, or D.

Battlefields

The project APE is not located within any American Battlefield Protection Program (ABPP) identified potential National Register eligible battlefields.

Determination of Effect

In accordance with 36 CFR 800.5(a), the VDOT has applied the criteria of adverse effect to historic properties within the project's APE. The regulations implementing Section 106 of the National Historic Preservation Act define an effect as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligible for the National Register" [36CFR800.16(i)]. The effect is adverse when the alteration of a qualifying

characteristic occurs in a "manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" [36CFR800.5(a)]. Based on the supplemental cultural resources investigation completed for the project, the VDOT continues to affirm that the proposed project will have no effect on historic properties.

The VDOT invites you to review the enclosed materials and indicate your concurrence with our no effect determination recommendation by signing below. Please return the original signature to my attention within 30 days. If you have any questions or need additional information about this project, please do not hesitate to contact me at (540) 654-1737 or Raymond.Ezell@vdot.virginia.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Raymond Ezell". The signature is fluid and cursive, with the first name "Ray" being more prominent and the last name "Ezell" following in a similar style.

Raymond Ezell, RPA
Fredericksburg District Archaeologist

Enclosures

cc: /file97529
/Thomas Bland, Loudoun Historical Society
/Lori Kimball, Preservation Society of Loudoun County
/Cynthia Kunz, Northern Virginia Association for History
/Heidi Siebentritt, Loudoun County Planning
/Henry Ward, Metropolitan Washington Airport Authority

CONCURRENCE

.....

The Virginia Department of Historic Resources (DHR) concurs with the Virginia Department of Transportation's (VDOT): 1) definition of the project's expanded Area of Potential Effects (APE); 2) efforts to identify historic properties; 3) finding that the portions of archaeological sites **44LD169** and **44LD170** within the project APE do not meet the criteria for National Register of Historic Places (NRHP) eligibility in relation to Criteria A, B, C, and D; and architectural properties: **053-6340** and **053-6341** do not meet the criteria for National Register of Historic Places (NRHP) individual eligibility in relation to Criteria A, B, C, and D, nor do they contribute to an historic district if one were to exist on this project; 4) determination that the project is not located within the American Battlefield Protection Program's (ABPP) identified National Register potentially eligible battlefields; 5) recommendation that the proposed project will have no effect on historic properties; and, 6) recommendation that no additional archaeological and/or architectural investigation is necessary for VDOT Project 0606-053-983, P101 (UPC 97529); VDHR File No. 2012-0168.

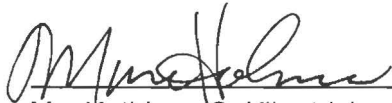
Ms. Kathleen S. Kilpatrick
Director, Virginia Department of Historic Resources
Virginia State Historic Preservation Officer

Date

CONCURRENCE

.....

The Virginia Department of Historic Resources (DHR) concurs with the Virginia Department of Transportation's (VDOT): 1) definition of the project's expanded Area of Potential Effects (APE); 2) efforts to identify historic properties; 3) finding that the portions of archaeological sites **44LD169** and **44LD170** within the project APE do not meet the criteria for National Register of Historic Places (NRHP) eligibility in relation to Criteria A, B, C, and D; and architectural properties: **053-6340** and **053-6341** do not meet the criteria for National Register of Historic Places (NRHP) individual eligibility in relation to Criteria A, B, C, and D, nor do they contribute to an historic district if one were to exist on this project; 4) determination that the project is not located within the American Battlefield Protection Program's (ABPP) identified National Register potentially eligible battlefields; 5) recommendation that the proposed project will have no effect on historic properties; and, 6) recommendation that no additional archaeological and/or architectural investigation is necessary for VDOT Project 0606-053-983, P101 (UPC 97529); VDHR File No. 2012-0168.



for _____
Ms. Kathleen S. Kilpatrick
Director, Virginia Department of Historic Resources
Virginia State Historic Preservation Officer

2 July 13

Date

DHR# 2012-0168



COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

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www.dhr.virginia.gov

June 29, 2015

Mr. B. Eric Almquist
Rummel, Klepper & Kahl, LLP
12600 Fair Lakes Circle, Suite 300
Fairfax, VA 22033

Re: NOAA Route 606 Easement
Loudoun County, VA
DHR File No. 2012-0168

Dear Mr. Almquist:

Thank you for initiating consultation with our office on the project referenced above. This NOAA undertaking involves the granting of easements in support of the widening of Route 606, relocation of testing facilities, and the construction of a new access road. We have previously reviewed portions of this project and provided comments directly to the Virginia Department of Transportation. DHR will review this undertaking under the same DHR File No. referenced above.

There are no known historic properties within the project's Area of Potential Effects (APE). Numerous previous studies have been completed in support of the widening of Route 606; however, much of the APE has not been previously surveyed. Given the presence of recorded archaeological sites in surrounding areas and the potential for similar resources within the APE, we recommend that a Phase I archaeological survey be conducted of all areas that may be impacted by construction-related activities, including stormwater facilities and temporary staging areas. Previously surveyed areas may be excluded from this study. No additional architectural survey is warranted. The survey must be conducted by a qualified archaeologist in accordance with the Secretary of the Interior's *Standards and Guidelines for Archeological Documentation* (48 FR 44734-37) and DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (October 2011). Two bound copies and one digital copy of the resulting report should be submitted to our office for review prior to any ground disturbance. Once we have the results of the survey, we will be able to advise you whether any further investigations and/or mitigative actions are warranted.

If you have any questions regarding these comments or recommendations, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Roger W. Kirchen".

Roger W. Kirchen, Director
Review and Compliance Division

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6408
Fax: (804) 862-6196

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Fax: (540) 387-5446

Northern Region Office
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Tel: (540) 868-7029
Fax: (540) 868-7033

February 18, 2016

Mr. Roger Kirchen, Director
Division of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

RE: NOAA Route 606 Easement
DHR File No 2012-0168
Supplemental Phase I Archaeological Survey and Phase II Archaeological Evaluation

Attn: Marc Holma

Dear Mr. Kirchen:

Please find attached two bound copies and one digital copy of the results of the Phase I Archaeological Survey and Phase II Archaeological Evaluation within the designated Area of Potential Effect (APE) at the National Oceanic and Atmospheric Administration's (NOAA) Sterling Field Support Center and Baltimore/Washington Weather Forecast Office in Loudoun County, as requested by the Virginia Department of Historic Resources. These reports are being submitted by Rummel, Klepper & Kahl, LLP. (RK&K) on behalf of NOAA and the Virginia Department of Transportation (VDOT). Rummel, Klepper & Kahl, LLP is serving as a consultant to NOAA for development of the Environmental Assessment and review of cultural resources. A Revised Environmental Assessment was previously completed by VDOT for the Federal Highway Administration (FHWA). Since this work is being completed as part of the Route 606 Widening project, VDOT and FHWA are copied on this submission.

The Supplemental Phase I Archaeological Survey was conducted by William & Mary Center for Archaeological Research under contract with Dewberry and VDOT. Based on the survey, one potentially eligible site for listing on the National Register of Historic Places (NRHP) was identified within the archaeological APE (44LD1726). Due to the expedited nature of the project, NOAA and VDOT agreed to move forward with additional Phase I testing to the west of the APE and Phase II testing at site 44LD1726 prior to DHR review of the initial Phase I report.

The Phase II Archaeological Evaluation of Site 44LD1726 was conducted by William & Mary Center for Archaeological Research under contract with Dewberry and VDOT. Based on the investigation, the site was found to lack sufficient integrity and research potential to provide important information regarding the Colony to Nation through New Dominion periods. Therefore, Site 44LD1726 is recommended not eligible for the NHRP under Criterion D. Criteria A-C are considered not applicable.

The additional Phase I work conducted by William & Mary west of the APE did not identify any additional archaeological resources.

NOAA and VDOT would like concurrence from the Virginia Department of Historic Resources (DHR) that 44LD1726 is not eligible for listing on the NRHP. Based upon previous coordination and the findings within this letter, VDOT and NOAA invite you to concur with the determination of no NRHP eligible resources within the APE. If you concur with the findings in this letter, please indicate this by signing the signature line at the end of this letter. We would appreciate your response within 30 days of receipt of this letter.



Please contact me at 703-259-3734 or Mr. Mark George with the NOAA Environmental Compliance Division at 303-497-3064. Thank you for your assistance on this proposed project.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Laura D. Wolfe'.

Laura D. Wolfe, AICP
Project Planner
Rummel, Klepper & Kahl, LLP.

Enclosures:

- NOAA Route 606 Easement DHR Coordination Initiation
- Supplemental Archaeological Survey of Approximately 35 Acres, Dulles Loop-Route 606 Project, Loudoun County, Virginia
- Archaeological Evaluation of Site 44LD1726 and Supplemental Survey of Approximately 9.5 Acres, Dulles Loop-Route 606 Project, Loudoun County, Virginia

CC:

Mark George, NOAA
Bethany Schwartz, NOAA
Shirlene Cleveland, VDOT
Sanjeev Suri, VDOT

John Muse, VDOT
Steven Kuntz, Dewberry
John Simkins, FHWA

Concurrence:

Roger Kirchen, VDHR

Date



COMMONWEALTH of VIRGINIA

Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Molly Joseph Ward
Secretary of Natural Resources

Julie V. Langan
Director

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www.dhr.virginia.gov

11 April 2016

Mr. Raymond Ezell
Virginia Department of Transportation
87 Deacon Road
Fredericksburg, Virginia 22405

Re: Improvements to Route 606
Loudoun County
VDOT Project # 0606-053-983, P101
DHR File # 2012-0168

Dear Mr. Ezell:

The Department of Historic Resources (DHR) has received for our review the reports "Supplemental Archaeological Survey of Approximately 35 Acres, Dulles Loop-Route 606 Project, Loudoun County, Virginia" (WMCAR 2015) and "Archaeological Evaluation of Site 44LD1726 and Supplemental Survey of Approximately 9.5 Acres, Dulles Loop-Route 606 Project, Loudoun County, Virginia" (WMCAR 2016), both prepared by William & Mary Center for Archaeological Research (WMCAR). It is our opinion that the fieldwork and reports meet applicable standards and guidelines. These studies identified four (4) archaeological locations and one (1) site. The locations are, by definition, not eligible for listing in the National Register of Historic Places (NRHP) and, therefore, no further consideration of these resources is warranted.

Site 44LD1726, an 18th through 20th century domestic occupation, was identified in the 2015 survey and formally evaluated for NRHP listing during the 2016 study. On 7 April 2016 the archaeological subcommittee of our Department's NRHP Eligibility Evaluation Team met to consider the eligibility of site 44LD1726. Based on the information provided, the committee concurs with the consultant that site 44LD1726 is not eligible for listing in the NRHP. No further consideration of this site is warranted and no additional archaeological study is recommended at this time.

If you have any questions regarding our comments, please contact me at (804) 482-6090.

Sincerely,

Marc Holma, Architectural Historian
Office of Review and Compliance

C: Mr. Eric Almquist, RK&K
Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6408
Fax: (804) 862-6196

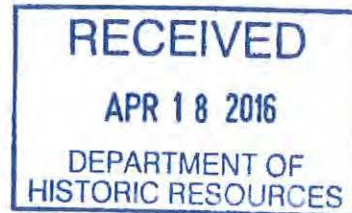
Eastern Region Office
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Northern Region Office
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Tel: (540) 868-7029
Fax: (540) 868-7033

April 14, 2016

Mr. Roger Kirchen, Director
Division of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221



RE: NOAA Route 606 Easement
DHR File No 2012-0168
Effect Determination

Attn: Marc Holma

Dear Mr. Kirchen:

The National Oceanic and Atmospheric Administration (NOAA) is undertaking a review of property easements requested by the Virginia Department of Transportation (VDOT) at our Sterling Field Support Center and Baltimore/Washington Weather Forecast Office in Loudoun County, Virginia (see **Attachment 1**). NOAA is completing an Environmental Assessment of VDOT's easement request. In accordance with the National Historic Preservation Act, as amended and its implementing regulations at 36 CFR 800.3, NOAA is coordinating the Section 106 process for this undertaking.

NOAA has coordinated with the Department of Historic Resources (DHR) on APE delineation, previously identified resources within the Area of Potential Effect (APE), and eligibility determination for Site 44LD1726 (see **Attachments 2, 3, and 4**). The easement boundaries are depicted on **Attachment 2**. No architectural or archaeological resources eligible for the National Register of Historic Places are present within the APE.

Based upon previous coordination, VDOT and NOAA invite you to concur with the determination of **no historic properties or archaeological resources affected** by the NOAA Route 606 Easement project. If you concur with the findings in this letter, please indicate this by signing the signature line at the end of this letter. We would appreciate your response within 30 days of receipt of this letter.

Please contact me at 703-259-3734 or Mr. Mark George with the NOAA Environmental Compliance Division at 303-497-3064. Thank you for your assistance on this proposed project.

Respectfully,

A handwritten signature in blue ink, appearing to read "Laura D. Wolfe".

Laura D. Wolfe
Project Planner
Rummel, Klepper & Kahl, LLP.

Enclosures:

- Attachment 1: Project Location Map
- Attachment 2: Architectural and Archaeological Sites within the APE
- Attachment 3: NOAA Route 606 Easement DHR Coordination Initiation Response Letter
- Attachment 4: NOAA Route 606 Easement DHR Eligibility Response Letter



CC:

Mark George, NOAA
Bethany Schwartz, NOAA
Shirlene Cleveland, VDOT

Sanjeev Suri, VDOT
John Muse, VDOT
Steven Kuntz, Dewberry

Concurrence:

A handwritten signature in blue ink, appearing to read 'R. Kirchen'.

Roger Kirchen, DHR

5/31/16
Date

APPENDIX D.

AGENCY COMMENTS ON DRAFT EA

Laura Wolfe

From: nhreview (DCR) <nhreview@dcr.virginia.gov>
Sent: Friday, April 01, 2016 9:32 AM
To: Laura Wolfe
Subject: Re: Agency Review Draft EA: NOAA Easement for VDOT Route 606 Widening - Request for more information

Follow Up Flag: Follow up
Flag Status: Flagged

Ms. Wolfe,

We received your request for a project review for the above mentioned project. However, before we can begin the review process we need a completed copy of our information services order form, which is available at the following link: <http://www.dcr.virginia.gov/natural-heritage/nhserviceform/>

The form will be automatically emailed to us once you hit the “submit” button at the bottom of the page. Once we have received the form, we will begin our review and return comments to you within 30 days.

If you have any questions, please feel free to contact me.

Thank you,

Elaine Yoch
Project Review Assistant
DCR-Division of Natural Heritage
600 East Main Street, 24th Floor
Richmond, VA 23219
804-371-2672



Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director



Rochelle Altholz
Deputy Director of
Administration and Finance

David C. Dowling
Deputy Director of
Soil and Water Conservation
and Dam Safety

Thomas L. Smith
Deputy Director of Operations

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

April 13, 2016

Nick Krause
Rummel, Klepper & Kahl, LLP
12600 Fair Lakes Circle, Suite 300
Fairfax, VA 22033

Re: NOAA Easement for VDOT Route 606 Widening

Dear Mr. Krause:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Broad Run – Route 607 Stream Conservation Unit (SCU) is located downstream from the project site. SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The Broad Run – Route 607 SCU has been given a biodiversity ranking of B5, which represents a site of general biodiversity significance. The natural heritage resource associated with this site is:

Lampsilis cariosa Yellow lampmussel G3G4/S2/NL/NL

The Yellow lampmussel ranges from Nova Scotia to Georgia in Atlantic slope drainages (NatureServe, 2009). In Virginia, it is recorded from the Roanoke, Chowan, James, York, and Potomac drainages. It is found in larger streams and rivers where good currents exist over sand and gravel substrates and in small creeks and ponds (Johnson, 1970).

Considered good indicators of the health of aquatic ecosystems, freshwater mussels are dependent on good water quality, good physical habitat conditions, and an environment that will support populations of host fish species (Williams et al., 1993). Because mussels are sedentary organisms, they are sensitive to water quality degradation related to increased sedimentation and pollution. They are also sensitive to habitat destruction through dam construction, channelization, and dredging, and the invasion of exotic mollusk species.

To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

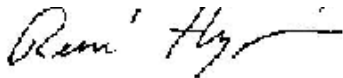
New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

A fee of \$95.00 has been assessed for the service of providing this information. Please find enclosed an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, Department of Conservation and Recreation, Division of Natural Heritage, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov.

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,



S. René Hypes
Project Review Coordinator



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

Fax: 804-698-4019 - TDD (804) 698-4021

www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

April 21, 2016

Mark George, P.E.
Safety & Environmental Compliance Office
National Oceanic and Atmospheric Administration
DSRC Room: GB137
325 Broadway
Boulder, CO 80305

RE: Comments on the Draft Environmental Assessment for the NOAA Easement for VDOT Route 606 Widening, Loudoun County (DEQ 16-075F).

Dear Mr. George:

The Commonwealth of Virginia has completed its review of the above-referenced document. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents submitted under the National Environmental Policy Act (NEPA) and responding to appropriate federal officials on behalf of the Commonwealth. This is in response to the March 2016 Draft Environmental Assessment (DEA) (received March 31, 2016) for the above referenced project. The following agencies participated in the review of this proposal:

Department of Environmental Quality
Department of Health (VDH)
Marine Resources Commission (VMRC)

In addition, the Department of Forestry, Department of Historic Resources, Department of Mines, Minerals, and Energy, the Department of Conservation and Recreation, the Department of Game and Inland Fisheries, the Department of Transportation, the Department of Agriculture and Consumer Services, Loudoun County and the Northern Virginia Regional Commission were invited to comment on the proposal.

PROJECT DESCRIPTION

The National Oceanic and Atmospheric Administration (NOAA) has submitted a Draft Environmental Assessment that examines the environmental impacts related to the proposed NOAA easement for the Virginia Department of Transportation (VDOT) Route 606 widening project in Loudoun County, Virginia. NOAA and the National Weather Service (NWS) operate the Baltimore/Washington Weather Forecast Office on a 230.4-acre parcel of land adjacent to Washington Dulles International Airport in the community of Sterling. The property is also home to the Sterling Field Support Center which is a NWS laboratory for testing, research, and operational evaluation of meteorological instrumentation. VDOT proposes to widen an existing five-mile stretch of Route 606 between Route 621 and Route 267 from two lanes to a four-lane divided roadway. To accommodate the roadway widening project VDOT has requested 12.3 acres of permanent easement and 10.8 acres of temporary easement from NOAA. In addition to the easement, the project includes utility relocation, stormwater management facilities, the relocation of the Automated Surface Observing System (ASOS), and a new entrance road located at the Route 606 and Ladbrook Drive intersection.

CONCLUSION

Provided activities are performed in accordance with the recommendations which follow in the Environmental Impacts and Mitigation section of this report, this proposal is unlikely to have significant effects on ambient air quality, water quality, important farmland, forest resources, and historic resources. It is unlikely to adversely affect species of plants or insects listed by state agencies as rare, threatened, or endangered.

ENVIRONMENTAL IMPACTS AND MITIGATION

1. Water Quality and Wetlands. According to the DEA (page 3-7), the project will permanently impact 18 linear feet of stream and 3.2 acres of wetland and temporarily impact 7 linear feet of stream and 0.3-acre of wetlands. Additionally there will be 17.2 acres of disturbed soil and 1.9 acres of additional impervious surfaces in the Horsepen Run watershed. In the Lenah Run-Broad Run watershed there will be 5.1 acres of disturbed soil and 0.7-acres of new impervious surface. A Joint Permit Application (JPA) was submitted to the U.S. Army Corps of Engineers, DEQ, and the Virginia Marine Resources Commission in January 2015.

1(a) Agency Jurisdiction. The State Water Control Board promulgates Virginia's water regulations covering a variety of permits to include the Virginia Pollutant Discharge Elimination System Permit (VPDES) regulating point source discharges to surface waters, Virginia Pollution Abatement Permit regulating sewage sludge, storage and land application of biosolids, industrial wastes (sludge and wastewater), municipal wastewater, and animal wastes, the Surface and Groundwater Withdrawal Permit, and the Virginia Water Protection (VWP) Permit regulating impacts to streams, wetlands, and other surface waters. The VWP permit is a state permit which governs wetlands, surface water, and surface water withdrawals and impoundments. It also serves as §401 certification of the federal Clean Water Act §404 permits for dredge and fill activities in waters of the U.S. The VWP Permit Program is under the Office of Wetlands and Stream Protection, within the DEQ Division of Water Permitting. In addition to central office staff that review and issue VWP permits for transportation and water withdrawal projects, the six DEQ regional offices perform permit application reviews and issue permits for the covered activities:

- Clean Water Act, §401;
- Section 404(b)(i) Guidelines Mitigation Memorandum of Agreement (2/90);
- State Water Control Law, Virginia Code section 62.1-44.15:20 *et seq.*; and
- State Water Control *Regulations*, 9 VAC 25-210-10.

1(b) Agency Findings. The VWP program at the DEQ Northern Regional Office (NRO) states that an individual VWP permit for this project has been issued effective September 4, 2015 (permit number 15-0076).

1(c) Requirements. The permittee must adhere to the requirements and permit conditions set forth in VWP Permit Number 15-0076, issued for this project.

2. Subaqueous Land Impacts. According to the DEA (page 3-7), 18 linear feet of stream will be permanently impacted and 7 linear feet will be temporarily impacted.

2(a) Agency Jurisdiction. The Virginia Marine Resources Commission regulates encroachments in, on or over state-owned subaqueous beds as well as tidal wetlands

pursuant to Virginia Code §28.2-1200 through 1400. For nontidal waterways, VMRC states that it has been the policy of the Habitat Management Division to exert jurisdiction only over the beds of perennial streams where the upstream drainage area is 5 square miles or greater. The beds of such waterways are considered public below the ordinary high water line.

2(b) Agency Finding. VMRC Permit #15-0076 was issued to VDOT's design build contractor, Shirley Contracting Company, LLC, in 2015 for the Route 606 widening project. The work associated with the proposed NOAA easement, however, does not involve an area currently regulated by VMRC.

2(c) Agency Conclusion. No additional authorization will be required from VMRC for the work area identified on the NOAA property. The project must comply with VMRC Permit #15-0076.

3. Erosion and Sediment Control and Stormwater Management. The DEA (page 3-5) states that the roadway widening project would disturb 22.3 acres of soils and that disturbed soils would be subject to wind and water erosion during construction. To mitigate these impacts, VDOT would utilize best management practices (BMPs) and prepare an erosion and sediment control plan to be implemented during construction. Applicable DEQ permit requirements would be adhered to and a stormwater management plan would also be developed.

3(a) Agency Jurisdiction. The DEQ Office of Stormwater Management administers the following laws and regulations governing construction activities:

- Virginia Erosion and Sediment Control (ESC) Law (§ 62.1-44.15:51 *et seq.*) and Regulations (9VAC25-840) (*VESCL&R*);
- Virginia Stormwater Management Act (§ 62.1-44.15:24 *et seq.*) (*VSWML*);
- Virginia Stormwater Management Program (VSMP) regulation (9VAC25-870) (*VSWMR*); and
- 2014 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Construction Activities (9VAC25-880).

In addition, DEQ is responsible for the Virginia Stormwater Management Program (VSMP) General Permit for Stormwater Discharges from Construction Activities related to Municipal Separate Storm Sewer Systems (MS4s) and construction activities for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program (9VAC25-890-40).

3(b) Requirements. The DEQ Office of Stormwater Management did not comment on the proposed project. Regulatory guidance on stormwater management and erosion and sediment controls is provided below.

(i) Erosion and Sediment Control Project-Specific Plan

VDOT projects that involve land-disturbing activities of equal to or greater than 10,000 square feet must comply with the most current version of the VDOT erosion and sediment control and stormwater management (SWM) Annual Standards and Specifications approved by DEQ. All regulated land-disturbing activities must have a project-specific ESC plan developed in accordance with the DEQ approved VDOT ESC and SWM Annual Standards and Specifications. All regulated land-disturbing activities associated with the project, including on and off site access roads, staging areas, borrow areas, stockpiles, and soil intentionally transported from the project must be covered by the project-specific ESC plan. Annual Standards and Specifications must be prepared in accordance with Virginia ESC Law and Regulations and the most current version of the *Virginia Erosion and Sediment Control Handbook*.

(ii) Stormwater Management Project-Specific Plan

VDOT projects that result in land-disturbing activities equal to or greater than one acre must comply with the most current version of the VDOT ESC and SWM Annual Standards and Specifications approved by DEQ. All regulated land-disturbing activities must have a project-specific SWM plan developed in accordance with the DEQ approved VDOT ESC and SWM Annual Standards and Specifications. Annual Standards and Specifications must be prepared in accordance with the Virginia Stormwater Management Act (VSMA) and the VSMP Permit Regulations.

(iii) Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (VAR10)

The operator or owner of a construction activity involving land disturbance of equal to or greater than 1 acre is required to register for coverage under the VAR10 permit and develop a project specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the General Permit and the SWPPP must address water quality and quantity in accordance with the *Virginia Stormwater Management Program Regulations*. General information and registration forms for the General Permit are available on DEQ's website at

www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx.

4. Air Pollution Control. The DEA (page 3-16) states that there may be temporary impacts to air quality as a result of construction activities. These impacts may include emissions from diesel-powered equipment, burning of debris, fugitive dust, and the use of cutback asphalt. Additionally there is the potential for damage to occur to NOAA instrumentation as a result of fugitive dust from the project.

4(a) Agency Jurisdiction. The DEQ Air Division, on behalf of the State Air Pollution Control Board, is responsible for developing regulations that implement Virginia's Air Pollution Control Law (Virginia Code §10.1-1300 et seq.). DEQ is charged with carrying

out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate DEQ regional office is directly responsible for the issuance of necessary permits to construct and operate all stationary sources in the region as well as monitoring emissions from these sources for compliance. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

The Air Division regulates emissions of air pollutants from industries and facilities and implements programs designed to ensure that Virginia meets national air quality standards. The most common regulations associated with major projects are:

- Open burning: 9 VAC 5-130 *et seq.*
- Fugitive dust control: 9 VAC 5-50-60 *et seq.*
- Permits for fuel-burning equipment: 9 VAC 5-80-1100 *et seq.*

4(b) Agency Findings. According to the DEQ Air Division, the project site is located in a designated ozone non-attainment area and an emission control area for the control of oxides of nitrogen (NO_x) and volatile organic compounds (VOCs).

4(c) Recommendation. VDOT should take all reasonable precautions to limit emissions of NO_x and VOCs, principally by controlling or limiting the burning of fossil fuels.

4(d) Requirements.

(i) Asphalt Paving.

In accordance with 9 VAC 5-45-760, there are limitations on the use of "cut-back" (liquefied asphalt cement, blended with petroleum solvents) that may apply to paving activities associated with the project. Moreover, there are time-of-year restrictions on its use during the months of April through October in VOC emission control areas.

(ii) Fugitive Dust.

During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

(iii) Open Burning.

If project activities include the open burning of construction material or the use of special incineration devices, this activity must meet the requirements under 9 VAC 5-130 *et seq.* of the *Regulations* for open burning, and may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. The applicant should contact Loudoun County officials to determine what local requirements, if any, exist.

5. Solid and Hazardous Wastes and Hazardous Materials. The DEA (page 3-13) states that there are no Resource Conservation and Recovery Act (RCRA), Superfund, or Brownfield sites on the NOAA property. A petroleum release has occurred on the property in the past and there are seven aboveground storage tanks (ASTs) on the site.

5(a) Agency Jurisdiction. On behalf of the Virginia Waste Management Board, the DEQ Division of Land Protection and Revitalization is responsible for carrying out the mandates of the Virginia Waste Management Act (Virginia Code §10.1-1400 *et seq.*), as well as meeting Virginia's federal obligations under the Resource Conservation and Recovery Act and the Comprehensive Environmental Response Compensation Liability Act, commonly known as Superfund. The DEQ Division of Land Protection and Revitalization also administers those laws and regulations on behalf of the State Water Control Board governing Petroleum Storage Tanks (Virginia Code §62.1-44.34:8 *et seq.*), including Aboveground Storage Tanks (9VAC25-91 *et seq.*) and Underground Storage Tanks (9VAC25-580 *et seq.* and 9VAC25-580-370 *et seq.*), also known as 'Virginia Tank Regulations', and § 62.1-44.34:14 *et seq.* which covers oil spills.

Virginia:

- Virginia Waste Management Act, Virginia Code § 10.1-1400 *et seq.*
- Virginia Solid Waste Management Regulations, 9 VAC 20-81
 - (9 VAC 20-81-620 applies to asbestos-containing materials)
- Virginia Hazardous Waste Management Regulations, 9 VAC 20-60
 - (9 VAC 20-60-261 applies to lead-based paints)
- Virginia Regulations for the Transportation of Hazardous Materials, 9 VAC 20-110.

Federal:

- Resource Conservation and Recovery Act (RCRA), 42 U.S. Code sections 6901 *et seq.*

- U.S. Department of Transportation *Rules for Transportation of Hazardous Materials*, 49 *Code of Federal Regulations*, Part 107
- Applicable rules contained in Title 40, *Code of Federal Regulations*.

5(b) Agency Findings. DEQ's Division of Land Protection and Revitalization (DLPR) conducted a cursory database search and Geographic Information System search (500-foot radius) along the project route and did not identify any waste sites of concern in the project area.

5(c) Requirements.

(i) Contaminated Waste

Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations.

(ii) Fuel Storage Tanks

The removal, relocation or closure or installation/operation of any regulated petroleum storage tanks, aboveground storage tank (AST) or underground storage tank (UST), must be conducted in accordance with the requirements of the Virginia Tank Regulations 9 VAC 25-91-10 *et seq.* (AST) and / or 9 VAC 25-580-10 *et seq.* (UST).

(iii) Petroleum Release Sites

If evidence of a petroleum release is discovered during implementation of this project, it must be reported to DEQ, as authorized by Virginia Code § 62.1-44.34.8 through 9 and 9 VAC 25-580-10 *et seq.*

6. Pesticides and Herbicides. DEQ recommends that the use of herbicides or pesticides for construction or landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used to the extent feasible. Contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.

7. Public Water Sources. The DEA (page 3-9) states that no portion of the NOAA property is located within a watershed for a public water supply or in close proximity to a water supply intake. No water supply groundwater wells are located within or near the property.

7(a) Agency Jurisdiction. The Virginia Department of Health (VDH) Office of Drinking Water reviews projects for the potential to impact public drinking water sources (groundwater wells, springs and surface water intakes). VDH administers both federal and state laws governing waterworks operation.

7(b) Agency Findings. VDH-ODW made the following comments:

- There are no public groundwater wells within a 1-mile radius of the project site.
- There are no surface water intakes located within a 5-mile radius of the project site.
- The project is within the watershed of the Fairfax County Water Authority's Potomac River intake.

7(c) Requirement. Potential impacts to public water distribution systems must be verified by the local utility.

7(d) Recommendation. Best Management Practices should be employed on the project site including Erosion & Sedimentation Controls as well as Spill Prevention Controls & Countermeasures.

7(e) Conclusion. There may be impacts to public drinking water sources as a result of this project unless the mitigation efforts outlined above are implemented.

8. Transportation Impacts. The widening of Route 606 is proposed to alleviate traffic and congestion issues on the road and result in an improved level of service for the 2036 build-out conditions. The proposed traffic signal at Ladbrook Drive as well as turn lanes would increase the safety of ingress and egress onto and off of the NOAA property. The construction activity would cause temporary traffic congestion however VDOT will create a plan to manage traffic patterns during construction (EA, page 3-14).

8(a) Agency Jurisdiction. The Virginia Department of Transportation (VDOT) provides comments pertaining to potential impacts to existing and future transportation systems.

8(b) Agency Findings. The VDOT Northern Virginia District Office reviewed the EA and noted that:

- Overhead utilities relocated due to the Route 606 widening meet the safety protection radii requirements of NOAA's weather balloon operations;
- The widening Route 606 will not exacerbate flooding that currently occurs on the NOAA property;
- The NOAA facility is served with access to Route 606 via Thunder Road and Weather Service Road. It is unclear why a new entrance at the Ladbrook Drive intersection is needed. The alignment of the new entrance road encroaches upon the 500-foot radius of protection for the ASOS location and adds impervious surface to the facility; and
- The EA states on pages 3-16 and 3-19 that since the preparation of the 2013 EA an access road and traffic signal have been added to Route 606 at Ladbrook Drive and that the current "T" intersection is converted into a four-way intersection. VDOT does not have record of this addition and suggests that there is no new access road in the plans and that the intersection remains a "T".

intersection.

8(c) Agency Recommendation. Coordinate with VDOT regarding the apparent discrepancy related to the proposed new access road to the NOAA property at Ladbrook Road.

9. Pollution Prevention. DEQ advocates that principles of pollution prevention be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source.

9(a) Recommendations. We have several pollution prevention recommendations that may be helpful in the construction of this project and in the operation of the facility:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that VDOT is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and it recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and EMS. For more information, contact DEQ's Office of Pollution Prevention, Meghann Quinn at (804) 698-4021.

REGULATORY AND COORDINATION NEEDS

1. Surface Waters and Wetlands. A Virginia Water Protection Permit issued by the DEQ Northern Regional Office was required pursuant to Virginia Code §62.1-44.15:20 for surface water and wetlands impacts associated with the project. For additional information and coordination related to VWP Permit No. 15-0076, contact DEQ-NRO, Trisha Beasley at (703) 583-3940.

2. Erosion and Sediment Control and Stormwater Management.

2(a) Erosion and Sediment Control and Stormwater Management. VDOT must comply with the most current version of the VDOT ESC Annual Standards and Specifications approved by DEQ. All regulated land-disturbing activities must have a project-specific ESC and SWM plan developed in accordance with the DEQ approved VDOT ESC Annual Standards and Specifications. Annual Standards and Specifications must be prepared in accordance with VESCL&R and the most current version of the *Virginia Erosion and Sediment Control Handbook*.

Erosion and sediment control, and stormwater management requirements should be coordinated with the DEQ Northern Regional Office, Kelly Vanover at (804) 837-1073.

2(b) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities (VAR10). For projects involving land-disturbing activities of equal to or greater than one acre the applicant is required to register for coverage under the Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (9 VAC 25-870-1 *et seq.*). Specific questions regarding the Stormwater Management Program requirements should be directed to DEQ, Holly Sepety at (804) 698-4039.

3. Air Quality Regulations. This project is subject to air regulations administered by the Department of Environmental Quality. The following sections of the Code of Virginia and Virginia Administrative Code (VAC) are applicable:

- asphalt paving operations (9 VAC 5-45-780 *et seq.*)
- fugitive dust and emissions control (9 VAC 5-50-60 *et seq.*); and
- open burning restrictions (9 VAC 5-130 *et seq.*).

Contact Loudoun County fire officials to obtain information on local requirements pertaining to open burning. For more information and coordination contact DEQ-NRO, James LaFratta at (703) 583-3928.

4. Solid and Hazardous Wastes. For additional information concerning location and availability of suitable waste management facilities in the project area or if free product, discolored soils, or other evidence of contaminated soils are encountered, contact DEQ-NRO, Richard Doucette at (703) 583-3813.

5. Wildlife Resources. DGIF maintains a database (<http://vafwis.org/fwis/>) of wildlife locations, including threatened and endangered species, trout streams and anadromous fish waters.

6. Public Water Supply and Sanitary Sewer.

Coordinate with the local utility to verify potential impacts to the public water distribution

NOAA Easement for VDOT Route 606 Widening
DEA, 16-075F

system and the sanitary sewer collection system (Loudoun Water, 571-291-7880).

7. Transportation Impacts. Coordinate with the VDOT Northern Virginia District Office (Cina Dabestani, 703-259-2991) regarding their comments and recommendation.

Thank you for the opportunity to review and respond to the draft Environmental Assessment for the NOAA Easement for VDOT Route 606 Widening. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4204 or Janine Howard at (804) 698-4299 for clarification of these comments.

Sincerely,



Bettina Sullivan, Program Manager
Environmental Impact Review

Ec: Amy Ewing, DGIF
Keith Tignor, VDACS
Robbie Rhur, DCR
Greg Evans, DOF
Roy Soto, VDH
David Spears, DMME
Roger Kirchen, DHR
Tony Watkinson, VMRC
Chip Ray, VDOT
Tim Hemstreet, Loudoun County
G. Mark Gibb, Northern Virginia Regional Commission
Mark George, NOAA
Laura Wolfe, RK&K

Howard, Janine (DEQ)

From: Owen, Randy (MRC)
Sent: Thursday, April 14, 2016 6:27 AM
To: Howard, Janine (DEQ)
Cc: Woodward, Jay (MRC)
Subject: FW: NEW PROJECT NOAA RT 606 16-075F

VMRC Permit #15-0076 was issued to VDOT's design build contractor, Shirley Contracting Company, LLC, in 2015 for the Route 606 widening project. The work associated with the proposed NOAA easement, however, does not involve an area currently regulated by VMRC. As such, no additional authorization will be required from this office for the work area identified on the NOAA property.

From: Woodward, Jay (MRC)
Sent: Thursday, March 31, 2016 4:39 PM
To: Owen, Randy (MRC)
Cc: Watkinson, Tony (MRC)
Subject: FW: NEW PROJECT NOAA RT 606 16-075F

Randy,
Unless I am wrong, this looks like a VDOT/NOAA situation. If I am incorrect, please advise and I will respond for VMRC.
Thank you,
Respectfully,

Jay Woodward
Environmental Engineer, Sr.
Habitat Management Division
Virginia Marine Resources Commission
2600 Washington Ave., 3rd Floor
Newport News, VA 23607
Office (757) 247-8032
Mobile (757) 504-7009
jay.woodward@mrc.virginia.gov
Website www.mrc.virginia.gov

From: Watkinson, Tony (MRC)
Sent: Thursday, March 31, 2016 4:24 PM
To: Woodward, Jay (MRC)
Subject: FW: NEW PROJECT NOAA RT 606 16-075F

Jay,
This does not appear to involve any submerged lands that fall under our jurisdiction.

Tony

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: Janine L. Howard

DEQ - OEIA PROJECT NUMBER: DEQ #16-075F

PROJECT TYPE: STATE EA / EIR FEDERAL EA / EIS SCC
 CONSISTENCY DETERMINATION

PROJECT TITLE: Easement for VDOT Route 606 Widening

PROJECT SPONSOR: National Oceanic & Atmospheric Administration

PROJECT LOCATION: OZONE NONATTAINMENT
AND EMISSION CONTROL AREA FOR NOX & VOC

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: CONSTRUCTION
 OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E – STAGE I
2. 9 VAC 5-45-760 et seq. – Asphalt Paving operations
3. 9 VAC 5-130 et seq. – Open Burning
4. 9 VAC 5-50-60 et seq. Fugitive Dust Emissions
5. 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to _____
6. 9 VAC 5-60-300 et seq. – Standards of Performance for Toxic Pollutants
7. 9 VAC 5-50-400 Subpart _____, Standards of Performance for New Stationary Sources, designates standards of performance for the _____
8. 9 VAC 5-80-1100 et seq. of the regulations – Permits for Stationary Sources
9. 9 VAC 5-80-1605 et seq. Of the regulations – Major or Modified Sources located in PSD areas. This rule may be applicable to the _____
10. 9 VAC 5-80-2000 et seq. of the regulations – New and modified sources located in non-attainment areas
11. 9 VAC 5-80-800 et seq. Of the regulations – State Operating Permits. This rule may be applicable to _____

COMMENTS SPECIFIC TO THE PROJECT:

All precautions are necessary to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x).



(Kotur S. Narasimhan)
Office of Air Data Analysis

DATE: April 7, 2016



MEMORANDUM

TO: Janine Howard, DEQ/EIR Environmental Program Planner
FROM: Katy Dacey, DLPR Review Coordinator
DATE: April 7, 2016
COPIES: Sanjay Thirunagari, DLP&R Review Manager
EIR File
SUBJECT: EIR Proj No 16-075F- Easement for VDOT Route 606 Widening, Sterling, VA 20166 – Review Comments

The Division of Land Protection & Revitalization has completed its review of the Environmental Impact Report regarding the Easement for VDOT Route 606 Widening in Sterling, VA 20166.

The project scope: Permanent easement request from NOAA for property for widening of two to four-lanes divided roadway of an existing five-mile stretch of Route 606, between Route 621 and 267

We have provided comments below concerning potential waste issues and environmental resources that could be affected and which may be impacted by this proposed project. The submittal addressed potential solid and/or hazardous waste issues. The submittal indicated a search of waste-related databases. The DLPR staff has conducted a cursory review of its database files, including a GIS database search (500 foot radius) of along the project site route and determined the information below.

No waste sites were located in the project area.

The staff's summary comments are as follows:

Hazardous Waste Facilities –none in close proximity to the project site

CERCLA Sites – none in close proximity to the project site

The following websites may prove helpful in locating additional information for these identification numbers: <http://www.epa.gov/superfund/sites/cursites/index.htm> or http://www.epa.gov/enviro/html/rcris/rcris_query_java.html.

FUDs Sites – none

Solid Waste Facilities – none

VRP Sites - none

Petroleum Release Sites – none in close proximity to the project site

(Note: Dates above are the latest PC Database edit dates of the specific petroleum contamination (PC) Case Nos.)

Please note that the DEQ's PC case files of the PC Case Nos., within 100 feet of the proposed project are identified above and these petroleum releases should be evaluated by the project engineer or manager to establish the exact location of the release and the nature and extent of the petroleum release and the potential to impact the proposed project. The facility representative should contact the DEQ's Northern Virginia Regional Office (703-583-3800) Tanks Program for further information and the administrative records of the PC cases which are in close proximity to the proposed project.

GENERAL COMMENTS

Soil, Sediment, and Waste Management

Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-81); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Part 107. Questions may be directed to Ms. Kathryn Perszyk at the Northern Virginia Regional Office (703-583-3856).

Pollution Prevention – Reuse - Recycling

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Katy Dacey, Environmental Specialist, at (804) 698-4274.

Howard, Janine (DEQ)

From: Warren, Arlene (VDH)
Sent: Tuesday, April 12, 2016 6:00 PM
To: Howard, Janine (DEQ)
Cc: Soto, Roy (VDH)
Subject: RE: NEW PROJECT NOAA RT 606 16-075F

Project Name: **Easement for VDOT Route 606 Widening**
Project #: 16-075F
UPC #: N/A
Location: Loudoun County

VDH – Office of Drinking Water has reviewed the above project. Below are our comments as they relate to proximity to public drinking water sources (groundwater wells, springs and surface water intakes). Potential impacts to public water distribution systems or sanitary sewage collection systems must be verified by the local utility.

There are no public groundwater wells within a 1 mile radius of the project site.

There are no surface water intakes located within a 5 mile radius of the project site.

The project is within the watershed of the following public surface water sources (intakes where the project falls within 5 miles into their watershed are formatted in **bold**):

PWSID	SYSNAME	FACNAME
6059501	FAIRFAX CO. WATER AUTHORITY	INTAKE (POTOMAC RIVER)

Best Management Practices should be employed on the project site including Erosion & Sedimentation Controls as well as Spill Prevention Controls & Countermeasures.

There may be impacts to public drinking water sources due to this project if the mitigation efforts outlined above are not implemented.

Regards,

Arlene Fields Warren

Office of Drinking Water
Virginia Department of Health
109 Governor Street
Richmond, VA 23220
(804) 864-7781

From: Fulcher, Valerie (DEQ)
Sent: Thursday, March 31, 2016 4:10 PM
To: dgif-ESS Projects (DGIF); Tignor, Keith (VDACS); Rhur, Robbie (DCR); odwreview (VDH); Dacey, Katy (DEQ); Narasimhan, Kotur (DEQ); Gavan, Larry (DEQ); Sepety, Holly (DEQ); Burstein, Daniel (DEQ); Kirchen, Roger (DHR); Spears, David (DMME); Evans, Gregory (DOF); Watkinson, Tony (MRC); Ray, Alfred C. (VDOT); Cromwell, James R. (VDOT); Jordan, Elizabeth (VDOT); gmg@novaregion.org; coadmin@loudoun.gov
Cc: Howard, Janine (DEQ)
Subject: NEW PROJECT NOAA RT 606 16-075F

Howard, Janine (DEQ)

From: Burstein, Daniel (DEQ)
Sent: Tuesday, April 05, 2016 10:44 AM
To: Howard, Janine (DEQ)
Subject: RE: NOAA - Easement for VDOT Route 606 Widening, Loudoun County, DEQ #16-075F-Review

NRO comments regarding the Draft Environmental Assessment for the NOAA - Easement for VDOT Route 606 Widening located in Loudoun County, Virginia are as follows:

Land Protection Division – The project manager is reminded that if any solid or hazardous waste is generated/encountered during construction, NOAA would follow applicable federal, state, and county regulations for their disposal.

Air Compliance/Permitting - The project manager is reminded that during the construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should any open burning or use of special incineration devices be employed in the disposal of land clearing debris during demolition and construction, the operation would be subject to the Open Burning Regulation 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100.

Virginia Water Protection Permit (VWPP) Program – The project manager is reminded that project activities shall follow the requirements set forth in the VWP Individual Permit No. 15-0076, with the effective date of September 4, 2015.

Water Permitting/VPDES Program/Stormwater: The project manager is reminded to follow all applicable regulations related to stormwater management and erosion and sediment controls, including the requirements set forth in the VPDES Construction General Permit (VAR10), with the effective date of July 1, 2014.

Daniel Burstein
Regional Enforcement Specialist, Senior II
Virginia Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193
Phone: (703) 583-3904
daniel.burstein@deq.virginia.gov



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VIRGINIA 22030

CHARLES A. KILPATRICK
COMMISSIONER

April 19, 2016

Ms. Janine Howard

Virginia Department Environmental Quality

629 East Main Street

Richmond, VA 23219

RE: VA 606 Widening - NEW PROJECT NOAA RT 606 16-075F

Dear Ms. Howard:

Thank you for referring the above cited project to the Virginia Department of Transportation (VDOT) for review and comment.

VDOT is requesting permanent and temporary easements on NOAA property for the Route 606 widening. NOAA's Environmental Assessment states the purpose of preparing the NEPA document "*is to analyze the potential environmental impacts of responding to VDOT's easement request in a manner that is consistent with the operational needs of the WFO and SFSC.*" The EA identifies actions to meet operation needs of their WFO/SFSC include:

- Utility relocation: overhead utilities relocated due to the Route 606 widening meet the safety protection radii requirements of their weather balloon operations of the facility. No further comment.
- Stormwater management (SWM) facilities: any additional development must take into account flooding and stormwater concerns on NOAA property. The Route 606 widening project includes construction of SWM facilities to detain runoff from the roadway from flooding of NOAA property. However, the EA notes mitigation of existing flooding on NOAA property from "off-site sources" which has no relevance to the VDOT's easement request since the improved Route 606 will not exacerbate flooding that currently occurs

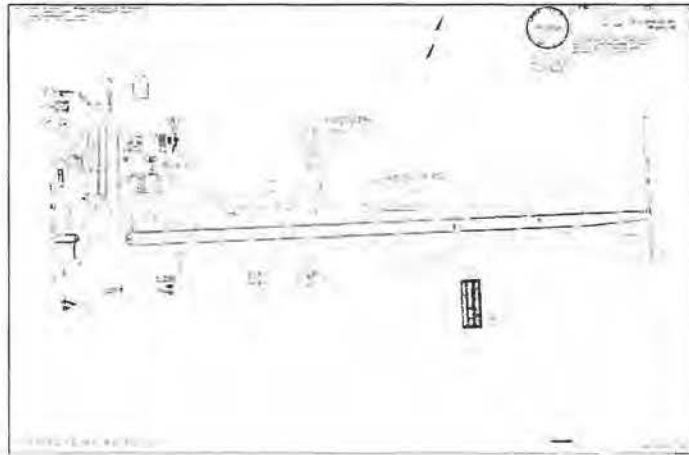
on the NOAA facility. This assumption is confirmed with the following statement in the EA, "the benefits that additional SWM retention/detention would provide for managing the site's current water quality would not be realized" ..

- Relocation of the Automated Surface Observing System (ASOS): The EA states the ASOS "generally require(s) a 500-foot radius of protection to ensure the equipment is not affected by outside variables." The EA does not identify whether the 500-foot requirement is attained in the existing ASOS location under the existing condition.
- Relocation and construction of a new entrance road located at the Route 606 and Ladbrook Drive intersection: It is unclear why a new entrance road is needed to for "safe and convenient access" to the NOAA facilities which are already served with access to Route 606 via Thunder Road and Weather Service Road. The Route 606 widening design took both access points into consideration to maintain access to the improved Route 606 road facility and the relation to the VDOT's request for easements is not clarified. The alignment of the new entrance road not only has the consequence of encroaching upon the 500-foot radius of protection for the ASOS location, a new entrance road adds addition impervious pavement on the NOAA facility that appears of have an inadequate on-site drainage system.
- Noise: the EA discusses the environmental setting for noise and references FHWA's noise regulations, 23 CFR 772, and VDOT's State Noise Abatement Policy. The intent of these regulations and policy is to identify and mitigate for traffic noise impacts for certain categories of land use activity (defined by the FHWA's Noise Abatement Criteria) at exterior noise-sensitive receptor locations of frequent human use; the NOAA facilities were not considered noise-sensitive receptors warranting noise abatement consideration. Without any traffic noise modeling to support the statement, the EA alleges "the WFO facility may experience an increase in ambient noise levels . . . [which] could be discernable to WFO officials that must work outside when they launch upper air balloons, as well as NOAA officials setting up equipment at certain test bed areas." Further, the environmental setting text in the EA focuses on traffic noise and there is no mention of the current aviation noise from nearby Washington Dulles International Airport experienced by officials.

In addition, following correction is required:

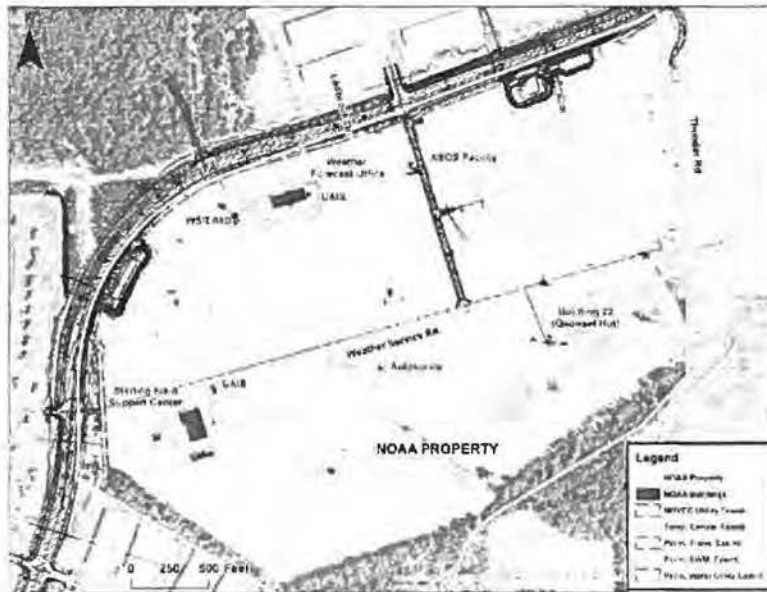
- On Pages 3-16 and 3-19 of the EA document, it's indicated "Since the preparation of the 2013 EA, an access road and associated traffic signal have

been added to the Route 606 design at Ladbrook Drive. The Engineer of Record does not expect impacts to the operation of Route 606 or Ladbrook Drive because of the conversion of the current "T" intersection to a full four-way intersection". However, according to the plan we have seen (Sheet 49(17) for the project w/ UPC97529 is shown below), there is no addition of the access road and it's still a T intersection. It is suggested to further verify this.



BACKGROUND- An Environmental Assessment (EA) has been prepared in accordance with NEPA implementing regulations at 40 CFR Sections 1500-1508, and procedures documented in NOAA Administrative Order 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (amended May 20, 1999). This EA evaluates the environmental impact of the proposed widening of the existing five-mile stretch of Route 606, between Route 621 and Route 267, from two lanes to a four-lane median divided roadway. To accommodate this project, VDOT has requested that NOAA grant 12.3 acres of permanent easement and 10.8 acres of temporary easement to VDOT, which includes 1.2 acres of NOVEC utility easements, on 22.3 acres of NOAA property.

The following figure shows both the permanent and the temporary easement for the proposed widening of VA 606 that VDOT has requested.



Should you have any question about this memorandum, please feel free to contact me directly.

Sincerely,

Cina S. Dabestani

Sr. Transportation Engineer

Cina.Dabestani@VDOT.Virginia.GOV

703 . 259 . 2991

Cc:

Maria Sinner, Prog Admin Manager III, VDOT NoVa

Norman Withaker, Prog Admin Manager III, VDOT NoVa

Andrew Beacher, Prog Admin Specialist III, VDOT NoVa

Jim Cromwell, Prog Admin Specialist III, Central Office

Alfred C. Ray, Environmental Specialist II, Central Office

Antonios R. Estefanous, Prog Admin Manager III, VDOT NoVa

Elizabeth Jordan, Environmental Program Planner, Richmond, Va



**U.S. Department
of Transportation**
Federal Aviation
Administration

Washington Airports District Office
23723 Air Freight Lane, Suite 210
Dulles, Virginia 20166
Telephone: (703) 661-1345
FAX: (703) 661-1370

April 27, 2016

Ms. Laura D. Wolf
Rummel, Klepper & Kahl, LLP
12600 Fair Lakes Circle, Suite 300
Fairfax, VA 22033

Re: Draft Environmental Assessment
NOAA Easement for Virginia Department of Transportation Route 606 Widening

Dear Ms. Wolf:

The Federal Aviation Administration (FAA) conducted a preliminary review of the Draft Environmental Assessment for the proposed NOAA easement for the Virginia Department of Transportation Route 606 Widening project. The FAA did not identify any impacts from the Proposed Action on the Washington Dulles International Airport or adjacent FAA facilities. The FAA does not have any comments.

Thank you for the opportunity to review the document.

Should you have any questions concerning this matter please do not hesitate to contact Ms. Susan Stafford (304) 252-6216 x130 or via email susan.stafford@faa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Thys".

Matthew J. Thys
Manager, Washington Airports District Office
Federal Aviation Administration

Environmental Assessment Summary and Finding of No Significant Impact for National Oceanic and Atmospheric Administration Easement for Virginia Department of Transportation Route 606 Widening

ENVIRONMENTAL ASSESSMENT SUMMARY

PURPOSE AND NEED

The National Oceanic and Atmospheric Administration (NOAA) has received an easement request from the Virginia Department of Transportation (VDOT) on 22.3 acres of land adjacent to Route 606 at its Sterling, Virginia property (NOAA property). NOAA's Sterling Field Support Center (SFSC) and Weather Forecast Office (WFO) are located on the property.

The easement request comes as part of VDOT's Route 606 Reconstruction Project, with the stated purpose to "improve the capacity and safety of a heavily trafficked roadway and to provide a critical leg of the proposed Dulles Loop by widening the existing two lane roadway to a four lane roadway with divided median and signalized intersections".

The following operational needs of the SFSC and WFO were considered in determining how best to respond to VDOT's easement request.

- Facility Access. Access to both northbound and southbound Route 606 needs to be safe and convenient.
- Weather Balloon Launches. Weather balloon launches from the property must be able to continue safely.
- Drainage. Any additional development must take into account flooding and stormwater concerns on the property.
- Equipment Protection. Sensitive equipment on the property should not be affected.
- Continual Operations. The NOAA facilities need to be able to operate 24 hours a day, 7 days a week during and after the VDOT highway project.

PROPOSED ACTION

Under the Proposed Action, NOAA would grant VDOT a total of 12.3 acres of permanent easement and 10.8 acres of temporary easement on 22.3 acres of land¹. The Proposed Action includes 7.1 acres of permanent transportation easement for operational, capacity, and safety improvements on Route 606, 3.9 acres of permanent stormwater management (SWM) easement, 1.2 acres of permanent Northern Virginia Electric Cooperative (NOVEC) easement, and 0.1 acres of permanent water utility easement. The Proposed Action also includes 10.8 acres of temporary easement for construction of Route 606 and a new access road to NOAA's property,

¹ The temporary and permanent easement acreages are larger than the total land footprint that would be used by VDOT. This is due to the NOVEC and water utility easements overlapping the VDOT temporary and permanent construction easements. The easement numbers are given for land transfer purposes and the footprint is used to quantify impacts.

replacement of culverts, and the relocation of two Automated Surface Observing Systems (ASOS).

As a result of the widening, VDOT would realign the entrance to Weather Service Road and associated access roads, require NOVEC to relocate the existing overhead utility lines in four locations, and work with Loudoun Water to provide a water utility line near Thunder Road.

VDOT would require 0.3 acres of permanent and 8.3 acres of temporary easement on the NOAA property for construction of an access road and the relocation of the ASOS. To ensure safe access to the NWS property, VDOT would provide a new, signalized entrance to the NOAA property at Ladbrook Drive and a new roadway connecting Weather Service Road to Route 606 at the Ladbrook Drive intersection. The alignment of the access road would require the extension of an existing road running east/west between Thunder Road and the existing ASOS. The widening of Route 606 requires the two ASOS test units nearest to Route 606 be relocated. The relocation includes moving the existing ASOS equipment; installing new rails, pads, and utility connections; creating two parking spaces near the testing equipment; repaving the road to the ASOS; and removing the Quonset hut located at the new ASOS location. New underground utility lines would be installed from the nearby Autosonde/radomes to the proposed ASOS relocation site.

Two stormwater (SWM) facilities would be constructed on the NOAA property to address increased impervious surface from widening Route 606. One additional smaller SWM facility would be built to address current issues created by runoff from the industrial park north of Route 606 and potential future flooding and drainage issues on the NOAA property. Two culverts along Weather Service Road would be replaced and new culverts would be placed underneath the proposed access road to limit impacts on existing hydrology.

With the Proposed Action, NOAA would be responsive to VDOT's request for an easement, and the Route 606 Project would be able to proceed. Furthermore, operations at the NOAA property would continue and VDOT would provide improvements to the NOAA property to ensure the Route 606 Project would not significantly impact NOAA's operational needs

NO ACTION ALTERNATIVE

Under the No Action Alternative, NOAA would not grant the permanent and temporary easements to VDOT for the Route 606 Reconstruction Project or for the operational improvements to the NOAA property. The No Action Alternative would result in the continuation of the present operational conditions at the NOAA facilities and the present transportation conditions on Route 606. VDOT would not widen Route 606 on the NOAA property, build a new signalized entrance to the NOAA property at Ladbrook Drive, relocate the two ASOS, realign the intersection of Route 606 at Weather Service Road, construct new SWM facilities on the NOAA property, or relocate utilities.

If NOAA does not grant VDOT the easement, then operations at the NOAA property (including access and weather balloon launches) would remain the same. However, NOAA would not be responsive to VDOT's request for an easement, and the Route 606 Reconstruction Project would

not be able to proceed based on its current design. Furthermore, the flooding and stormwater issues on the NOAA property would not be addressed as part of this Project.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

NOAA prepared an Environmental Assessment (EA) analyzing the Proposed Action in conformance with procedural requirements of the National Environmental Policy Act of 1969 (NEPA). The EA adheres to requirements of NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act (amended May 20, 1999).

Based on the analysis contained in this EA, the Proposed Action could be implemented without causing significant environmental effects. There would be changes to the quality of the environment- there would be minor impacts to geology and soils, water resources, water quality, transportation, air quality, noise, and utilities. However, through the application of measures described in the EA, the impacts would be mitigated to less than significant levels. The EA analyzed the following resources:

- Land Use
- Geology and Soils
- Water Resources
- Water Quality
- Floodplains
- Coastal Resources
- Farmlands
- Hazardous Materials
- Transportation
- Air Quality
- Noise
- Biological Resources
- Cultural Resources
- Visual Quality
- Recreational Resources
- Socioeconomic/Environmental Justice
- Utilities and Energy Consumption
- Indirect Effects and Cumulative Impacts

The No Action Alternative would not result in significant effects on environmental resources or NOAA’s present operations; however, the No Action Alternative also potentially would not alleviate present and future traffic conditions on Route 606. The following is a summary of anticipated impacts and proposed mitigation measures for each resource areas under the Proposed Action:

Resource	Anticipated Impacts	Proposed Mitigation
Land Use	<ul style="list-style-type: none"> • 22.3 acres of land • 12.3 acres permanent easement • 10.8 acres temporary easement • 1,228 feet new access road added • 3.3 acres SWM ponds added • Utility and ASOS relocations • Easements and design are compatible with existing and planned land uses 	<ul style="list-style-type: none"> • No mitigation required

Resource	Anticipated Impacts	Proposed Mitigation
Geology and Soils	<ul style="list-style-type: none"> • 22.3 acres of disturbed soil • 2.6 acres of impervious surface added • 2.6 acres of vegetated soils converted • 13.2 acres Prime Farmland soil impact • 9.1 acres hydric soil impact 	<ul style="list-style-type: none"> • BMP and ESC plan • VDOT approved SWM plan • Adherence to DEQ permit requirements
Water Resources	<ul style="list-style-type: none"> • 18 linear feet permanent stream impact • 7 linear feet temporary stream impact • 3.2 acres of permanent wetland impact • 0.3 acres of temporary wetland impact • Reestablishment of flow regimes • Mitigation of existing and potential flooding • Collection/detention of stormwater 	<ul style="list-style-type: none"> • Adherence to USACE, DEQ, and VMRC permit conditions • Utilization of regulatory agency approved mitigation banks to offset impacts • VDOT will adhere to policies and procedures for maintenance of SWM facilities and roadside ditches
Water Quality	<ul style="list-style-type: none"> • 17.2 acres disturbed soil; 1.9 acres of new impervious surface in Horsepen Run watershed • 5.1 acres disturbed soil; 0.7 acres of new impervious surface in Lenah Run-Broad Run watershed • No public water supplies or water supply wells impacted 	<ul style="list-style-type: none"> • VDOT approved ESC and SWM plans • Adherence to stipulations in water quality permits • VDOT will adhere to policies and procedures for maintenance of SWM facilities and roadside ditches
Floodplains	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Coastal Resources	<ul style="list-style-type: none"> • No impact 	<ul style="list-style-type: none"> • No mitigation required
Farmlands	<ul style="list-style-type: none"> • 13.2 acres Prime Farmland soil impact • These soils not considered to be contributors to potential prime or statewide important farmlands 	<ul style="list-style-type: none"> • No mitigation required
Hazardous Materials	<ul style="list-style-type: none"> • No expected impact 	<ul style="list-style-type: none"> • Creation of a Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan • Follow all local, state, and federal laws related to hazardous substances

Resource	Anticipated Impacts	Proposed Mitigation
Transportation	<ul style="list-style-type: none"> • Temporary congestion along Route 606 during construction • Improved LOS for 2036 build-conditions along Route 606 • Improved safety/access to NOAA property 	<ul style="list-style-type: none"> • Creation/implementation of Maintenance of Traffic plan • Ensure NOAA employees have access to facilities 24/7 during construction
Air Quality	<ul style="list-style-type: none"> • Temporary construction impacts • Potential damage from fugitive dust to NOAA equipment during construction 	<ul style="list-style-type: none"> • Adherence to DEQ air pollution regulations during project construction. • Stabilization practices in accordance with VDOT Road and Bridge Specifications • VDOT to provide a contractor for additional maintenance and inspection of the WFO HVAC system during construction
Noise	<ul style="list-style-type: none"> • Temporary construction noise impacts • No sensitive noise receptors on NOAA property • Potential minimal increase to ambient noise on site 	<ul style="list-style-type: none"> • Noise attenuation following VDOT Road and Bridge Specifications • Limit use of large construction equipment and earthmoving activity to the hours of 7 am to 9 pm
Biological Resources	<ul style="list-style-type: none"> • Section 7 – “No Effect” on threatened or endangered species • Not likely to impact federal or state listed species • No impact to any documented state-listed plants or insects • Potential impacts to Broad Run – Route 607 Stream Conservation Unit 	<ul style="list-style-type: none"> • Tree clearing restriction from April 15th to September 15th of any year to minimize potential effects to Northern Long-eared Bat • If not feasible, bat survey may be conducted following USFWS guidelines • Implementation of and strict adherence to applicable state and local ESC/SWM laws and regulations
Cultural Resources	<ul style="list-style-type: none"> • “No Effect” determination 	<ul style="list-style-type: none"> • No mitigation required • Suspension of activities and consultation with DHR if new resources are identified during construction
Visual Quality	<ul style="list-style-type: none"> • No new substantial visual elements or intrusions would be introduced 	<ul style="list-style-type: none"> • No mitigation required

Resource	Anticipated Impacts	Proposed Mitigation
Recreational Resources	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No mitigation required
Socioeconomic/ Environmental Justice	<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> No mitigation required
Utilities and Energy Consumption	<ul style="list-style-type: none"> Utility relocations required Negligible energy consumption and savings Potential impact to radar operations during utility relocations 	<ul style="list-style-type: none"> Close VDOT/NOAA coordination during construction to ensure equipment to move the utility lines will not impact radar operations and that there are no planned power/ data interruptions
Cumulative Impacts	<ul style="list-style-type: none"> Minor impacts 	<ul style="list-style-type: none"> No mitigation required

FINDING OF NO SIGNIFICANT IMPACT

The Council on Environmental Quality (CEQ) Regulations state that the determination of significance using an analysis of effects requires examination of both context and intensity. It lists ten criteria for intensity (40 Code of Federal Regulations 1508.27). In addition, NOAA Administrative Order 216-6, Section 6.01(b) 1-11, provides eleven criteria, the same ten as the CEQ Regulations and one additional for determining whether the impacts of a proposed action are significant. Each criterion is discussed below with respect to the Proposed Action and considered individually as well as in combination with the others.

1. *Can the Proposed Action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?*

No. The Proposed Action is expected to result in a few beneficial impacts on the human environment. The granting of the easement would allow Route 606 to be widened, and therefore alleviate traffic and congestion issues on the roadway. The signal and new access road at Ladbrook Drive would improve the safety/access onto the NOAA property. A SWM pond on the NOAA property would attenuate flooding issues. There would be changes to the quality of the environment- there would be minor impacts to geology and soils, water resources, water quality, transportation, air quality, noise, and utilities. However, through the application of measures described in the EA, the impacts would be mitigated to less than significant levels. A summary of mitigation measures is provided within the EA and is repeated in this FONSI document. The beneficial impacts, as well as the adverse impacts, do not reach the level of significance requiring the preparation of an Environmental Impact Statement (EIS).

2. *Can the Proposed Action reasonably be expected to significantly affect public health or safety?*

No. The Proposed Action is not expected to significantly affect public health and safety. The granting of the easement would allow Route 606 to be widened, and therefore alleviate traffic and congestion issues on the roadway. In addition, the new signal and access road at Ladbrook Drive would improve safety and access onto the NOAA property. The project would not significantly impact air quality and would not cause or contribute to a violation or delay attainment of the National Ambient Air Quality Standards. The project also follows VDOT noise attenuation procedures. Any construction activities that have the potential to adversely affect public or worker health and safety (such as noise, dust, and hazardous material exposure) are not anticipated to be significant if the mitigation measures recommended in the EA are implemented.

3. *Can the Proposed Action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?*

No. The Proposed Action is not expected to impact park lands, wild and scenic rivers, or ecologically critical areas. There would be no effect to historic properties. The Proposed Action would adhere to all permit conditions and utilize mitigation banks to offset the wetland and water impacts. The Prime Farmland soil impacts are not significant and not considered to be contributors to potential farmland.

The Broad Run – Route 607 Stream Conservation Unit is located downstream from the Project site. The natural heritage resource associated with the site is the yellow lampmussel. Implementation of and strict adherence to applicable state and local erosion and sediment control/SWM laws and regulations would minimize adverse impacts to the aquatic ecosystem as a result of the Proposed Action.

4. *Are the Proposed Action's effects on the quality of the human environment likely to be highly controversial?*

No. The Proposed Action involves the granting of easements on NOAA property. This EA analyzes the effects of the Proposed Action on the human environment and has been developed in coordination with VDOT and the NWS.

The public involvement component of the VDOT Route 606 Reconstruction Project has been considered sufficient public involvement for the purpose of this EA. According to the VDOT FONSI, there has been no documented dispute regarding the size, nature, or effect of the Route 606 Reconstruction Project from the state or federal environmental resource agencies or any other entity.

NOAA accepted comments on the Draft EA during a formal 30-day agency comment period beginning March 31, 2016 and ending April 29, 2016. No highly controversial topics were raised during the comment period.

Are the Proposed Action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

No. The anticipated effects of the Proposed Action on the human environment are evaluated in the EA based on conceptual plans and worst-case conditions. There is a low level of uncertainty in these anticipated effects since final design details have not been prepared. However, while effects may occur, the mitigation measures proposed in the EA would eliminate the potential for highly uncertain effects and unique or unknown risks.

5. Can the Proposed Action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

No. The project consists of an easement grant that is specific in scope and extent to the current VDOT Route 606 Reconstruction Project (widening from two to four lanes). If VDOT were to change the scope of the VDOT Route 606 Reconstruction Project (additional widening, significant changes in easement location or size), a supplemental NEPA document and grant would be required. Therefore, the Proposed Action would neither be a catalyst or precedent for other future actions by NOAA or others that would result in significant effects, nor would it influence a future action under consideration.

The widening of Route 606 would not set a precedent for future actions with significant effects or represent a decision in principle about a future consideration. The Federal Highway Administration's regulations at 23 Code of Federal Regulation 771.115(a) list the types of actions that normally have a significant effect on the environment thereby requiring the preparation of an Environmental Impact Statement. The reconstructing and widening of an existing roadway is not on the list. This decision would not establish a precedent regarding the requirements of NEPA as they would be applied to future projects.

6. Is the Proposed Action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

No. Impacts in the EA have been described assuming that the Proposed Action (easement grant) would authorize the impacts associated with the Route 606 Reconstruction Project. The impacts associated with the Route 606 widening have been found to be less than significant.

According to the Loudoun County Countywide Transportation Plan, the ultimate condition for Route 606 from the Dulles Greenway to Loudoun County Parkway is a six-lane, limited-access, median divided roadway. However, this has not been programmed or planned. If, in the future, additional easements are required for the Route 606 ultimate condition or other projects, this would be considered a cumulative impact. Any additional work proposed on the NOAA property would require NEPA compliance, such as an EA, prepared by NOAA. The direct effects cause by the Proposed Action would contribute to cumulative effects to environmental resources. However, the granting of the easement, when viewed in the context of impacts from other past, present, and reasonably foreseeable future actions, would not cause significant cumulative impacts.

7. *Can the Proposed Action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?*

No. The Proposed Action has no effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. NOAA received concurrence on a determination of “no historic properties or archaeological resources affected” by the Project on May 31, 2016.

8. *Can the Proposed Action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?*

No. The Proposed Action would not affect endangered or threatened species or its critical habitat. The Northern Long-eared Bat could potentially be impacted by the Proposed Action. However, VDOT would follow a time-of-year restriction for tree clearing from April 15th to September 15th, of any year, to minimize potential effects to the Northern Long-eared Bat. If winter tree clearing is not feasible, a bat survey may be conducted in accordance with USFWS survey guidelines. The proposed improvements on the NOAA property are not expected to impact any forest resources and would have minimal impact to individual trees on the property. A self-certification letter was filed with the USFWS on March 1, 2016, which concluded Section 7 consultation. Therefore, the Proposed Action is not expected to have a significant impact on endangered or threatened species or their critical habitats.

9. *Can the Proposed Action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?*

No. The Proposed Action’s impacts on the human environment have been analyzed relative to applicable federal, state, and local environmental laws or regulations. There are no regulatory violations or other significant environmental effects expected as a result of the Proposed Action, provided that mitigation measures recommended in the EA are implemented. All applicable permits will be acquired prior to construction.

10. *Can the Proposed Action reasonably be expected to result in the introduction or spread of a non-indigenous species?*

No. The Proposed Action is not expected to result in transport, release, propagation, or spread of non-indigenous species.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA prepared for NOAA, it is hereby determined that the undertaking of the Proposed Action will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the Proposed Action have been addressed to reach the conclusion of no significant impacts. Accordingly, the preparation of an EIS for the Action is not necessary.



Edward C. Horton

NOAA Chief Administrative Officer

8/25/2016
Date