ENVIRONMENTAL ASSESSMENT

PROPOSED CONSTRUCTION OF TURNOUT LANES FROM VIRGINIA STATE HIGHWAY 175 TO THE NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE (NESDIS) WALLOPS COMMAND AND DATA ACQUISITION STATION (CDAS), WALLOPS ISLAND, VIRGINIA
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SRI International Project 14750

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SUMMARY

Background and Purpose

The National Environmental Satellite, Data, and Information Service (NESDIS) is part of the National Oceanic and Atmospheric Administration (NOAA) of the United States (U.S.) Department of Commerce. NESDIS operates environmental satellites, which collect information on atmospheric, oceanic, and terrestrial environmental conditions. The Wallops Command and Data Acquisition Station (CDAS), operated by NESDIS, gathers data from satellites via radio downlinks and controls satellites via transmission of radio signals.

The Wallops CDAS is a tenant on the National Aeronautics and Space Administration (NASA) Wallops Flight Facility (WFF) 2,230-acre Main Base. The NASA WFF Main Base is located on the eastern shore of Virginia, and is bounded on the east by Chincoteague Bay and its bordering marshlands and creeks, on the north and west by Little Mosquito Creek, and on the south and southeast by Virginia State Highway 175. The 29-acre Wallops CDAS is located north of Runway 10-28, east of Runway 17-35, and west of Runway 4-22 at NASA WFF airfield. The Wallops CDAS unnamed access road originates on the north side of Highway 175 and provides vehicle access to the Wallops CDAS.

Description of Proposed and Alternative Actions

NESDIS proposes to improve vehicular access to the Wallops CDAS and improve highway safety of Wallops CDAS personnel and visitors by constructing turnout lanes from Virginia State Highway 175 to the access road between September 2004 and April 2005. Currently, access to the Wallops CDAS from the west is by way of a jug handle lane that carries traffic off of Highway 175, then back around to the north to a point where it intersects Highway 175 directly across from the access road entrance. Vehicles must stop at a stop sign south of Highway 175, then cross Highway 175 two traffic lanes to access the Wallops CDAS access road. Motorists routinely either do not recognize the presence of the jug handle lane or they choose to avoid the jug handle lane and turn left onto the Wallops CDAS access road directly from the eastbound lane of Highway 175. Westbound traffic accesses the Wallops CDAS unnamed access road by way of a short turnout lane on the right side of Highway 175. Additionally, a taper lane will be constructed at the entrance of an unnamed access road that originates approximately 75 feet (ft) west of the Wallops CDAS access road and provides access to the nearby town of Chincoteague water supply well field located on NASA WFF property. Specifically, to implement the road improvement projects, NOAA would:

- Remove the existing jug handle lane pavement and road bed
• Widen approximately 1,100 ft of Highway 175 to accommodate a left turn in the center of the roadway
• Widen approximately 120 ft of the westbound lane of Highway 175 and approximately 190 ft of the existing right turn lane onto the Wallops CDAS access road
• Create a new 80 ft long right turn taper from Highway 175 onto the unnamed Chincoteague well field access road

The existing 50 ft wide Virginia Department of Transportation (VDOT) easement passes through the eastern margin of the NASA WFF property. The proposed road improvements would require that additional VDOT easement be obtained from NASA, increasing the easement from 50 ft wide to 90 ft wide. As required by federal law, the alternative of taking no action is also examined in this Environmental Assessment (EA). Under the no-action alternative, NESDIS would not construct the needed vehicular access improvements to the Wallops CDAS.

Environmental Consequences and Mitigation

Implementation of the Highway 175 road improvements proposed by NESDIS would cause minimal physical change in the environment and are consistent with similar improvements that the VDOT recommends for the local transportation system. VDOT requires that NOAA coordinate with the VDOT Accomack Residency on the project design and work zone safety. Construction of the road improvements would temporarily increase vehicle traffic, noise, and emissions of air pollutants from exhaust and dust particles during the construction period. No long-term impacts will result from implementation of the proposed action. Highway safety would increase as vehicles would only need to cross one lane of traffic to gain entry onto the Wallops CDAS access road rather than two traffic lanes, as occurs when utilizing the jug handle lane. Traffic congestion would decrease at the intersection as vehicles entering the Wallops CDAS access road would wait in the dedicated left turn lane rather than in the eastbound travel lane where they may obstruct traffic flow. Construction related traffic delays would be minimized by restricting the construction project to the period of time between mid-September 2004 and mid-April 2005, thereby avoiding the height of the local tourism season. Additionally, during construction lane closures would avoid normal morning and evening commuting periods. Construction expenditures by NESDIS would represent a modest beneficial impact to the local economy. No long-term increase in employment at the Wallops CDAS or the NASA WFF is expected to result. Socioeconomic impacts would be insignificant. The census tract containing the Wallops CDAS and NASA WFF has lower per capita income, a lower unemployment rate, a lower percentage of persons living in poverty, and a higher percentage of minority persons than Accomack County as a whole. However, disproportionately high and adverse environmental effects on minority or low-income communities would not result.

Installation of the road improvements would not significantly affect ecological or natural resources. Based on consultations with the Virginia Department of Conservation and Recreation (VDCR), Virginia Department of Game and Inland Fisheries (VDGIF), and the U.S. Fish and
Wildlife Service (USFWS), no adverse effects would result on protected species or critical wildlife habitat. The proposed construction activities would not occur in wetlands subject to federal jurisdiction or within the 100-year floodplain. Farmland and designated wild and scenic rivers are not present at or near the Wallops CDAS and would not be affected. The proposed road improvements would not create hazardous environmental conditions.

None of the existing structures at the Wallops CDAS are over 50 years of age and there are no NASA structures of historic significance within the area of potential effect (APE) of the proposed road improvements. There are no places listed on the National Register of Historic Places (NRHP) at the Wallops CDAS or the proposed construction area within the VDOT Highway 175 easement. The existing VDOT 50 ft easement is located in an area of moderate prehistoric and high historic archaeological sensitivity. As required by the Virginia Department of Historic Resources (VDHR), NOAA performed a Phase 1 archaeological survey of unpaved portions of the proposed road improvements construction area. Results of the survey indicate that no portion of the proposed road improvement construction area is eligible for the NRHP. The VDHR concurred with this finding in a letter to NOAA dated July 13, 2004. Archaeological resource awareness training would be performed to inform the construction engineers and contractors of the potential presence of prehistoric and historic artifacts in the project area, and of the necessary procedures to be taken if artifacts are unearthed. Additionally, if potentially significant artifacts are uncovered during construction activities, construction activities that could harm the find would be suspended and the NASA Facility Historic Preservation Officer and the VDHR would be notified to assess the significance of the find.

Under the no-action alternative, NESDIS would not construct the needed road improvements that would serve the Wallops CDAS. The proposed vehicle access improvements and highway safety benefits would not be achieved and the government would fail to capitalize on available funding. For these reasons, the no-action alternative has been rejected by NESDIS.

Public Involvement

A Draft EA was prepared in conformance with procedural requirements for implementing the National Environmental Policy Act (NEPA) contained in 40 CFR Parts 1500–1508 and NOAA Administrative Order 216-6. The Draft EA was distributed to interested members of the public and government agencies for review and comment on April 2, 2004. A legal notice announcing the availability of the Draft EA was published in the Eastern Shore News on April 3, 2004. NESDIS accepted comments on the Draft EA until May 3, 2004, a period of 31 days. All comment letters received during the official comment period are reprinted in Section 5 of this Final EA. Official responses to comments contained in those letters are also included in Section 5 of this Final EA.
Findings

Implementation of either the proposed action or no-action alternative would not result in significant environmental effects. Therefore, an environmental impact statement (EIS) is not required.
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<th>Description</th>
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<tr>
<td>ACE</td>
<td>Advance Composition Explorer</td>
</tr>
<tr>
<td>APE</td>
<td>area of potential effect</td>
</tr>
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<td>CAA</td>
<td>Clean Air Act</td>
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<td>Clean Air Act Amendments</td>
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<td>Chesapeake Bay Local Assistance Program</td>
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<td>Command and Data Acquisition Station</td>
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<td>CEQ</td>
<td>Council on Environmental Quality</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<td>ChA</td>
<td>Chincoteague silt loam</td>
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<td>carbon monoxide</td>
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<td>CZMA</td>
<td>Coastal Zone Management Act</td>
</tr>
<tr>
<td>dBA</td>
<td>A-weighted decibel(s)</td>
</tr>
<tr>
<td>°F</td>
<td>degrees Fahrenheit</td>
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<td>DEQ</td>
<td>Department of Environmental Quality</td>
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<td>E1UBL</td>
<td>estuarine-subtidal, unconsolidated bottom, subtidal</td>
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<tr>
<td>E2EM1P</td>
<td>estuarine-intertidal emergent-persistent</td>
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<tr>
<td>E2SSIP</td>
<td>estuarine-intertidal scrub-shrub broad-leaved deciduous, irregularly flooded</td>
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<tr>
<td>EA</td>
<td>Environmental Assessment</td>
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<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>E.O.</td>
<td>Executive Order</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>Federal Emergency Management Agency</td>
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<td>FONSI</td>
<td>Finding of No Significant Impact</td>
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<tr>
<td>FPPA</td>
<td>Farmland Protection Policy Act</td>
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<tr>
<td>ft</td>
<td>foot, feet</td>
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<tr>
<td>FMP</td>
<td>Facility Master Plan</td>
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<td>GOES</td>
<td>Geostationary Operational Environmental Satellite(s)</td>
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<td>ICBO</td>
<td>International Conference of Building Officials</td>
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<td>METEOSAT</td>
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<td>mile(s)</td>
<td></td>
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<tr>
<td>MoD</td>
<td>Molena loamy sand</td>
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<td>MSG</td>
<td>METEOSAT Second Generation</td>
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<td>MSL</td>
<td>mean sea level</td>
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<td>National Ambient Air Quality Standards</td>
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<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
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<td>NCHRP</td>
<td>National Cooperative Highway Research Program</td>
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<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<td>NESDIS</td>
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<td>NHPA</td>
<td>National Historic Preservation Act</td>
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<td>NOAA</td>
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<td>NOx</td>
<td>nitrogen oxides</td>
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<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<td>NRCS</td>
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<td>National Wetlands Inventory</td>
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<td>O3</td>
<td>ozone</td>
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### ABBREVIATIONS AND ACRONYMS (CONCLUDED)

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<tr>
<th>Abbr.</th>
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<td>Pb</td>
<td>lead</td>
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<tr>
<td>PM</td>
<td>particulate matter</td>
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<td>POES</td>
<td>Polar-orbiting Operational Environmental Satellite(s)</td>
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<td>SIP</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SO$_2$</td>
<td>sulfur dioxides</td>
</tr>
<tr>
<td>sq mi</td>
<td>square mile(s)</td>
</tr>
<tr>
<td>UpD</td>
<td>Udorthent and Udipsamment soils</td>
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<tr>
<td>U.S.</td>
<td>United States</td>
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<tr>
<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
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<td>VESCH</td>
<td>Virginia Erosion and Sediment Control Handbook</td>
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<td>VESCL&amp;R</td>
<td>Virginia Erosion and Sediment Control Law, Regulations and Certification Regulations</td>
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<tr>
<td>VOC</td>
<td>volatile organic compound</td>
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<td>VPDES</td>
<td>Virginia Pollutant Discharge Elimination System</td>
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<td>Wallops Flight Facility</td>
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1 INTRODUCTION

The National Environmental Satellite, Data, and Information Service (NESDIS) is part of the National Oceanic and Atmospheric Administration (NOAA) of the United States (U.S.) Department of Commerce. NESDIS operates Geostationary Operational Environmental Satellites (GOES) and Polar-orbiting Operational Environmental Satellites (POES), which collect information on atmospheric, oceanic, and terrestrial environmental conditions. Data from these satellites are distributed to many government, industry, and private organizations. These organizations use the data to prepare short-term and long-range meteorological forecasts, monitor important environmental parameters, provide information critical to aviation and maritime safety, aid search and rescue missions, and assist in the national defense and security. Examples of information collected by NESDIS satellites include: tracking the movement of storms, volcanic ash, and icebergs; measuring cloud cover; measuring temperature profiles in the atmosphere and the temperature of the ocean surface; collecting infrared and visual information; and measuring atmospheric ozone levels.

The Wallops Command and Data Acquisition Station (CDAS), operated by NESDIS, obtains data from satellites via radio downlinks and controls satellites via transmission of radio commands. The Wallops CDAS supports the Geosynchronous Meteorology Satellite (METEOSAT) Number 7, METEOSAT Second Generation (MSG), and Advance Composition Explorer (ACE). The Wallops CDAS provides a critical link to send control messages to those satellites and download data collected by the satellites. The 29-acre Wallops CDAS is a tenant on the National Aeronautics and Space Administration (NASA) Wallops Flight Facility (WFF) 2,230-acre Main Base. NASA served as a cooperating agency in the preparation of this Environmental Assessment (EA) and provided valuable data on the WFF’s natural environmental resources, cultural resources, potable water and sanitary sewerage utilities, and subsurface contaminant characterization studies (see NASA and NOAA letters in Appendix A).

NESDIS proposes to implement capital improvements to increase the efficiency and technical sophistication of their operations and to modernize aging facilities so that they comply with current building codes. Proposed improvements include upgrades to infrastructure and replacement of obsolete facilities.

This EA examines the potential changes in the human and natural environments that could result from the proposed improvements to the intersection of State Highway 175 and the Wallops CDAS access road. This EA complies with federal legal requirements for implementing the National Environmental Policy Act (NEPA) set forth in:
Based on the findings of this EA, NOAA will decide (1) to issue a Finding of No Significant Impact (FONSI), or (2) to conduct additional environmental studies and prepare an Environmental Impact Statement (EIS).
2 PURPOSE AND NEED

The existing Wallops CDAS serves several important missions—communications and control for GOES and POES satellite programs and support for scientific activities undertaken by U.S. scientific organizations. The Wallops CDAS provides a primary communications link for a number of satellites operated by the U.S. government. In this role, the Wallops CDAS transmits radio messages containing operational instructions for the satellites and receives data collected by the satellites. These satellites contain numerous sensors that collect tremendous amounts of data on atmospheric, oceanic, and geophysical conditions throughout the world. The satellites have limited ability to store data on board, necessitating the periodic downloading of data to ground antennas. The Wallops CDAS provides critical services in support of the existing POES and GOES programs. It is expected that the Wallops CDAS will also support numerous other satellite systems and will continue to be a focal point for NOAA satellite operations (NOAA, 2004).

The Wallops CDAS was built in 1965 initially on 10 acres of land leased from NASA Wallops Station (see Figures 1[a] and 1[b]). The Wallops CDAS became operational in January 1966. With the launch of the GOES-1 satellite in 1975, the Wallops CDAS became an integral part of NOAA satellite operations, providing innovative operational and system modifications that enhanced and insured continuous, reliable data throughput (NOAA, 2004).

NESDIS recently conducted a comprehensive planning effort for what is now the 29-acre Wallops CDAS to assess the long-term potential for continued operation and future development of the Wallops CDAS, including preparation of a Facility Master Plan (FMP). The Facility Master Plan envisions the Wallops CDAS as a modern, well-constructed physical plant employing state-of-the-art technology in support of the vital NESDIS data acquisition mission. To achieve this vision, rehabilitation of existing facilities and construction of new facilities will be required over the next 15 years. The following development goals are paramount to the Wallops CDAS future success:

- Increase operational and functional efficiency
- Maintain the long-term viability of the station
- Improve the quality of life for all station employees and visitors
- Capitalize on all available funding
- Promote the station as an attractive place for new missions
FIGURE 1   SITE LOCATION MAP — WALLOPS CDAS, VIRGINIA


(a)   EXISTING FACILITIES — 1:250,000 SCALE

0  2.5  5  STATUTE MILES (mi)

0  4.02  8.05 KILOMETERS (km)
EXISTING AND PROPOSED FACILITIES — 1:24,000 SCALE


FIGURE 1 SITE LOCATION MAP — PROPOSED ROAD IMPROVEMENTS AT ENTRANCE TO WALLOPS CDAS, VIRGINIA
The proposed Virginia State Highway 175 improvements would facilitate the successful accomplishment of these goals by:

- Providing dedicated turn lanes facilitating access to the Wallops CDAS from both the eastbound and westbound travel lanes of Highway 175
- Removing the obsolete jug handle lane from the intersection of Highway 175 and the Wallops CDAS access road
- Increasing motorists’ line of sight through the curve via clearing brush and routine mowing grass at the intersection of Highway 175 and the Wallops CDAS access road
- Improving the flow of traffic on the Wallops CDAS access road and Highway 175
- Improving motorists’ safety at the intersection of Highway 175 and the Wallops CDAS access road
3 PROPOSED ACTION AND ALTERNATIVE

3.1 Proposed Action: Construction of Turnout Lanes from Virginia State Highway 175 onto the Wallops CDAS Access Road

Access to the Wallops CDAS is by way of Virginia State Highway 175, a two-lane highway that also serves as the sole roadway to the town of Chincoteague, located approximately 4 miles (mi) east of the Wallops CDAS. Currently, access to the Wallops CDAS from the west is by way of a jug handle lane that carries traffic south of Highway 175, then back around to the north where it intersects Highway 175 directly across from the Wallops CDAS access road (see Figure 2[a]). Vehicles using the jug handle lane must stop at a stop sign south of Highway 175, then cross two traffic lanes of Highway 175 to access the Wallops CDAS access road. Motorists routinely either do not recognize the presence of the jug handle lane or they choose to avoid the jug handle lane and turn left into the Wallops CDAS access road directly from the eastbound lane of Highway 175. Westbound traffic access the Wallops CDAS access road by way of a short turnout lane on the right side of Highway 175. Additionally, a taper lane will be constructed at the entrance of an unnamed road that intersects Highway 175 approximately 75 feet (ft) west of the Wallops CDAS access road and provides access to the nearby Town of Chincoteague water supply well field on NASA WFF property. NESDIS proposes to implement the following road improvements at the intersection of Virginia State Highway 175 and the Wallops CDAS access road entrance by the end of fiscal year 2004:

- Remove the existing jug handle pavement and road bed
- Widen approximately 1,100 ft of Highway 175 to accommodate a left turn in the center of the roadway
- Widen approximately 120 ft of the westbound lane of Highway 175 and approximately 190 ft of the existing right turn lane onto the Wallops CDAS access road
- Create a new 80 ft long right taper lane from Highway 175 onto the unnamed Chincoteague well field access road

Figure 2(b) is a detailed map showing the proposed roadway improvements. The existing 50 ft wide Virginia Department of Transportation (VDOT) easement passes through the eastern margin of the NASA WFF property. The proposed roadway improvements would require that additional VDOT easement be obtained from NASA, increasing the easement from 50 ft wide to 90 ft wide. These improvements would be constructed between September 2004 and April 2005 (i.e., September 2004 through April 2005).
FIGURE 2(a) EXISTING ENTRANCE ROAD INTERSECTION AT WALLOPS CDAS, VIRGINIA

SOURCE: NORFOLK DISTRICT CORPS OF ENGINEERS, NORFOLK, VIRGINIA
FIGURE 2(b) PROPOSED ENTRANCE ROAD IMPROVEMENTS AT WALLOPS CDAS, VIRGINIA
3.2 No-action Alternative

Under the no-action alternative, NESDIS would not construct the needed new infrastructure at the Wallops CDAS. The proposed long-term improvements to the intersection of the Wallops CDAS access road and the NASA well field access road with Highway 175 would not occur. The expected benefits of improved traffic flow and increased traffic safety would not be achieved. The government would fail to capitalize on available funding. For these reasons, the no-action alternative has been rejected by NESDIS.
4 AFFECTED ENVIRONMENT AND CONSEQUENCES

4.1 Land Use and Zoning

4.1.1 Existing Environment

The 29-acre Wallops CDAS is located on the northeast portion of the NASA WFF 2,230-acre Main Base in Accomack County, Virginia. During World War II, the U.S. Navy acquired the land that would eventually become NASA Wallops Flight Facility. Initially, the facility was named the Chincoteague Naval Auxiliary Air Station and used as a naval airfield. NASA acquired the property in 1959, and changed the name of the facility to the Wallops Flight Center in 1974. The Center was consolidated with Goddard Space Flight Center and renamed Wallops Flight Facility in 1984. The mission of the NASA WFF is to support suborbital and orbital tracking projects, space technology development, space experiments, and missile and rocket research and development, and, most recently, Shuttle-based and other small orbital projects (NASA, 1999).

Since its beginning in 1966, the Wallops CDAS has served as a command and data acquisition station supporting satellite operations of the U.S. government. From the start, the mission of the Wallops CDAS has been supporting the operation of geosynchronous and polar orbiting earth-observation satellites. The antennas, electronic equipment, and support facilities at the Wallops CDAS provide radio communications with satellites recording environmental conditions on earth. Sensors on the satellites collect information on atmospheric, oceanic, and terrestrial parameters. The data collected by the satellites are stored on board the spacecraft for a portion of an orbit and then transmitted down to the Wallops CDAS when the satellites passes over the station. In addition to receiving radio transmissions from the satellites, the Wallops CDAS also sends radio signals that direct operation of the propulsion and sensor systems aboard the satellites.

Accomack County is located on the eastern shore of Virginia, bounded by the Chesapeake Bay on the west, and the Atlantic Ocean on the east. Accomack County main industries are farming, fishing, construction, manufacturing, government services, and tourism. Land uses in the vicinity of the Wallops CDAS and NASA WFF include rural farmland and residential properties. The Virginia State Highway 175 provides access to the NASA WFF and Wallops CDAS from its western terminus at Virginia State Highway 13. Chincoteague is a historic coastal community located approximately 5 mi east of the NASA WFF and Wallops CDAS, separated by Chincoteague Bay. Little Mosquito Creek borders the Wallops CDAS and the NASA WFF Main Base to the north and west. Extensive tidal marshlands border the margins of Little Mosquito Creek and Chincoteague Bay.
Accomack County Department of Building, Planning and Zoning does not apply zoning classifications to federal facilities (Fluhart, 2004).

The Public Buildings Amendments of 1988, Public Law 100-678 (U.S. 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. The federal government cannot be obligated to take any action by local officials.

4.1.2 Environmental Consequences—Proposed Action

Implementation of the proposed actions would support the continued operation of the Wallops CDAS and achievement of its mission. Construction of the road improvements would occur along the eastern margin of the NASA property and would require increasing the existing Highway 175 VDOT easement from 50 ft to 90 ft. An excavation permit would be required from the NASA Environmental Office and permits for construction would be required from VDOT prior to the start of construction at the site. No permits would be required from Accomack County to implement the proposed actions. The Town of Chincoteague was informed of the proposed action (see SRI International letter to Town of Chincoteague in Appendix A). Road improvement design plans would be approved by the VDOT prior to construction.

No change in the nature or type of activities conducted at the Wallops CDAS and NASA WFF would result and no significant impacts on existing or planned uses in the vicinity of the road improvements would result.

4.1.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, the proposed road improvements would not be implemented. No effects on land use would result.

4.1.4 Mitigation

NESDIS would provide road design plans to Accomack County for a 30-day courtesy review and allow normal inspections during the construction period as required by the Public Buildings Amendments of 1988, Public Law 100-678.

4.2 Noise

4.2.1 Affected Environment

The Wallops CDAS access road entrance is located adjacent to an active airfield. Noise sources associated with the Wallops CDAS and NASA WFF include aircraft traffic and vehicular traffic on NASA and NOAA facility roads and Virginia State Highway 175.
Both military and non-military aircraft utilize the NASA WFF airfield, however, on an infrequent basis. Some of the military aircraft are capable of creating sonic booms but are permitted to do so only over the Atlantic Ocean. Aircraft noise levels recorded at the airfield for both takeoff and landing range from 72 A-weighted decibels (dBA) to 105 dBA (NASA, 1999).

There are no noise sensitive facilities, such as residences, schools, or hospitals, in the vicinity of the area of proposed road improvements. Wallops Island National Wildlife Refuge is located about 200 ft from the east end of the proposed road improvement area.

4.2.2 Environmental Consequences—Proposed Action

Construction of the proposed road improvements would require use of heavy machinery and equipment (e.g., excavators, loaders, backhoes, compactors, compressors, and haul trucks). Use of that machinery would generate intermittent loud noises typical of construction sites. Typically, the loudest noises would result from use of tractor equipment that may generate noise levels up to 98 dBA at a distance of 50 ft (Bolt, Beranek, and Newman, 1971). Those noises would occur intermittently at the construction site. Construction activities would occur primarily during normal working hours, but some construction activities may occur during early morning hours. Construction related noise would temporarily add to existing background noise levels generated by aviation and surface vehicles.

Vehicle traffic noise would increase with the addition of construction vehicles on Highway 175 during the construction activities, but would not be expected to significantly affect traffic noise levels. After construction activities are completed, noise levels would return to current levels.

No long-term increase in noise would result, and no negative noise impacts are expected to effect the natural environment of the Wallops Island National Wildlife Refuge.

4.2.3 Environmental Consequences—No-action Alternative

Under this alternative, no construction would be undertaken and no new noise would be generated.

4.2.4 Mitigation

No mitigation would be required.

4.3 Transportation

4.3.1 Affected Environment

Virginia State Highway 175 provides access to the NASA WFF and Wallops CDAS from its western terminus at Virginia State Highway 13, and continues eastward to the town of Chincoteague. An asphalt paved two-lane access road provides main access to the Wallops CDAS from Highway 175, terminating at the Operations Building parking area. Single lane
paved roads continue from the parking area to other Wallops CDAS antennas and facilities. The access road from Highway 175 has no other outlet. Access to the Wallops CDAS facility is controlled by a staffed security gate to prevent unauthorized vehicles and persons from entering the Wallops CDAS. Traffic on the access road is limited to Wallops CDAS employees, authorized visitors, and delivery vehicles.

The normal morning rush hour traffic occurs on westbound Highway 175 past the Wallops CDAS intersection between 7:30 A.M. and 8:30 A.M. The normal evening rush hour traffic occurs on eastbound Highway 175 between 4:30 P.M. and 5:30 P.M.

VDOT conducts daily traffic counts on Highway 175 at a location approximately 0.75 mi east of its intersection with Highway 13, the primary north/south highway on the Delmarva Peninsula, and about 5 mi west of the Wallops CDAS (VDOT, 2004). Table 1 provides VDOT seasonal average maximum and minimum daily vehicle trip totals for vehicles traveling both directions on Highway 175. The spring and summer months have been averaged together since Chincoteague’s primary tourism season runs from the Memorial Day holiday through the end of the Labor Day holiday.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
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<tbody>
<tr>
<td>Winter</td>
<td>3,325</td>
<td>8,152</td>
</tr>
<tr>
<td>Spring/Summer</td>
<td>8,172</td>
<td>11,251</td>
</tr>
<tr>
<td>Fall</td>
<td>5,009</td>
<td>8,576</td>
</tr>
</tbody>
</table>

### 4.3.2 Environmental Consequences—Proposed Action

VDOT was consulted to solicit their comments and recommendations of the proposed action. VDOT responded that their review of the proposed action does not indicate any negative impacts to the transportation system and that the proposed action is consistent with similar improvements that they recommend for the local transportation system (see VDOT letter in Appendix A). Additionally, VDOT requires project coordination with the VDOT Accomack Residency to ensure that no conflicts are created due to VDOT requirements regarding geometric design standards, sight distance, transition lengths, pavement designs, paving markings, and work zone safety. Given that NOAA coordinates with VDOT on the project, VDOT has no objections to the proposed road improvements.

Implementation of the proposed road improvements would require controlling the flow of traffic through the work zone so that construction operations can occur as necessary. Traffic controls implemented in the work zone may include a reduced speed limit, placement of barricades/cones, and lane closures with contractor personnel directing traffic and the use of pilot
vehicles. Temporary unimproved gravel road surfaces and rough road surfaces would also be expected to slow vehicle speed through the work area.

The average maximum daily number of vehicle trips on Highway 175 increases by 31 percent to 38 percent during the town of Chincoteague primary tourist season (i.e., spring through summer) compared to the off season. Disruption of the flow of traffic on Highway 175 could delay the vacation travelers who visit the town of Chincoteague and also delay the Chincoteague-based work force that commutes off of the island each work day. Additionally, construction related traffic delays may have an economic impact by adversely affecting travel times to and from businesses (National Cooperative Highway Research Program [NCHRP], 2000).

Standard road construction traffic management practices limit flagged one lane traffic to the hours between 6:00 A.M. and 6:00 P.M. Two-way traffic is restored daily, and on weekends beginning at 3:00 P.M. Implementation of these standard traffic management practices would still have a negative impact on the commuting traffic and vacation traffic as it would allow lane closure during normal workforce commuting periods and during Chincoteague’s tourism season. To minimize traffic delays to the Chincoteague-based work force and vacation travelers visiting the Chincoteague area, road construction would occur in the off season, which starts after the Labor Day holiday (September 6, 2004) and ends in mid-April 2005 when the Chincoteague Easter Decoy and Art Festival and Auction occurs. During that period, lane closures would be restricted to the hours between 8:30 A.M. and 4:00 P.M. to minimize construction related traffic delays to the Wallops area commuting work force.

During road construction, supply trucks, construction vehicles, and workers’ vehicles would use Highway 175 to access the project site. The amount of construction-related traffic generated would vary slightly during implementation of the infrastructure improvements. In total, up to several dozen trips per day would be generated during this period by commute vehicles used by construction workers, construction vehicles, and trucks delivering supplies and equipment. Vehicle trips during construction would not significantly affect traffic levels on Highway 175.

Implementation of the proposed improvements would not change the number of workers employed at the Wallops CDAS and no change in long-term traffic generation would result. Traffic flow through the intersection and highway safety at the intersection would be improved. No adverse effects on operation of local roads would result.

4.3.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no changes in existing roads or levels of traffic would result.

4.3.4 Mitigation

To minimize traffic delays to both the Wallops area commuting work force and vacation travelers visiting the Chincoteague area, the road construction project would be started in
mid-September 2004 and be completed before mid-April 2005. Additionally, during that time lane closures would be restricted to the hours between 8:30 A.M. and 4:00 P.M. to minimize construction related traffic delays to the Wallops area commuting work force.

NOAA would coordinate with the VDOT Accomack Residency on the project design and implementation to ensure that work is consistent with current VDOT design and work zone safety requirements.

4.4 Socioeconomic Impacts and Environmental Justice

4.4.1 Affected Environment

Under Executive Order (E.O.) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, federal agencies must identify and address, as appropriate, disproportionately high and adverse environmental or human health effects on minority populations and low-income populations. Minority communities and low-income communities must also have access to public information on matters related to human health and the environment (President, 1994).

The proposed road improvements project area is located in Census Tract 9902, which covers about 111 square miles (sq mi) or 8 percent of Accomack County total land area of 1,310 sq mi (U.S. Census Bureau, 2004b). Census data from 2000 for Census Tract 9902 and for Accomack County as a whole are presented in Chart 1.

As shown in Chart 1, the census tract containing the area of the proposed road improvements contains about 23 percent of the total population of Accomack County. The percentage of minority population within Census Tract 9902 is slightly higher than that of Accomack County as a whole. The rate of unemployment is 6.7 percent, which is below the rate of unemployment in Accomack County as a whole. The average per capita income for people within the tract is $12,761, which is roughly 22 percent less than the average per capita income in Accomack County as a whole. However, a smaller percentage of the population is in poverty than in the county as a whole. Overall, the census tract containing the NASA WFF and Wallops CDAS has a slightly higher percentage of minorities and lower per capita income than Accomack County as a whole; however, the rates of unemployment and poverty are lower than in the county as a whole (U.S. Census Bureau, 2004a).
4.4.2 Environmental Consequences—Proposed Action

Implementation of any of the proposed action would generate a series of stimuli for the local economy due to construction-period expenditures for equipment, materials, supplies, and so on, and employment of workers by the construction contractors. These stimuli would continue over a period of several months. Indirect economic benefits would also occur due to the multiplier effect as construction-generated revenues are re-spent by suppliers and workers. This short-term effect would be beneficial. Construction expenditures by NESDIS would represent far less than 1 percent of the annual domestic product of Accomack County. Thus, the effect of the economic stimulus would be modest.

After construction is complete, VDOT would continue to maintain the roadway. The number of persons employed by VDOT in the Accomack County area would not directly increase. In the
long-term, the improvement of the roadway would not result in direct economic impacts. However, the improvements would reduce the potential for delays to motorists caused by vehicles on Highway 175 waiting to turn into the Wallops CDAS access road. It would also reduce the potential for accidents at this intersection. As a result, modest reduction in traffic congestion may result, benefiting the local economy. Socioeconomic effects would not be significant.

Implementation of any of the proposed road improvements would occur in an area with slightly higher percentage of minority population, lower percentage of persons living in poverty, and lower percentage of unemployed persons. The per capita income of the area is roughly 22 percent less than that of Accomack County as a whole. Construction of the proposed road improvements would not result in dislocation of persons or businesses or emissions of noxious pollutants. Disproportionately high and adverse environmental effects would not result on either minority or low-income populations of the area, or on the population as a whole.

4.4.3 Environmental Consequences—No-action Alternative

The proposed road improvements would not be implemented and no socioeconomic effects would result.

4.4.4 Mitigation

No mitigation would be required.

4.5 Air Quality

4.5.1 Affected Environment

Under the Clean Air Act (CAA) of 1970, the Environmental Protection Agency (EPA) promulgated primary and secondary National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants: particulate matter (PM), nitrogen oxides (NOₓ), sulfur dioxides (SO₂), lead (Pb), ozone (O₃), and carbon monoxide (CO). Following this legislation, the Clean Air Act Amendments (CAAA) of 1990 identified certain areas of the country as being in non-attainment of the NAAQS. Individual states are then required to submit, for federal approval, a State Implementation Plan (SIP). The SIP specifies actions designed to bring nonattainment areas into conformity with federal air quality standards. Virginia’s federally approved SIP is overseen by the Virginia Department of Environmental Quality (DEQ). Applicable state regulations for the Control and Abatement of Air Pollution are outlined in *Virginia Administrative Code* (VAC) 9 VAC 5-50-60 et seq. and 9 VAC 5-40-5600 et seq. The Wallops CDAS is located in Air Quality Control Region 4 and Administrative Region 6. Wallops CDAS is in attainment with NAAQS for all criteria pollutants (NOAA, 2004).
4.5.2 Environmental Consequences—Proposed Action

Construction of the proposed road improvements would require removal of the existing jug handle road surface, stripping the proposed roadways of existing vegetation, excavating soil, and placement of roadbed material. These activities would expose silt soils to wind erosion, potentially generating moderate amounts of dust. Dust may also be created when vehicles travel over any unimproved surface during construction, and when passing by areas of exposed soil. Dust could also be generated during placement and removal of surcharge materials for final site grading. Areas of exposed soil should be sprayed with water or treated with dust suppressants. Spilled or tracked dirt or other materials and dried sediments resulting from soil erosion should be promptly removed from paved surfaces. No burning of construction material would be required; therefore, requirements under 9 VAC 5-40-5600 et seq. for controlled burning are not applicable. Provided that these standard construction practices are followed, dust emissions would not be significant. Implementation of the proposed action would not create new sources of air emissions.

4.5.3 Environmental Consequences—No-action Alternative

No impacts on air quality would occur as a result of the no-action alternative.

4.5.4 Mitigation

To minimize the amount of dust generated during the road construction, exposed areas of soil would be sprayed with water or treated with dust suppressants. Additionally, spilled or tracked dirt or other materials and dried sediments resulting from soil erosion would be promptly removed from paved surfaces.

4.6 Geology and Soils

4.6.1 Affected Environment

Wallops CDAS is located in the Atlantic Coastal Plain physiographic province. The area underlying Wallops Flight Facility consists of a thin sequence of marine sediments overlying a much thicker sequence of Cretaceous to Quaternary age (144 million years ago to the present) continental sediment deposits. These 7,000 ft thick sediment layers consist of unconsolidated clay, silt, sand, and gravel (NASA, 1999). Crystalline bedrock underlies these sediments. The Wallops CDAS is located in seismic zone 1, an area subject to minimal hazard from earthquakes (International Conference of Building Officials [ICBO], 1997).

Most of the proposed road improvements would occur in an area with Molena loamy sand (MoD), at 6 to 35 percent slopes. The eastern end of the proposed road improvements would occur on Udorthent and Udipsamment soils (UpD), at 0 to 30 percent slopes and Chincoteague silt loam (ChA), at 0 to 1 percent slopes (Natural Resources Conservation Service [NRCS], 2002, 2004; also see Soil Survey of Accomack County, Virginia, excerpts in
Appendix A). MoD soil is classified as very deep and somewhat excessively drained, non-hydric soil. Depth to groundwater is expected to be greater than 6 ft below grade, and risk of corrosion of uncoated steel is low, but high for concrete. UpD-Chincoteague series is described as very deep, very poorly drained soil, and is considered a hydric soil. Depth to groundwater is expected to be less than 6 ft below grade. Risk of corrosion of uncoated steel and of concrete is high. UpD is not a suitable roadbed as it has low soil strength and presents unstable slopes. ChA is a very deep to deep, poorly to somewhat poorly drained soil. This soil may be hydric in part. None of these soil units are considered sources of important mineral resources. There are no quarry operations on either the Wallops CDAS or NASA WFF properties.

4.6.2 Environmental Consequences—Proposed Action

The proposed road improvements would occur on nearly level terrain. Approximately 0.60 acre of ground disturbance would occur and approximately 0.40 acre of ground would be paved with asphalt (U.S. Army Corps of Engineers [USACE], 2004). VDOT requires that vegetative, erosion, and sediment control practices be constructed and maintained in accordance with the minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook (VESCH), 1992 edition. The VESCH establishes minimum design and implementation standards for these practices in an effort to control erosion and sedimentation from land disturbing activities. Further discussion of erosion and sedimentation is presented below in Section 4.7, Drainage and Water Quality.

NASA requires that an excavation permit be obtained from the NASA Facilities Management Branch prior to any excavation activities at WFF, and requires implementation of sediment and erosion control measures. To minimize the potential for sedimentation, standard erosion control measures would be implemented at all areas of soil disturbance (i.e., areas stripped of vegetation and pavement). Those measures would include placement of temporary silt fences or hay bales at the boundaries of cleared areas to retain soil, periodic spraying of water on bare soil to reduce dust entrainment, and prompt planting or hydroseeding of bare areas after construction is complete to establish vegetative cover.

Implementation of the proposed action would not affect access to mineral resources. Effects on geologic conditions, soils, and mineral resources would be insignificant.

4.6.3 Environmental Consequences—No-action Alternative

No new construction activities would result and no effects on geology, soils, or mineral resources would occur as a result of the no-action alternative.

4.6.4 Mitigation

To minimize the potential for soil erosion, standard erosion control measures would be implemented at all areas of soil disturbance in accordance with the VESCH. Those measures would include placement of temporary silt fences or hay bales at the boundaries of cleared areas
to retain soil, periodic spraying of water on bare soil to reduce dust entrainment, and prompt planting or hydroseeding of bare areas after construction is complete to establish vegetative cover.

NESDIS would obtain an excavation permit from NASA Facilities Management prior to start of excavation activities.

4.7 Drainage and Water Quality

4.7.1 Affected Environment

The Delmarva Peninsula has a temperate climate, characterized by humid summers and mild winters. Prevailing winds are from the south in the summer and from the northwest in the winter. Annual average winds are eight knots. Climatological records kept by the NASA WFF Meteorological Office for 1999 show a maximum monthly precipitation of 6.87 inches occurred in March, and in 1998, a minimum monthly precipitation of 0.82 inch occurred in July. In 1998, a high temperature of 98 degrees Fahrenheit (°F) occurred in August, and in 1999, a low temperature of 13 °F occurred in January (NASA, 1999). Precipitation averages 37 inches per year, spread throughout the year. Normal daily high temperature is 83 °F in the summer months and the normal low is 29 °F in the winter months (NOAA, 2004).

The topography of the area of the proposed road improvements is characterized as relatively flat, gently sloping to the southeast, with elevations ranging from approximately 4 ft mean sea level (MSL) along the eastern end of the project area to approximately 21 ft MSL at the west end of the project area. Stormwater drainage from the roadway and vegetated road shoulders flows east through drainage ditches along the margins of the roadway and discharges onto the broad vegetated upland flats adjacent to Chincoteague Bay. In contrast to natural landscapes, impervious surfaces such as paved roadways do not allow stormwater to seep into the ground. Stormwater accumulates on the road surface and mixes with vehicle pollutants before it runs off into drainage ditches.

Stormwater runoff of construction sites is regulated by both the Virginia DEQ (see Virginia DEQ letter dated January 21, 2004, in Appendix A) and the Virginia Department of Conservation and Recreation (VDCR). The Virginia DEQ implements U.S. EPA National Pollutant Discharge Elimination System (NPDES) Permit Regulations through the Virginia Pollutant Discharge Elimination System (VPDES) program. Effective September 27, 2000, Virginia DEQ incorporated the NPDES Permit Regulations into the VPDES Permit Regulations, requiring construction projects disturbing 1 to 5 acres of land to apply for VPDES permit coverage. A continuous planning provision in the VPDES Permit Regulations requires a permit once the combined total acreage of all projects at a major site reaches the 1-acre threshold, regardless of the size of the individual projects, if the projects are planned for initiation in the same budget year, under the same funding process, and under the same ownership.
Erosion and sediment control, and stormwater management are regulated by Virginia’s Erosion and Sediment Control Law (Code of Virginia §10.1-567) and 4 VAC 50-30-30 et seq., and Stormwater Management Law (Code of Virginia §10.1-603.5). Activities that disturb 10,000 square ft or more of land would be regulated by Virginia Erosion and Sediment Control Law, Regulations and Certification Regulations (VESCL&R) and those that disturb 1 acre or greater would be regulated by Virginia Stormwater Management Law and Virginia Stormwater Management Regulations (VSWML&R). The Virginia Department of Conservation and Recreation assists the Virginia DEQ with the review and approval of sediment and erosion control plans.

The Town of Chincoteague maintains five deep groundwater wells and three shallow groundwater wells on the NASA WFF easement (NASA, 1999). These wells are regulated by the Virginia Department of Health (VDH). Wells numbered 1 and 4 are located approximately 280 ft to 320 ft from the closest point of the proposed road improvements. Well number 3A is located approximately 360 ft south of the western end of the proposed road improvements.

4.7.2 Environmental Consequences—Proposed Action

Construction of the proposed road improvements would disturb approximately 0.70 acre of ground surface, including approximately 0.19 acre of the deteriorating asphalt of the jug handle lane that will be removed. A portion of the jug handle footprint would be graded and seeded while the remainder would be overlain by a portion of the new roadway. Approximately 0.30 acre of new impervious surface would be placed as road pavement and the remainder of the disturbed project area will be seeded to provide groundcover and reduce stormwater runoff. Due to the increase in impervious surfaces, the amount of storm runoff from the site would increase slightly but not by a significant amount. The proposed road should include design of appropriate surface grades and drainage ditches to carry stormwater runoff to storm sewer inlets and discharge outlets that meet VDOT design requirements. No significant effects on runoff rates or water quality would result.

During implementation of the proposed road improvements, the total area of construction ground disturbance would be approximately 0.70 acre. However, the fiscal year cumulative acreage of ground disturbance of the proposed entrance road improvements combined with the Wallops CDAS proposed sewerage and water main infrastructure improvements equal 1.12 acres. Therefore, a VPDES permit for discharge of storm runoff water from the construction site would be required under 9 VAC 25-180-10 et seq.

Erosion and sediment control, and stormwater management plans should be prepared in compliance with VSWML&R to manage erosion, sedimentation and stormwater runoff at the site during construction. Construction activity should be monitored to ensure strict adherence to erosion and sediment control, and stormwater management practices and compliance with state law. Effects on drainage and water quality would be insignificant.
4.7.3 Environmental Consequences—No-action Alternative

Implementation of this alternative would not result in any ground disturbances. No impacts on drainage patterns, runoff flow rates, or the quality of surface or ground water would result.

4.7.4 Mitigation

To minimize the potential for erosion and sedimentation, standard erosion and sedimentation control measures would be implemented at all areas of soil disturbance in accordance with the VESCH. Those measures would include placement of temporary silt fences or hay bales at the boundaries of cleared areas to retain soil, periodic spraying of water on bare soil to reduce dust entrainment, and prompt planting or hydroseeding of bare areas after construction is complete to establish vegetative cover.

NESDIS would obtain a VPDES stormwater general permit for the construction activities, prepare an erosion and sedimentation control plan, and a stormwater management plan to ensure best management practices and compliance with state law during construction. Construction activity would be monitored to ensure strict adherence to erosion and sediment control, and stormwater management practices and compliance with state law.

The proposed road design would include design features to provide for appropriate surface grades and drainage ditches to carry stormwater runoff to storm sewer inlets and discharge outlets in conformance with VDOT design requirements.

4.8 Cultural Resources

4.8.1 Affected Environment

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consult with the state historic preservation officer prior to taking actions that may affect cultural resources.

The NASA WFF Main Base was historically owned by the Wallop family in 1664. During World War II, the U.S. Navy acquired the property and established the Chincoteague Naval Auxiliary Air Station, operating a naval aviation airfield and testing ordinances (NASA, 1999). NASA acquired the property in 1959, and consolidated its operations with Goddard Space Flight Center in 1984. The mission of the NASA facilities was the support of suborbital and orbital tracking projects, space technology development, space experiments, and missile and rocket research and development, and most recently, Shuttle-based and other small orbital projects.

The original Wallops CDAS facility was developed on 10 acres of land leased from NASA Wallops Station, which had previously been a former golf course. Since its beginning in 1965, the mission of the Wallops CDAS has been to support the operation of both geosynchronous and polar orbiting earth-observation satellites. The antennas, electronic equipment, and support facilities at the Wallops CDAS provide radio communications with satellites observing the earth.
Sensors on the satellites collect information on atmospheric, oceanic, and terrestrial conditions of the earth. NASA completed a cultural resources assessment of the NASA WFF in November 2003 (NASA, 2003). Areas of moderate to high sensitivity for prehistoric and historic archaeological sites are present on the northern and eastern margins of the Wallops CDAS and NASA WFF, adjacent to the marshlands of Little Mosquito Creek and Mosquito Creek. The existing VDOT 50 ft easement is located in an area of moderate prehistoric and high historic archaeological sensitivity. The nearest historic region is Corbin Hall, located approximately 1.75 mi north of the Wallops CDAS across Little Mosquito Creek (National Park Service [NPS], 2003).

None of the existing structures at the Wallops CDAS are over 50 years of age. There are no NASA structures of historic significance within the VDOT 50 ft easement or in the vicinity of the proposed road improvements. There are no places listed on the National Register of Historic Places (NRHP) at the Wallops CDAS and NASA WFF airfield area.

The Virginia Department of Historic Resources (VDHR) was consulted to verify that there are no places listed on the NRHP within the project area. The VDHR responded that there are no archaeological sites recorded within the project’s area of potential effects; however, the area has a moderate to high potential to contain significant prehistoric and historic archaeological sites, and that a Phase I archaeological survey should be conducted of all areas of proposed ground disturbance (see VDHR letter dated April 28, 2004, in Appendix A).

4.8.2 Environmental Consequences—Proposed Action

The USACE and NOAA are responsible for the design of the proposed roadway improvements. USACE incorporates standardized facility construction specifications into their project design specifications for protecting cultural resources at project sites. These specifications require that, upon discovery of possible scientific, prehistoric, historical, or archaeological data, work at a project site will cease immediately and appropriate notifications will be made giving the location and nature of the findings so that the significance of the find can be assessed. The project superintendent shall exercise care so as not to disturb or damage artifacts or fossils uncovered during excavation operations, and shall provide such cooperation and assistance as may be necessary to preserve the findings for removal or other disposition.

There are no places listed on the NRHP within the area of potential effect (APE) of the proposed action. All of the existing structures at the Wallops CDAS are less than 50 years old. Thus, as required by criterion G of 36 CFR 60.4, and National Register Bulletin—Guidelines for Evaluating and Nominating Properties that have Achieved Significance Within the Past Fifty Years, any structures within the Wallops CDAS and NASA WFF study areas would have to be of exceptional importance to be eligible for the NRHP. No such facilities have been identified within the existing VDOT 50 ft easement or in the vicinity of the proposed project. However, the undisturbed ground located within the proposed construction area is considered an area of high sensitivity for historic artifacts.
The proposed action would result in soil disturbance over an area of about 0.70 acre. Most of the area to be disturbed consists of ground that was previously disturbed during construction of Highway 175. Small areas of soil at the margins of the construction area are vegetated with grasses and low vegetative cover. Those areas may not have been disturbed previously. The road improvements would result in little or no direct effects on nearby areas. The visual quality of the area would not be substantially affected. Thus, the APE would be limited to areas of construction soil disturbance.

A pre-construction Phase 1 archaeological survey conforming to standards of the VDHR was completed to identify and recover archaeological materials that may be harmed by the proposed road construction. The survey was conducted by a qualified professional in a manner consistent with the Secretary of the Interior’s Standard for Identification (48 Federal Register 447200-23) and the Virginia Department of Historic Resource’s Guidelines for Conducting Cultural Resource Survey in Virginia. The 2.3-acre survey area consisted of the same 1,100 ft stretch of Route 175 and 90 ft easement as the proposed road improvement project area. A total of twenty-nine shovel tests were excavated during the survey, of which six were positive for artifacts. The six positive shovel tests represent four archaeological locations consisting of isolated finds in redeposited fill soil. The survey report concluded that, by definition, the archaeological locations are not eligible for inclusion in the NRHP and no further investigation was determined to be necessary (see Archaeological Survey report in Appendix B). A copy of the archaeological survey report was provided to the VDHR for their review. In their response the VDHR concurred with the findings of the survey that the project area is not eligible for inclusion in the NRHP and that no further historic or archaeological studies are necessary (see VDHR letter dated July 13, 2004 in Appendix A).

4.8.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no improvements would occur and no effects on cultural or historic properties would result.

4.8.4 Mitigation

Prior to the start of construction, archaeological resource awareness training would be performed to inform the construction engineers and contractors of the potential presence of prehistoric and historic artifacts in the project area, and of the necessary procedures to be taken if artifacts are unearthed.

If potentially significant artifacts are uncovered during construction activities, construction activities that could harm the find would be suspended and the NASA Facility Historic Preservation Officer and the VDHR would be notified to assess the significance of the find. The VDHR can be notified at (804) 367-2323.
4.9 Endangered and Threatened Species

4.9.1 Affected Environment

The following reptiles are listed as threatened or endangered under the Endangered Species Act and may occur in the general vicinity of the NASA WFF (NASA, 1999):

- Threatened Loggerhead Sea Turtle (*Caretta caretta*)
- Threatened Atlantic Green Sea Turtle (*Chelonia mydas*)
- Endangered Leatherback Sea Turtle (*Dermochelys coriaces*)
- Endangered Hawksbill Sea Turtle (*Eretmochelys imbricata*)
- Endangered Kemp’s Ridley Sea Turtle (*Lepidochelys kempi*)

Federally listed birds that may occur in the area are (NASA, 1999):

- Endangered Piping Plover (*Charadrius melodus*)
- Threatened Bald Eagle (*Haliaeetus leucocphalus*)

State listed birds that may occur in the area are (NASA, 1999):

- Threatened Gull-billed Tern (*Sterna nilotica*)
- Threatened Upland Sandpiper (*Bartramia longicauda*)
- Endangered Wilson’s Plover (*Charadrius wilsonia*)
- Endangered Peregrine Falcon (*Falco peregrinus*)

Federally endangered marine mammals that may occur in the area are (NASA, 1999):

- Sei Whale (*Balaenoptera borealis*)
- Blue Whale (*Balaenoptera musculus*)
- Fin Whale (*Baleanoptera physalus*)
- Northern Right Whale (*Eubalaena glacialis*)
- Humpback Whale (*Megaptera novaeangliae*)
- Sperm Whale (*Physseter catodon*)

No federal or state endangered or threatened floral species have not been identified at the NASA WFF (NASA, 1999). Rare flora, however, do occur at Wallops Island, which is approximately 3.7 mi to the south-southeast (NASA, 1999).

The VDCR, Virginia Department of Game and Inland Fisheries (VDGIF), and the U.S. Fish and Wildlife Service (USFWS) were consulted to determine the presence of federal and state threatened and endangered species on and in the vicinity of the proposed action (see VDCR and VDGIF letters, and USFWS letter and enclosures in Appendix A). The VDCR noted that the
bald eagle and piping plover occur in the vicinity, but determined that the proposed activity will not adversely impact known natural heritage resources in the vicinity of the project. The VDGIF also recommended that the USFWS be consulted to further discuss potential impacts to these species. A subsequent conversation with the USFWS confirmed that the proposed action is not likely to adversely affect listed species (Harrison, 2004).

The proposed road improvements would occur within the VDOT easement, an area that contains the paved road surface, and mowed grass shoulders. Additionally, the proposed Highway 175 project area is located east at the east end of NASA WFF Runway 10-28. The area is subject to aircraft over flights and associated noise. Based on the presence of highway traffic, associated vehicle noise, routine mowing, and the close proximity to existing NASA WFF airfield activities, the proposed project area has minimal value as wildlife habitat.

The Wallops Island National Wildlife Refuge is located east of the NASA WFF Main Base and the proposed project area. A portion of the refuge is adjacent to Highway 175 and consists of 373 acres of saltwater marsh, brush habitat, woodland, and grassland interspersed within Chincoteague Channel (USFWS, 2004).

### 4.9.2 Environmental Consequences—Proposed Action

According to the USFWS, no effects on species listed under the Endangered Species Act would result from implementation of the proposed action (USFWS, 2004). NESDIS has fulfilled requirements under Section 7 of the Endangered Species Act. Implementation of the proposed action would be very unlikely to affect habitat for any of the listed species or species of concern identified by the USFWS or VDGIF. Proposed areas of construction consist of existing paved roadways and mowed grass fields adjacent to existing development. No trees or brush would be removed and no wetlands would be filled or cleared of vegetation.

No adverse impacts on species listed under the Endangered Species Act or federal or state species of concern would result. No areas dedicated to wildlife or habitat conservation would be affected. No significant effects on biological resources would result.

### 4.9.3 Environmental Consequences—No-action Alternative

No construction activities would occur as a result of the no-action alternative. No effects on listed species or critical habitat would result.

### 4.9.4 Mitigation

No mitigation would be required.
4.10 Wetlands

4.10.1 Affected Environment

Executive Order 11990, *Protection of Wetlands*, requires that federal agencies avoid locating facilities in wetlands unless no alternative locations are available (President, 1977b). Under Section 404 of the Clean Water Act, the USACE is responsible for delineating federal jurisdictional wetlands and issuing permits for construction in wetlands. The USACE defines federal jurisdictional wetlands as those areas with a suitable hydrology regime and hydric soils that support (or could support) hydrophilic vegetation. The Virginia Wetlands Protection Program, administered by the Virginia DEQ, regulates impacts to state waters and both tidal and non-tidal wetlands. The Virginia Wetlands Protection Program is authorized by *Code of Virginia* §62.1-44.15.5 and is more encompassing than federal law.

According to the USFWS National Wetlands Inventory (NWI) map for this area, the eastern portion of the proposed road improvements are adjacent to estuarine-intertidal scrub-shrub broad-leaved deciduous, irregularly flooded (E2SSIP) wetlands; estuarine-intertidal emergent-persistent (E2EM1P) wetlands; and estuarine-subtidal, unconsolidated bottom, subtidal (E1UBL) wetlands (see NWI map in Appendix A). The UpD and ChA soils underlying the eastern portion of the proposed road improvements are classified as containing hydric components (NRCS, 2002, 2004; also see *Soil Survey of Accomack County, Virginia*, excerpts in Appendix A).

4.10.2 Environmental Consequences—Proposed Action

The proposed improvements would occur in upland areas adjacent to federal jurisdictional wetlands. The eastern portion of the road improvements would occur on Upd and ChA soils that may be hydric. However, construction in areas of UpD and ChA soils would be limited to resurfacing and re-striping existing pavement. No construction would occur in wetlands and no direct effects on wetlands would occur as a result of implementation of the proposed action. Indirectly, storm runoff from the road surfaces would flow into the wetlands to the east. The USACE project design engineer coordinated with the USACE Eastern Shore Field Office on the design of the proposed roadway improvements to avoid impacting wetlands adjacent to the eastern margin of the proposed site.

Erosion control measures would be implemented to prevent washing of sediment or soil into those wetlands. Construction activities would be monitored to ensure that erosion and sediment control and stormwater management practices are adequately preventing sediment and pollutant migration into surface waters, including wetlands. No significant effects on wetlands would occur and the proposed action would be consistent with E.O. 11990.
4.10.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no construction would occur. No impacts on wetlands would result.

4.10.4 Mitigation

To minimize the potential for sedimentation of nearby wetland area during construction, standard erosion and sedimentation control measures would be implemented at all areas of soil disturbance (i.e., areas cleared of vegetation and pavement). Those measures would include placement of temporary silt fences or hay bales at the boundaries of cleared areas to retain soil, periodic spraying of water on bare soil to reduce dust entrainment, and prompt planting or hydroseeding of bare areas after construction is complete to establish vegetative cover. Construction activities would be monitored to ensure that erosion and sediment control and stormwater management practices are adequately preventing sediment and pollutant migration into surface waters, including wetlands.

4.11 Floodplains

4.11.1 Affected Environment

Executive Order 11988, Floodplain Management, requires that federal facilities be located outside the area subject to the 100-year flood event (President, 1977a). According to the Federal Emergency Management Agency (FEMA), the area of the proposed road improvements are in Zone C. Zone C covers areas of minimal flooding and is outside the 100-year floodplain (see FEMA map in Appendix A).

4.11.2 Environmental Consequences—Proposed Action

The majority of the proposed road improvements would overlie MoD soil, classified as somewhat excessively drained soil. The extreme eastern portion of the proposed road improvements would overlie UpD soil, classified as very poorly drained soil and ChA soil, classified as very deep to deep, poorly to somewhat poorly drained soil. Construction of the proposed road improvements would disturb approximately 0.60 acre of ground surface, and approximately 0.30 acre of new impervious surfaces would be created. Due to the increase in impervious surfaces, the amount of storm runoff from the site would increase slightly. The proposed road design would include appropriate final surface grades and drainage facilities to carry stormwater runoff to storm sewer inlets and discharge outlets that meet VDOT design requirements.

Implementation of the proposed action would not result in significant increases in impervious surfaces or changes in drainage patterns. Flood hazards to structures would not be increased and implementation of this action would be consistent with policies set forth in E.O. 11988.
4.11.3 Environmental Consequences—No-action Alternative

Under this alternative, no effects on the floodplain would result. Implementation of this alternative would be consistent with policies set forth in E.O. 11988.

4.11.4 Mitigation

No mitigation would be required.

4.12 Coastal Zone Management

4.12.1 Affected Environment

The Coastal Zone Management Act (CZMA) of 1972 requires the protection of coastal natural resources and the management of coastal development. Virginia implements the requirements of the CZMA through the Virginia Coastal Resources Management Program (VCP) (see Virginia DEQ letter dated January 22, 2004, in Appendix A). The VCP is a network of state laws and policies administered by several state agencies to protect and manage coastal resources. VCP policies address the following resources and issues:

- Wetlands
- Fisheries
- Subaqueous lands
- Dunes
- Point source air pollution
- Point source water pollution
- Nonpoint source water pollution
- Shoreline sanitation
- Coastal lands

4.12.2 Environmental Consequences—Proposed Action

The proposed construction would occur at upland areas within the existing VDOT easement for Highway 175. The existing easement would be widened from 50 ft to 90 ft in width to accommodate the proposed improvements. There would be no direct or indirect effects to fisheries habitat, subaqueous lands, dunes, point source air pollution, point source water pollution, or shorelines.

Implementation of the proposed action would be fully consistent with the VCP as follows:

- Wetlands—No wetlands would be impacted. Erosion and sedimentation control measures would be implemented to prevent the sedimentation of wetland areas adjacent to the VDOT easement.
• Nonpoint source pollution—Erosion and sedimentation control measures would be implemented to prevent the airborne and waterborne sedimentation of adjacent lands and wetlands.

• Coastal lands—The Coastal Lands Management is a state and local agency cooperative program administered by the Chesapeake Bay Local Assistance Program (CBLAP). Surface waters at the NASA WFF flow into tributaries of the Atlantic Ocean, and thus, lie outside of the area administered by the CBLAP.

The proposed road improvements would help ease congestion on Highway 175 and improve the safety of travel on that road. Highway 175 provides vehicle access to the popular Chincoteague area, which includes several areas of outstanding natural value, including Wallops Island National Wildlife Refuge, Chincoteague National Wildlife Refuge, and Assateague Island National Seashore. The Chincoteague area also contains popular tourist beaches. By improving the safety of Highway 175 and reducing traffic congestion, the proposed action would facilitate public access to the Chincoteague shoreline area. This furthers Advisory Policies A and B for shorefront access planning and protection (see Virginia DEQ letter dated January 22, 2004, in Appendix A).

The Virginia DEQ responded upon their review of the Draft EA that they concur with the finding that implementation of any of the alternatives of the proposed action would be fully consistent with the VCP so long as NESDIS complies with all the requirements of applicable permits and authorizations referenced in this Final EA.

4.12.3 Environmental Consequences—No-action Alternative

No impacts would occur as a result of the no-action alternative on resources of the coastal zone.

4.12.4 Mitigation

See Section 4.6.4.

4.13 Wild and Scenic Rivers

4.13.1 Affected Environment

The National Wild and Scenic Rivers Act aims to preserve and protect aesthetic and recreational values of designated free-flowing rivers. There are no designated wild and scenic rivers or portions of those rivers in Virginia. The nearest designated wild and scenic river is White Clay Creek, found roughly 125 mi to the north-northwest in northern Delaware (NPS, 2004).

Virginia Scenic Rivers Act preserves and protects state designated rivers for their natural beauty, recreational, geologic, and cultural attributes. The nearest state-designated rivers to the
site of the proposed action are the Chickahominy State Scenic River approximately 102 mi to the west-southwest and James River State Scenic River approximately 107 mi to the southwest (Code of Virginia, 1948).

Due to the distances from the location of the proposed action, no effects would occur to federally or state designated scenic rivers.

4.13.2 Environmental Consequences—Proposed Action

No direct or indirect effects on wild or scenic rivers would occur as a result of the proposed action.

4.13.3 Environmental Consequences—No-action Alternative

No impacts would occur on wild and scenic rivers as a result of the no-action alternative.

4.13.4 Mitigation

No mitigation would be required.

4.14 Farmlands

4.14.1 Affected Environment

The proposed action is located within an existing VDOT easement. Neither the VDOT easement, nor the adjoining NASA WFF lands are utilized for agricultural purposes.

The Farmland Protection Policy Act (FPPA) sets forth federal policies to prevent the unnecessary conversion of agricultural land to non-agricultural use. NRCS regulations at 7 CFR Part 658, Farmland Protection Policy Act, are designed to implement those policies. The proposed road improvements would cross MoD, UpD, and ChA soils, which are not considered prime farmland (NRCS, 2002).

4.14.2 Environmental Consequences—Proposed Action

Implementation of the proposed action would have no effect on agricultural production. No land would be removed from existing agricultural use. No impacts on farmlands would result.

4.14.3 Environmental Consequences—No-action Alternative

Under the no-action alternative, no impacts on farmlands would result.

4.14.4 Mitigation

No mitigation would be required.
4.15 Energy Consumption

4.15.1 Affected Environment

Electric service to the Wallops CDAS and NASA WFF is supplied by Conectiv Power Delivery. Both the Wallops CDAS and the NASA WFF Main Base utilize back-up engine generators that provide backup electric power during the loss of primary electric service.

4.15.2 Environmental Consequences—Proposed Action

Equipment used to construct the road improvements would consume modest amounts of gasoline and diesel fuels. A construction office may be staged within the VDOT easement, and could connect to nearby electric power lines. The amount of electric energy consumed during the construction of the proposed road improvements would be insignificant.

4.15.3 Environmental Consequences—No-action Alternative

No new consumption of energy would occur as a result of the no-action alternative.

4.15.4 Mitigation

No mitigation would be required.

4.16 Visual/Light Emissions

4.16.1 Affected Environment

The Wallops CDAS and NASA WFF are located in rural landscape, surrounded on the north, east and west by undeveloped marshlands. The topography of the area is relatively low, with few ridges that provide screening. Mature forested areas provide the predominant screening. The 15 NESDIS and NASA dish antennas dominate the view shed along Highway 175 on the east side of the NASA WFF. Views of the Wallops CDAS and NASA WFF antennas are best seen by vehicular traffic traveling on Highway 175 to and from the town of Chincoteague.

The existing roadway and access road entrance are located between open grass fields. The predominant structures in the area of the proposed road improvements are the NASA WFF airfield fence and town of Chincoteague’s well houses located to the northwest. A narrow line of coniferous and deciduous trees is located at the east margin of the Wallops CDAS property. The view from the area of the proposed road improvements to the east-southeast include marshland vegetation (e.g., tall marsh grasses, cat tails), electric utility poles and service lines, meandering water ways of Mosquito Creek, and distant views of Chincoteague Bay and the town of Chincoteague. The NASA Visitors Center is located on the east side of Highway 175 approximately 700 ft south of the southern end of the proposed road improvements. The visitors center has a display of full scale rockets on the south end of the NASA Visitors Center property.
4.16.2 Environmental Consequences—Proposed Action

The proposed action would be located within the VDOT easement which would be widened from 50 ft to 90 ft. Roadway improvements would be finished at nearly the same finished elevations as the existing roadway. The proposed widening of the roadway would not intrude upon the adjacent marshlands nor the NASA WFF airfield area. No new lights are proposed as part of the action. The proposed road improvements would have a minimal effect on the visual setting of the project area.

4.16.3 Environmental Consequences—No-action Alternative

No change in the visual environment would occur as a result of the no-action alternative.

4.16.4 Mitigation

No mitigation would be required.

4.17 Solid and Hazardous Waste

4.17.1 Affected Environment

The area of the proposed road improvements is surrounded by open grass fields. No residential, office, industrial or manufacturing facilities are present in the vicinity. Non-hazardous solid wastes are removed from the Wallops CDAS facility and NASA WFF by a private contractor and disposed of offsite at an approved landfill. There are no solid waste disposal areas on either the Wallops CDAS or NASA WFF.

4.17.2 Environmental Consequences—Proposed Action

The Virginia DEQ responded upon their review of the Draft EA that it advocates employing the principles of pollution prevention in all construction projects to minimize environmental impacts. Specifications regarding minimizing the use of raw materials, utilizing sustainable materials such as recycled asphalt and concrete materials, should be considered during the project’s design. Additionally, the DEQ stated that any soil encountered during construction that is suspected of contamination must be tested and disposed of in accordance with applicable federal, state and local laws and regulations, and that the DEQ’s Tidewater Regional Office be contacted.

Construction of the proposed road improvements would generate wastes such as asphalt and concrete rubble, plastic and metal scrap, paint containers, etc. All solid wastes generated from project activities would be reduced at the source, reused, or recycled. Some wastes, such as chemicals used to clean or degrease equipment, may be considered hazardous. The use of hazardous materials would be minimized, and wastes generated from their use would be separated from non-hazardous wastes for proper disposal. All solid waste, hazardous waste, and
hazardous materials would be managed in accordance with all applicable federal, state and local environmental regulations.

Asphalt would be removed from the jug handle and roadway. The asphalt rubble could be recycled for reuse within the road project as aggregate road cover. If proper practices are used for handling and disposal of construction wastes, no significant impact on the environment would result. Provided that hazardous wastes are properly identified and separated for off-site disposal, no significant impacts on the environment would result.

4.17.3 Environmental Consequences—No-action Alternative

No new construction would occur and no solid or hazardous wastes would be generated as a result of the no-action alternative.

4.17.4 Mitigation

Some wastes, such as chemicals and rags used to clean or degrease materials and equipment, may be considered hazardous. They would be separated from non-hazardous wastes for proper disposal. All solid waste, hazardous waste, and hazardous materials would be managed in accordance with all applicable federal, state and local environmental regulations. Asphalt removed from the jug handle and roadway should be recycled either for reuse within the road project or other project requiring stone aggregate.

If during construction suspected petroleum contaminated soil is encountered, the suspect contaminated soil will be segregated and contained to prevent further spreading and the soil will be sampled and tested for the presence of petroleum hydrocarbons and volatile organic compounds (VOCs). The DEQ Tidewater Regional Office and NASA Environmental Office will be notified to determine the need for additional measures.

4.18 Cumulative Impacts

4.18.1 Affected Environment

The environmental setting of the existing and proposed facilities is described by issue area in each section above. NESDIS proposes to implement a number of additional capital improvements to increase the efficiency and technical sophistication of their operations and to modernize aging facilities so that they comply with current building codes.

NASA has updated the WFF Master Plan and is preparing a WFF Site EA to consider alternatives for its operations and facility improvements. The purpose and need for NASA’s proposed actions is to enable the NASA WFF to continue to meet its missions in an efficient and environmentally sound manner. NASA WFF’s infrastructure is essential to the operation, safety, and mission goals at WFF (Silbert, 2004). NOAA’s proposed road improvements are consistent with NASA’s master plan and have an independent purpose to serve Wallops CDAS future operations.
4.18.2 Environmental Consequences—Proposed Action

NESDIS proposes to construct dedicated road turnouts from Highway 175 onto the Wallops CDAS access road. This action represents in part major facility improvements expected to occur at the Wallops CDAS over the next year. Additionally, the Wallops CDAS FMP identifies capital improvement projects to accomplish the following objectives:

- Expand mission capabilities
- Increase infrastructure capacity, reliability, and system reliance
- Meet force protection and anti-terrorism security guidelines
- Modify existing security features
- Offset facility requirements
- Correct building system deficiencies
- Renovate/modernize core mission facilities retained for long term use
- Reconfigure and add circulation improvements and pavements
- Upgrade design amenities

These capital improvement projects include renovation and buildout of existing facilities and development of new facilities within the Wallops CDAS grounds, and have been divided into project Phases 0 through 5 as follows:

Phase 0 projects, such as the proposed road improvements, are currently in the environmental review and pre-design process.

Phase 1 projects address high priority mission needs that are not or can not be met by the use of existing Wallops CDAS facilities and capabilities. These projects would focus on operations space, force protection improvements, and key infrastructure investments.

Phase 2 projects focus on projects to construct new facilities, office space and workforce support space, and initiate multi-phase renovation of the Operations Building for new uses.

Phase 3 projects are also focused on facility investments that will revitalize existing buildings and construct new administrative space.

Phase 4 projects would complete the renovations of the operations building, construct new logistics facilities, and remove the existing logistics facilities.

Phase 5 projects would upgrade/replace the transmitter buildings located on site. Additional projects would likely be added to this phase once additional programmatic needs and investments are realized.

The proposed action would enable the Wallops CDAS to maintain the level of operations required by NESDIS. Future facility improvements would help to maintain the required operations, and provide for future mission assignments. The capital improvement projects are expected to occur within the existing Wallops CDAS and NASA WFF property limits, and include renovations to existing facilities and construction of new facilities. Future actions are expected to comply with all applicable federal environmental regulations and policies.
Implementation of the proposed roadway improvements would increase the impervious surface area of the roadway, slightly increasing the amount of storm water runoff and associated roadway pollutants, but not by a significant amount. The proposed roadway would include design of appropriate surface grades and drainage ditches to carry stormwater runoff to storm sewer inlets and discharge outlets that meet VDOT design requirements. No significant effects on runoff rates or water quality would result. Implementation of the proposed action would not individually cause significant effects on the environment and would not add to effects from other reasonably foreseeable planned actions to cause cumulatively significant impacts.

4.18.3 Environmental Consequences—No-action Alternative

No individual or cumulative impacts would occur as a result of the no-action alternative.

4.18.4 Mitigation

Mitigation measures included in Sections 4.1 through 4.17 would reduce the level of reasonably foreseeable individual and cumulative impacts in the vicinity of the proposed roadway improvements to insignificant levels. Future capital improvement projects should consider the effects that the impervious surfaces of new structures will have on the stormwater drainage and water resources in the vicinity of the Wallops CDAS. Future facilities and structures should be designed to minimize impervious surfaces and to allow surface runoff to infiltrate surrounding grounds.
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5 COMMENTS ON DRAFT EA AND RESPONSES

5.1 Public Review

NESDIS issued the draft report *Environmental Assessment—Proposed Construction of Turnout Lanes from Virginia State Highway 175 to the National Environmental Satellite, Data, and Information Service (NESDIS) Wallops Command and Data Acquisition Station (CDAS), Wallops Island, Virginia*, on April 2, 2004. A legal notice announcing the availability of the Draft EA was published in the *Eastern Shore News* on April 3, 2004 (see Certificate of Publication in Appendix A). The Draft EA conformed to legal requirements of NEPA, regulations implementing the procedural requirements of NEPA developed by the Council on Environmental Quality (CEQ) at 40 CFR Parts 1500–1508, and NOAA Administrative Order 216-6. NESDIS accepted comments on the Draft EA from government agencies, local organizations, and the public during a 31-day comment period ending on May 3, 2004. Section 5.2 of this Final EA lists the two commenters and contains copies of the two letters commenting on the Draft EA received by NESDIS. Section 5.3 provides written responses to all of the relevant comments on the Draft EA received by the government. Where appropriate, the text of this Final EA has been revised to include information contained in the responses to the comments on the Draft EA.

5.2 Comment Letters

1. Ellie L. Irons, Program Manager  
   Office of Environmental Impact Review  
   Commonwealth of Virginia, Department of Environmental Quality  
   629 East Main Street  
   P.O. Box 10009  
   Richmond, Virginia 23219  
   Richmond, Virginia 23240

2. Daniel B. Horne, P.E.  
   Engineering Field Director  
   Office of Drinking Water  
   Commonwealth of Virginia, Department of Health  
   830 Southampton Avenue, Room 2058  
   Norfolk, Virginia 23510
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COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
Division of Air Quality, Post Office Box 1119
Richmond, Virginia 23218-1119
April 26, 2006

Re: Draft Environmental Impact Statement (DEIS) for the Proposed Construction of a Transmission Line from Virginia Power's Palmyra Station in Campbell County, Virginia, to the J. H. Campbell Generating Station in Prince George County, Virginia.

Dear Ms. Crim: 

The Commonwealth of Virginia has completed its review of the Draft Environmental Impact Statement (DEIS) and consistency determination for the above-referenced project. The Commonwealth has determined that the Draft Environmental Impact Statement (DEIS) and consistency determination for the above-referenced project is consistent with the policies and guidelines of the Commonwealth. Also, as you are aware, pursuant to the Coastal Zone Management Act of 1977, as amended, Section viii. Section vii. of our December 30, 1977, regulations (5 VTyr. 18.26(21)) authorizes approval of any non-marine coastal activity in Virginia. The Commonwealth has reviewed this Draft DEIS and determined that the project does not constitute a non-marine coastal activity. The Commonwealth is therefore in compliance with the Coastal Zone Management Act of 1977, as amended. 

The Commonwealth of Virginia has determined the above-referenced project is consistent with the policies and guidelines of the Commonwealth. Therefore, the Commonwealth has determined the above-referenced project is consistent with the policies and guidelines of the Commonwealth and is consistent with the policies and guidelines of the Commonwealth and is consistent with the policies and guidelines of the Commonwealth.

Sincerely,

[Signature]

Director, Office of Planning and Development
Environmental Impacts and Mitigation

1. Water Quality. The Draft EA (page 21) states that according to National Environmental Policy Act (NEPA) rules and the nature of the proposed road, the roadway improvements would occur in upland areas. No construction would occur in wetlands and no significant adverse effects would occur in wetlands.

The DEQ's Virginia Regional Office states that whereas the Draft EA acknowledges federal wetlands jurisdiction, it does not mention the Virginia Wetlands Protection Program (WPP). The Draft EA statesople that the Virginia Wetlands Protection Program does not apply to the proposed roadway improvements.

2. Visual Quality. Visual quality issues would include changes to the views from the roadway, the wetlands and the upland areas around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.

3. Cultural Resources. The Draft EA does not mention the Virginia Wetlands Protection Program (WPP). The Draft EA states that the Virginia Wetlands Protection Program does not apply to the proposed roadway improvements.

4. Air Quality. Air quality issues would include changes to the air quality in the area around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.

5. Traffic Noise. Traffic noise issues would include changes to the noise levels in the area around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.

6. Vegetation. Vegetation issues would include changes to the vegetation in the area around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.

7. Wildlife. Wildlife issues would include changes to the wildlife in the area around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.

8. Water Quality. Water quality issues would include changes to the water quality in the area around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.

9. Erosion and Sedimentation. Erosion and sedimentation issues would include changes to the erosion and sedimentation in the area around the roadway. These changes could be both positive and negative. Positive changes could be the result of the construction of new roads, while negative changes could be the result of the removal of existing roads.
4. Appalachian Basins Policy Council. The Draft EA (page 25) states that stable channels and downstream processes would be implemented in all four of the Eastern SRP management units. The DRCD would be responsible for implementing measures to maintain the channels and downstream processes necessary for the recovery of the species. This includes measures for preventing sediment and pollution interactions in areas where the species is present, including wetlands.

5. Sediment and Nutrient Wastes: The DRCD Waste Water Division notes that stable and balanced sediment waste units were not used because is was deemed too expensive. The DRCD Waste Water Division also notes that the DRCD would implement sediment waste units as required by this project. In addition, the DRCD's Federal Nutrient Program determines that it would not impact any of the environmental investigations and post-construction projects currently in place.

6. Wild and Scenic Rivers: The Department of Conservation and Recreation has noted that the proposed project will not affect any river states, river state areas or river state watersheds.

7. Historic Resources and Archaeological Resources: The Draft EA (page 31) states that NOAA is aware of the need to coordinate with the state historic preservation officer (SHPO) under Section 106 of the National Historic Preservation Act to the extent possible with cultural resources. According to the DRA, the project would affect cultural resources. However, the Virginia SHPO, DCH, and Virginia NPS would conduct a Phase I Archaeological survey prior to the construction of any major changes (EA, page 25). The Department of Historic Resources has not requested an impact from the current project. NRAI did conduct a survey with the Virginia SHPO under Section 106 of the National Historic Preservation Act (see "Recreational and Cultural Resources") (see page 8 below).

8. Transportation: The Virginia Department of Transportation (VDOT) states that the proposed project does not require approval under 23 C.F.R. 650.167(a). VDOT notes that the project does not require a transportation impact study because it is not a major transportation project. However, the project is a major transportation project because it will affect the transportation system.

9. Groundwater and Abandoned Irrigation Wells: The DED's Water Resources and Landscaping Program notes that the DED's Water Resources and Landscaping Program, along with the Virginia Department of Conservation and Recreation, will conduct an environmental review for the project.

10. 45
In addition, the facility had a total of 23 sentinel送on cases including 8 active cases. None of these cases are linked to the previous incident. Please continue to follow protocols as documented during the incident. All incidents should be reported to OSH and promptly managed in accordance with OSH guidelines.

Thanks for the opportunity to continue.

Sue L. SMITH
Regional Inspector
ESCC
Tel: 03 8900 6222
Mobile: 0433 062 030
Email: sue.smith@escc.vic.gov.au
MEMORANDUM

To: Anna Norman

From: Thomas Mace

DATE: April 20, 2006

SUBJECT: Environmental Assessment

Wetland Impairment Proposed Construction of Terminal Lanes from VA State Highway 173 to NEEDS

The Wetland Division has reviewed the Environmental Assessment for the Wetlands Impairment Proposed Construction of Terminal Lanes from VA State Highway 173 to NEEDS, announcement.

We leave the following comments concerning the various issues associated with this project:

1. 40 and 446 were found and were noted and addressed in the report. The Wetland Division did not review the data collected and did not feel any sites that might impact or be impacted by this project.

The Virginia Department of Environmental Quality’s Federal Facilities Section also reviewed the report and indicated that it would accept or deny any of the environmental impact statements and recommendations pending finalization of the site.

Any soil that is impacted or contamination in soils that are present must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. Issue an applicable state and local laws and regulations: Virginia Waste Management Act, Code of Virginia, Sections 10.1-190 etc. Virginia Nonwaste Management Regulations (VNRAM), VAC 50-50 et seq. Virginia Solid Waste Management Regulations (VSWMR) (VAC 50-60), Virginia Solid Waste Management Regulations (VSRMR) (VAC 20-60) Virginia Regulations for the Deposition of Hazardous Materials (VAC 20-15). Follow all the applicable federal laws and regulations and the Economic Conservation and Recreation Act (ECRA) 42 USC, Section 700 et seq, and all applicable regulations contained...
Finally, the report addressed pollution prevention. VODQ encourages all construction projects and facilities to implement pollution prevention principles, including the use of wet swaths, swaths, and everything else involved in greenways. All beneficial uses should be evaluated.

If you have any questions or need further information, please ask or refer.
Date: 14 April 2004
To: Anne E. Noreno, Virginia Department of Environmental Quality
From: John R. Durye, Director, Planning & Recreation Resources
Subject: DEQ00064444 - Proposed Construction of Tidewater Lanes From Route 778 to the National Environmental Study, Data & Information

The Department of Conservation and Recreation (DCR) functions to preserve and protect the environment of the Commonwealth of Virginia and advance the wise use of our natural, cultural, economic and cultural heritage resources. Cultural heritage resources are defined as the historic sites, buildings, structures, monuments, battlefields, and landscapes, and objects, artifacts, and collections in which the commonwealth has significant cultural or historic character, significance, or meaning, and which have been designated or may be designated by the commonwealth, significant cultural resources or any future definition of cultural resources.

DCR has searched its Historic Data System for occurrences of natural heritage resources in the area within the vicinity of the project area. This analysis of data may indicate that the project area has been assessed, rather than confirm that the area lacks natural heritage resources. Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in reviewing potential impacts on Identified components of the cultural heritage resources. The current activity will not affect any documented state-listed plants or fishes.

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks additional natural heritage resources. When and updated information would be useful in making future decisions.

Converting Virginia's Natural and Recreational Resources
RECEIVED

APR 22 2002

ANDREW D. STEWART
ENVIROMENTAL HAZARD PLANNER

COMMENTS

Comments in the project document concerning endangered species were ordered not to be included. Additional comments are necessary in reference to endangered plants and species regarding the project.

[Signatures]
April 28, 2004

Mr. Anna D. Newton

Department of Environmental Quality
Office of Environmental Impact Review
522 East Main St., 8th Floor

Re: 404-0680, Proposed Construction of Pedestrian System on VA State Highway 719 to the National Environmental Satellite, Data & Information Service, Accomack County

Dear Ms. Newton:

Sir or Madam,

The Virginia Department of Transportation's Eastern Shore District Transportation Review Board has reviewed the information provided for the referenced project. Our review finds that impacts to existing and proposed transportation facilities are minimal. The proposed project does not otherwise impact the existing or future transportation system. However, careful review of the plans and coordination with the Assawoman residents is required to ensure that no conflicts are created due to current VDOT requirements regarding geometric design standards, proposed realignment, pavement design, transition crossovers, snow and safety policies, and equipment. Review of the construction plans should be coordinated with VDOT's Area Engineer (757-710-1293).

Thank you for the opportunity to comment on this project.

Sincerely,

[Signature]

A. C. Ray

Deputy Director of Planning

Virginia Department of Transportation
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COMMONWEALTH OF VIRGINIA
Department of Health
OFFICE OF COMPLIANCE

SUBJECT: Acgression Control System
Water Quality Facility

May 11, 2004

Hi Jeff,

This is in response to your letter dated April 5, 2004, which requested comments on the Final Environmental Assessment Report for the proposed construction of waste water on Hotel 12, to serve the NODSS facility at NOSA CLPP Site.

I am not familiar with the NOSA CLPP facility, but I have been informed that the project is not related to the Water Quality Facility.

Based on my review of the DA for this project, it does not appear that the project would have any adverse effects on Water Quality facilities. Accordingly, this letter has no objections to the project.

I do not think that the project is related to a separate project that will solicit the construction of a waste water facility to serve the CLPP facility.

I am not familiar with the project, but I have been informed that the project is not related to the Water Quality Facility.

Sincerely,

David R. White
Assistant Secretary for \nEnvironmental Field Division

cc: V.D.R. - Office of Recycling Waste (Field Services Engineer)
This page intentionally left blank.
5.3 Responses to Comments

5.3.1 Response to Comment Letter 1: Water Quality and Wetlands

The DEQ letter states that the DEQ Tidewater Regional Office must be contacted to ensure compliance with the Virginia Wetlands Protection Program and to determine the need for a VPDES stormwater general permit for construction activities in light of the regulation’s provision addressing activities that are part of a continuous planning process. The USACE project design engineer coordinated with the USACE Eastern Shore Field Office on the design of the proposed road improvements to avoid impacting wetlands adjacent to the eastern margin of the proposed site. Since the cumulative acreage of ground disturbance of the proposed entrance road improvements combined with the Wallops CDAS proposed sewerage and water main infrastructure improvements equal 1.12 acres, NESDIS will obtain a VPDES stormwater general permit for construction (see mitigation measures listed in Section 4.7.4 of this Final EA).

The DEQ letter stated that NESDIS must ensure it is in compliance with the VESCL&R and VSWML&R. NESDIS will prepare an erosion and sedimentation control plan, and a stormwater management plan to ensure best management practices and compliance with state law during construction. Additionally, construction activity will be monitored to ensure strict adherence to erosion and sediment control, and stormwater management practices and compliance with state law (see mitigation measures listed in Section 4.7.4 of this Final EA).

5.3.2 Response to Comment Letter 1: Air Quality Regulations

The DEQ letter states that the project may be subject to air regulations administered by the DEQ and that applicable state regulations for the Control and Abatement of Air Pollution outlined in 9 VAC 5-50-60 et seq. and 9 VAC 5-40-5600 et seq. may apply to project activities related to the control of fugitive dust emissions and open burning. Exposed areas of soil will be sprayed with water or treated with dust suppressants. Additionally, spilled or tracked dirt or other materials and dried sediments resulting from soil erosion will be promptly removed from paved surfaces (see mitigation measures listed in Section 4.5.4 of this Final EA). No open burning is expected during project implementation.

5.3.3 Response to Comment Letter 1: Natural Heritage Resources

NESDIS notes DEQ’s finding that no significant effects would result on natural heritage resources.

5.3.4 Response to Comment Letter 1: Non-point Source Pollution Control

See response to comment in Section 5.3.1.
5.3.5 **Response to Comment Letter 1: Solid and Hazardous Waste**

The DEQ letter states that all solid waste, hazardous waste, and hazardous materials must be managed in accordance with all applicable federal, state and local environmental regulations. Additionally, if evidence of contaminated soils (i.e., discolored soils, free product) is encountered during construction, the soil must be managed in accordance with all applicable federal, state and local environmental laws and regulations. During construction NESDIS will segregate non-hazardous wastes from possible hazardous wastes for proper disposal. If petroleum contaminated soil is encountered during construction, the soil will be sampled and tested for the presence of petroleum hydrocarbons and VOCs. If contaminants are found at regulatory action levels, the DEQ Tidewater Regional Office and NASA Environmental Office will be notified to determine appropriate corrective actions (see mitigation measures listed in Section 4.17.4 of this Final EA).

5.3.6 **Response to Comment Letter 1: Wild and Scenic Rivers**

Comment noted. No impacts on wild and scenic rivers would result (see Section 4.13 of this Final EA).

5.3.7 **Response to Comment Letter 1: Historic Resources**

As required by the VDHR, a Phase 1 archaeological survey was completed to identify and recover archaeological materials that may be harmed by the proposed road construction (see VDHR letter dated April 28, 2004, in Appendix A). The survey was conducted by a qualified professional in a manner consistent with the Secretary of the Interior’s *Standard for Identification* (48 Federal Register 447200-23) and the Virginia Department of Historic Resource’s *Guidelines for Conducting Cultural Resource Survey in Virginia*. During the survey twenty-nine shovel tests were excavated, of which six were positive for artifacts. The six positive shovel tests represent four archaeological locations consisting of isolated finds in redeposited fill soil. The survey report concluded that, by definition, the archaeological locations are not eligible for the NRHP and no further investigation was determined to be necessary. A copy of the archaeological survey report was provided to the VDHR for their review. In their response the VDHR concurred that the project area is not eligible for the NRHP and that no further investigation was determined to be necessary (see VDHR letter dated July 13, 2004 in Appendix A).

Prior to the start of construction, archaeological resource awareness training will be performed to inform the construction engineers and contractors of the potential presence of prehistoric and historic artifacts in the project area, and of the necessary procedures to be taken if artifacts are unearthed. If potentially significant artifacts are uncovered during construction activities, construction activities that could harm the find will be suspended and the NASA Facility Historic Preservation Officer and VDHR will be notified to assess the significance of the find (see mitigation measures listed in Section 4.8.4 of this Final EA).
5.3.8 Response to Comment Letter 1: Transportation

The DEQ letter states that NESDIS must coordinate with the VDOT Accomack Residency to ensure that no conflicts are created due to current VDOT requirements regarding geometric design standards, pavement marking, pavement design transition lengths, work zone safety, and site distance. NESDIS will coordinate with the VDOT Accomack Residency on the project design and implementation to ensure that no conflicts are created due to current VDOT design requirements and work zone safety (see mitigation measures listed in Section 4.3.4 of this Final EA).

5.3.9 Response to Comment Letter 1: Underground and Aboveground Storage Tanks and Remediation Program

The proposed action would not include removal of underground or aboveground storage tanks or installation of new tanks. No effects on storage tanks would result.

5.3.10 Response to Comment Letter 1: Pollution Prevention

NESDIS will incorporate the pollution prevention principles described in the DEQ letter into project design (see Section 4.17 of this Final EA).

5.3.11 Response to Comment Letter 1: Federal Consistency Determination

The DEQ concurs with the finding that implementation of any of the alternatives of the proposed action would be fully consistent with the VCP so long as NOAA obtains all applicable permits and approvals referenced in this EA prior to implementing the project. NOAA will obtain all required permits and approvals.

5.3.12 Response to Comment Letter 2: Water Supply

NESDIS notes that the DEQ’s Department of Health, Office of Drinking Water believes that the proposed project will not adversely affect water supply facilities and does not object to the project.
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6 CONCLUSION

No significant environmental effects would result from implementation of the proposed action. Recommended mitigation measures include:

- NESDIS would provide road design plans to Accomack County for a 30-day courtesy review and allow normal inspections during the construction period as required by the Public Buildings Amendments of 1988, Public Law 100-678.

- To minimize traffic delays to both the Wallops area commuting work force and vacation travelers visiting the Chincoteague area, the road construction project would be started in mid-September 2004 and be completed before mid-April 2005. Additionally, during that time lane closures would be restricted to the hours between 8:30 A.M. and 4:00 P.M. to minimize construction related traffic delays to the Wallops area commuting work force.

- NOAA would coordinate with the VDOT Accomack Residency on the project design and implementation to ensure that work is consistent with current VDOT design and work zone safety requirements.

- To minimize the amount of dust generated during the road construction, exposed areas of soil would be sprayed with water or treated with dust suppressants. Additionally, spilled or tracked dirt or other materials and dried sediments resulting from soil erosion would be promptly removed from paved surfaces.

- To minimize the potential for soil erosion, standard erosion control measures would be implemented at all areas of soil disturbance in accordance with the VESCH. Those measures would include placement of temporary silt fences or hay bales at the boundaries of cleared areas to retain soil, periodic spraying of water on bare soil to reduce dust entrainment, and prompt planting or hydroseeding of bare areas after construction is complete to establish vegetative cover. Construction activities would be monitored to ensure that erosion and sediment control and stormwater management practices are adequately preventing sediment and pollutant migration into surface waters, including wetlands.

- NESDIS would obtain an excavation permit from NASA Facilities Management prior to start of excavation activities.

- NESDIS would obtain a VPDES stormwater general permit for the construction activities, prepare an erosion and sedimentation control plan, and a stormwater management plan to ensure best management practices and compliance with state law during construction. Construction activity would be monitored to ensure strict adherence
to erosion and sediment control, and stormwater management practices and compliance with state law.

- The proposed road design would include design features to provide for appropriate surface grades and drainage ditches to carry stormwater runoff to storm sewer inlets and discharge outlets in conformance with VDOT design requirements.

- Prior to the start of construction, archaeological resource awareness training would be performed to inform the construction engineers and contractors of the potential presence of prehistoric and historic artifacts in the project area, and of the necessary procedures to be taken if artifacts are unearthed.

- If potentially significant artifacts are uncovered during construction activities, construction activities that could harm the find would be suspended and the NASA Facility Historic Preservation Officer and the VDHR would be notified to assess the significance of the find. The VDHR can be notified at (804) 367-2323.

- Some wastes, such as chemicals and rags used to clean or degrease materials and equipment, may be considered hazardous. They would be separated from non-hazardous wastes for proper disposal. All solid waste, hazardous waste, and hazardous materials would be managed in accordance with all applicable federal, state and local environmental regulations. Asphalt removed from the jug handle and roadway should be recycled either for reuse within the road project or other project requiring stone aggregate.

- If during construction suspected petroleum contaminated soil is encountered, the suspect contaminated soil will be segregated and contained to prevent further spreading and the soil will be sampled and tested for the presence of petroleum hydrocarbons and VOCs. The DEQ Tidewater Regional Office and NASA Environmental Office will be notified to determine the need for additional measures.

Implementation of either the proposed action or the no-action alternative would not result in significant environmental effects. Therefore, an EIS is not required. Preparation of a FONSI is warranted for the proposed action under Section 5.03c of NOAA Administrative Order 216-6.
7 LIST OF PREPARERS

SRI International of Menlo Park, California, served as the prime contractor for the preparation of this EA under contract to the U.S. Department of Commerce. The following staff from SRI International worked on this Final EA.

- Bernice Bumbaca, in process of obtaining A.S., physical science, College of San Mateo, California; 11 years of experience in environmental research and analyses. Ms. Bumbaca served as consistency reviewer for this EA.

- Teresa Cochran, A.A., individual studies, Foothill College, Los Altos Hills, California; 13 years of experience in report preparation and coordination. Ms. Cochran served as editor and word processor for this report.

- Jeffrey L. Coron, B.S., geology, Mary Washington College, Fredericksburg, Virginia; Registered Professional Geologist, Pennsylvania; 15 years of experience in environmental site assessments, contaminant characterization and remediation studies, remediation services, and asbestos inspections and management plans. Mr. Coron served as project leader and principle author for this report.

- Roshni Easley, A.A., general studies-social science, Foothill College, Los Altos Hills, California; 5 years of experience in report preparation and coordination. Ms. Easley served as report coordinator for this report.

- Linda Hawke-Gerrans, A.A., technical illustration, College of San Mateo, California; 30 years of experience in technical illustration and 11 years of experience in geographic information systems. Ms. Hawke-Gerrans served as technical illustrator and geographic analyst for this EA.

- James Manitakos, Jr., J.D., law, Peninsula University College of Law, Mountain View, California; M.A., geology, University of California at Berkeley; B.A., geology and economics, Williams College, Williamstown, Massachusetts; certificate, hazardous materials management, University of California at Santa Cruz Extension; California Registered Environmental Assessor 1-07047; 20 years of experience in environmental impact assessment and project management. Mr. Manitakos served as project supervisor and technical reviewer for this report.

- Mark Stumbaugh, certificate, technical illustration, College of San Mateo, California; 28 years of experience in technical illustration. Mr. Stumbaugh served as technical illustrator for this EA.
• Amanda Tyrrell, B.S., integrated science and technology with a concentration in environmental science, James Madison University, Harrisonburg, Virginia; 4 years of experience in NEPA documentation and environmental database management. Ms. Tyrrell served as research analyst for this EA.

• Cherry Zamora, B.A., geography with an emphasis in physical environmental change, University of California at Berkeley. Ms. Zamora served as research analyst and assisted in preparing this report.

*Code of Virginia*. *Scenic Rivers Act*,
http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+TOC1001000000400000000000000 (July 1, 1948).

Fluhart, David, Planning Director, Accomack County Department of Building, Planning and Zoning. Personal communication with Jeff Coron, SRI International, February 12, 2004.


National Park Service. *Wild and Scenic Rivers by State*,


Natural Resources Conservation Services. *eFOTG*,


President. *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*, Executive Order 12898, 59 *Federal Register* 7629 (February 11, 1994).


Virginia Department of Transportation. *2003 Daily Traffic Count* dataset. Virginia State Highway 175, 0.75 mile east of State Highway 13, data file provided to SRI International (February 2004).
APPENDIX A

AGENCY CORRESPONDENCE AND BACKGROUND INFORMATION
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APPENDIX A
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May 3, 2004

Costa, Lawrence
Project Manager
Defining Environmental Salinity, Data, and Information Service
1000 lettuce Road, Suite 200
Annapolis, MD 21401

Dear Mr. /s/

As the lead agency, the National Aeronautics and Space Administration (NASA) requests
Coastal Management for the following Environmental Assessments (EA) being
prepared for the National Oceanic and Atmospheric Administration (NOAA) by ECO
Laboratories:

1. Environmental Assessment of the Proposed Footprint Survey at Stiltsville and East
Miami, and Waterline Consulting in the Coastal Environmental Study, Data, and
Information Service (NOAA) Vero Beach and Data Acquisition, South
(UCASE), Vero Beach, Florida, and

2. Environmental Assessment of the Proposed Construction of the U.S. Navy
Naval Station Key West (USNS) and the National Environmental Coordinating Study, Data,
and Information Service (NOAA) Vero Beach and Data Acquisition, South
(UCASE), Vero Beach, Florida, and

As the lead agency, NOAA would complete the Final EIS and Draft of No Significant
Impact (DINISI), which would incorporate NASA's environmental assessment and notes that we use
Coastal Management Agency. PBOIS(E) will be prepared for the final EIS with inputting signature
information. The final EIS will be produced with inputting signature
information. The signature page will be included in each PBOIS document for
distribution and filing by the Administration.

If you have any questions or speaking, please contact me. Sheet at (575) 524-1227.

Sincerely,

Jane Davis
Environmental Program Manager
Environmental Management Division
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The National Aeronautics and Space Administration (NASA), through the Goddard Leadership Initiative (GLI), is seeking to fill a Senior Environmental Manager (SEM) position in the Environmental Division of the Office of Safety and Mission Assurance (OSMA). The SEM will be responsible for managing the Environmental Management Program for the Goddard Space Flight Center (GSFC) and ensuring compliance with all regulatory and voluntary environmental requirements. The ideal candidate will have a strong background in environmental science, regulations, and compliance, as well as experience in managing complex projects. The position offers a competitive salary and benefits package, including opportunities for professional development and advancement. If you are interested in this exciting opportunity, please submit your resume and cover letter to: [email address].
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SRH is preparing an Environmental Assessment (EA) conforming with requirements of the National Environmental Policy Act and ensuring compliance with the proposed improvements. A copy of the draft EA report will be provided to your office for review prior to completion of the final EA. We would appreciate your assistance by providing information on the Town’s issues that could be included in the proposed activities among the CED, and to provide for implementation of the proposed actions to offset these issues.

Should you have any questions about this proposed action or the NEPA process, please call me at (732) 546-2345. Thank you for participating in this environmental review and planning process.

Sincerely,

[Signature]

[Name]

Project Lead

Attachment: Project Inclusion Figures

[Name, Title, Date]
March 5, 2004
Mr. Jeffrey L. Comer
President
DEI International
228 Wilco Road, Suite 200
Arlington, VA, 22202-3415

Re: Intersection Command & Data Acquisition System Road Access Improvements, Rt. 175

Dear Mr. Comer:

The Virginia Department of Transportation has reviewed the information provided for the referenced project, and no negative impacts to existing and proposed transportation facilities. Preliminary review of the report does not indicate any negative impacts to the transportation system. The VDOT Local Access Management Study recommendations located widening and shoulder improvements for Rt. 175 and similar to those noted in the scoping report statement.

The access improvement notes coordination with VDOT. The improvement should not adversely impact any existing or future transportation systems. However, careful coordination and consultation with the Assumption Roadway is required to ensure that conflicts are avoided in the current VDOT roadway design preparation. Coordination with the Assumption Roadway is required to ensure the safety and design requirements are met.

You are invited to comment on this project. Please return your comments to me on or before [insert date].

Sincerely,

[Signature]

A. C. (Chip) Ro
Department Head
VIREP

VIRGINIA DEPARTMENT OF TRANSPORTATION

[Address]
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Soil Survey of Accomack County, Virginia

ISSUED SEPTEMBER 1994
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SOIL SURVEY OF ACCOMACK COUNTY, VIRGINIA
SHEET NUMBER 4

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

WALLOPS CDAS ENTRANCE ROAD IMPROVEMENTS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SCALE 1:15 840

5000 Feet 4000 3000 2000 1000 0

1000 Meters 800 600 400 200 0

1 Mile 1 Kilometer

Base maps are orthophotographs prepared by the U. S. Department of the Interior, Geological Survey, from 1982 aerial photography. Coordinate grid ticks and land division corners, if shown, are approximately positioned.
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**Notes:**
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- Kernel Shape: Round or Oval
- Pearl Size: Small, Medium, or Large
- Pearl Color: Black, White, or Brown
- Pearl Value: High, Medium, or Low
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**Table H - Engineering Index Properties - Continued**

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Mr. Jeffrey L. Gove
Project Leader
SEI Enforcement
1116 Willow Blvd.
Suite 240
Arlington, VA 22209-3953

Re: FAA Welfare Flight Facility Seaplane Commuter, Accomacy County

Dear Mr. Gove:

A recent review has been made of information submitted to this office with your

below date of January 31, 2006. Based on the information provided to date, we have

noted that the FAA Welfare Flight Facility is not subject to any general

aviation regulations. The proposed project may require permits from this office for

water utilization and others which would include: storage, treatment, and

disposal. Hence, to get enough information provided to make these determinations.

Would you present with this

project, I suggest you contact this office prior to making further information which

might impede permitting procedure. Your contact will be Mr. Jim McCready at 517-516-

2240 for above water use and Mr. Reid Batchel at 773-318-2515 for wetlands.

I hope this information is helpful to you.

Sincerely,


Harold J. Wiser
Deputy Regional Director

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supplies concentrated at the periphery of tidal marshes often establish semi-permanent camps in this highly productive environment, the disturbance from previous construction at this location lessens its sensitivity. Concerning historic archaeological resources, due to the proximity of the project to the possible Revolutionary War fort at Mosquito Point located approximately 0.75 miles north and to the tidal marshes, the area under review is considered high sensitivity for historic maritime archaeological sites.

No archeological sites are recorded within the project's area of potential effects, but this does not mean that none exist. Further identification efforts are needed. The property has a moderate to high potential to contain significant archeological sites, both historic and prehistoric. Because of the archeological sensitivity of the area we recommend that an identification (Phase I) archeological survey be conducted of all areas that may be affected by ground disturbing activities. The survey shall be conducted by a qualified professional in a manner consistent with the Secretary of the Interior's Standards for Identification (48 FR 44720-23) and our state Guidelines for Archeological Investigations in Virginia. Two copies of the resulting technical report should be submitted to us for review. Once we have the results of the archeological survey, we will be able to advise you whether further steps are needed to reduce, avoid or mitigate effects to archeological resources.

If you have any questions or if we may provide further guidance in the Section 106 review process, please do not hesitate to contact me at (804) 367-2323, ext. 153; fax (804) 367-2391; e-mail roger.kirchen@dhr.virginia.gov. We look forward to working with you and SRI International on this project.

Sincerely,

Roger W. Kirchen, Archaeologist
Office of Review and Compliance

Cc: Jeffery L. Coron, SRI International
    Anne B. Newsom, Department of Environmental Quality
COMMONWEALTH of VIRGINIA
Department of Historic Resources
1900 Kensington Avenue, Richmond, Virginia 23220

July 13, 2024

Mr. Guy James
123 Main Street
Richmond, Virginia 23219

Dear Mr. James,

We have received your letter dated July 7, 2024, regarding the proposals for the proposed project. The Virginia Historical Resources Board (VHRB) has reviewed the materials you have submitted and has determined that the project meets the standards established by the Virginia Historic Landmarks Commission (VHLC) and the National Park Service.

We appreciate your interest in preserving and protecting our historical resources. The VHRB encourages all applicants to seek funding opportunities from other sources, such as grants, donations, and private investments.

Sincerely,

Roger W. King
Executive Director
Office of History and Coordination

Cc: Jeffrey S. Brown, Director, Department of Environmental Quality

Attachment: VHRL-2024-001 - Proposed Project Information
This page intentionally left blank.
The Department of Conservation and Recreation (DCR) functions to conserve and protect the natural resources of the Commonwealth of Virginia and advocate the wise use of its natural, cultural, economic and natural heritage resources. This brochure is designed to provide clear, concise, relevant and practical information to the public about the natural heritage resources of the Commonwealth as well as the DCR’s mission and efforts in protecting these resources. DCR has created BioDec Data System for occurrence of natural heritage resources in the present locality. According to the information currently in our files, the presence of natural heritage resources have been documented in the present locality. However, due to the nature of conservation, we do not anticipate this project will adversely impact these natural heritage resources.

The Virginia Department of Agriculture and Consumer Services (VDACS), which has regulatory authority to conserve yr and endangered plant and animal species through the Virginia Native Plant and Animal Protection Act (H.3), also gathers this information for the Virginia Department of Conservation and Recreation (DCR). Under the Agreement DCR, in coordination with VDACS, ensures VDACS in its routine and recommendations regarding

Conserving Virginia’s Natural and Recreational Resources

A.15
The following federal threatened or federally sensitive species have been documented (approximately 5.5 miles from the nearest known portion of the proposed facility [17.3 miles to 17.2 miles]): egrets (Ardea alba). Therefore, the applicant should coordinate with the U.S. Fish and Wildlife Service and with this Department concerning potential impacts to such species. Contact information for the U.S. Fish and Wildlife Service is as follows: Kacey Mooney, chief, Short Lance, Gloucester, VA 23061, (804) 438-4904 (phone), and (804) 438-5224 (FAX). To contact this Department, call one of our Region 7 WERPS Division Mobilizers, Ruth Goodfellow, at (703) 482-2430. A black survey of an area encompassing the project determined the only special concern great kept 0120 (0.00000000) during the breeding season. As such, the only special concern known rare white (Ardea alba) has been documented within 0.2 mile of the northeastern point of the project area (17.3 miles to 17.2 miles). Additionally, the rare species central rare (0.00000000) has been documented within 0.2 mile of the northeastern point of the project area (17.3 miles to 17.2 miles). In order to avoid adverse effects of any special concern to the listed species, no new development or new road construction shall impact the identified or listed special concern, nor shall any construction or road construction be undertaken in any WERPS buffer or WERPS. WERPS may be contacted by calling the Virginia Department of Conservation and Recreation, Fish and Wildlife, c/o Department of Conservation and Recreation, 1000 E. Market St., Richmond, VA 23219, (804) 546-8900 (phone). WERPS may also be contacted by calling the Virginia Fish and Wildlife Service, 1000 E. Market St., Richmond, VA 23219, (804) 546-8900 (phone). WERPS may also be contacted by calling the Virginia Department of Conservation and Recreation, Fish and Wildlife, c/o Department of Conservation and Recreation, 1000 E. Market St., Richmond, VA 23219, (804) 546-8900 (phone).
There is a processing charge of $50.00 for our response. Please mail a check, made payable to TAMESTERS OF VIRGINIA, within 30 days. To ensure proper credit to your account, please address your remittance exactly as shown below.

This letter summarizes the likelihood of the occurrence of endangered or threatened animal species at the project site. If you have additional questions in this regard, please contact us at (804) 367-1380.

Please note that the data used to develop this response are continuously updated. Therefore, if significant changes are made to your project or if the project has not begun within 6 months of receiving this letter, then the applicant should request a new review of our data.

The Fish and Wildlife Service, the states of Arkansas and Texas, the Arkansas Natural Heritage Program, the Arkansas Natural Resources Commission, the Texas Parks and Wildlife Department, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, the Bureau of Land Management, and the U.S. Army Corps of Engineers, have reviewed the incidental takings of endangered and threatened species included in this statement.

This letter is intended to be used as a guide for the development of the project. For more information, please contact: Fish and Wildlife Information Service, U.S. Fish and Wildlife Service, 5515 Leesburg Pike, Falls Church, VA 22041, telephone (703) 358-2111.

Thank you for your interest in the wildlife resources of Virginia.

Sincerely,

[Signature]

[Title]

[Agency]

[Date]

R.T. Fransen, USFWS
Research Specialist Service

Greetings,

The U.S. Fish and Wildlife Service has received your request to review the attached permit for proposed incidental take of endangered plants for a project located in Virginia. This request is pursuant to the Endangered Species Act (ESA) of 1973, as amended, 16 U.S.C. 1531 et seq. The attached is a list of species with Federal and State protection that may be affected by your project. This list indicates the species that are involved in your project in isolated. This list is prepared by this office and is based on information obtained from previous surveys or endangered species.

In order to ensure compliance with the State Act, we also recommend that individuals contact the Virginia Department of Conservation and Recreation, Division of Natural Heritage or the Virginia Department of Game and Inland Fisheries, state agency responsible for enforcing the State Act. You can contact them at the following address:

Virginia Department of Game and Inland Fisheries
Division of Natural Heritage
227 Commons, 3rd Floor
Richmond, VA 23219
(804) 786-3001

Mr. David J. Cron
11135 Fleetwood Drive, Suite 700
Alexandria, Virginia 22309

B: Project #325

A-99
If either of these agencies determine that your project may impact a federally funded program, or candidate species with federally designated critical habitat, please contact this office and provide a copy of the program letter from such agency and the above referenced project summary to the extent further contact with this office is not necessary. If you have any questions or need further assistance, please contact Mr. Mike Harlston at (515) 324-6814, extension 216.

Karen L. Vente
Regional
Virginia Field Office
The National Oceanic and Atmospheric Administration (NOAA) National Environmental Satellite, Data, and Information Service (NESDIS) operates the Wellness Contained and Data Acquisition System (CODAS), a master satellite control and communications facility located in Accomack County, Virginia (see Figure 2.26). The CODAS is a tenant on the National Aeronautics and Space Administration (NASA) Wallops Flight Facility (WFF) site on Assateague, Virginia. The facility is serviced by Virginia (from Highway Route Number 17). The CODAS was built in 1980, and became operational in 1981.

NESDIS proposes to improve the facility by adding capital improvements to the CODAS facility to support Wallops mission service and satellite service and to modernize equipment and network infrastructure. NESDIS proposes to implement the following specific facility improvements at the Wallops CODAS facility for Fiscal Year 2006:

- Construct a shelter at the north end of the CODAS access road (see attached figure).
- Construct a new water treatment plant to replace the CODAS site water treatment plant (see attached figure).
- Improve the existing storm drain system in accordance with Virginia Department of Health recommendations.
- Construct a new access road for access from existing CODAS water utility site (see attached figure).
- Rebuild the 60 kw emergency diesel generator (see attached figure).
SRU is preparing an Environmental Assessment conforming with requirements of the National Environmental Policy Act and Endangered Species Act analyzing construction of the proposed improvements. We would appreciate your agency’s assistance in providing information on Federal or State listed rare, threatened, or endangered flora or fauna species at the NASA WFP and the potential for implementation of the proposed scheme to impact those resources.

Should you have any questions about this proposed action or the NEPA process, please call me at (703) 574-6004. Thank you for participating in this environmental review and planning process.

Sincerely,
[Signature]
Joba E. Roca
Project Leader

Attachment: Project location figure

cc: F32700 File
KEY

U.S. federally listed endangered.

U.S.-federally listed threatened.

PT—Provisionally threatened.

PT—Provisionally endangered.

EX—Believed to be extirpated in Virginia.

U.S.- listed—federally listed endangered due to similarity of appearance to a federally listed species.

C—candidate species, the U.S. Fish and Wildlife Service has enough information to list the species as threatened or endangered, but the action is prohibited by stare pending litigation.

SUC—specie under consideration. These species that have been identified as potentially endangered or vulnerable throughout their range or a portion of their range. These species are not protected under the Endangered Species Act.

G—global at risk, the species exists throughout its range.

G—extirpated and not currently observed, only 1 or 2 occurrences or the remaining individual, or because of severe factors making it extremely vulnerable to extinction.

G—not currently observed with the 20 occurrences or the remaining individuals, or because severe factors making it extremely vulnerable to extinction.

G—either very northerly located throughout its range or found locally (habitats or status of the species) is not sustainable, or vulnerable to extinction because of other factors. Currently fewer than 100 occurrences are documented.

G—species is in good condition, not at risk. These species would be non-indigenous species are currently endangered. For example, the GSA would apply to a subspecies not in a species with few local geographic range or reduced biodiversity in a species range or in a geographic range (G1) for the subspecies variables that link GTA, critically imperiled.

G—no threat has a qualitative taxonomic assignment.
<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrysothemis melanura</td>
<td>Flying glider</td>
<td>LT</td>
</tr>
<tr>
<td>Hysterothemis laevigata</td>
<td>Ruby eagle</td>
<td>LT</td>
</tr>
<tr>
<td>Cercopis atrata atrata</td>
<td>Northern beach-beat beetle</td>
<td>LT</td>
</tr>
<tr>
<td>Sericinus texanus</td>
<td>Delicately patterned flea beetle</td>
<td>LT</td>
</tr>
<tr>
<td>Catocala curras</td>
<td>Logporous tussock</td>
<td>LT</td>
</tr>
<tr>
<td>Chamaelea pustulata</td>
<td>Seashark sawgrass</td>
<td>LT</td>
</tr>
</tbody>
</table>

**Specifics of Concern**

**Circumcinal Plants**

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polycnemus glaucescens</td>
<td>Georgia's stateland</td>
<td>G1</td>
</tr>
<tr>
<td>Sirex polyphemus var. virginianus</td>
<td>Virginia's stateland</td>
<td>OF72</td>
</tr>
</tbody>
</table>

May 28, 2019
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

444
Bald Eagle
Haliaeetus leucocephalus

Description: The bald eagle is North America's largest and most powerful bird of prey. It has a wingspan of 7-9 ft, and its voice is a loud, powerful hoot. The male and female are identical in appearance. The adult has a completely white head and tail; a white tail; and a dark brown body, wings, and head. It has a partial white outer tail. When the wings are outstretched, the adult male exhibits a small, broad, cream to light tan mandible. The adult female exhibits a larger, broad, cream to light tan mandible. The adult male is slightly larger than the adult female.

Habitat: The bald eagle is a highly mobile bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas.

Behavior: The bald eagle is a highly mobile bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas.

Feeding: The bald eagle is a highly mobile bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas.

Reproduction: The bald eagle is a highly mobile bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas. It is a highly adaptable bird, and can be found in a variety of habitats, including forests, wetlands, and coastal areas.

Conservation: The bald eagle is highly protected, and several federal and state laws protect the species. The bald eagle is listed as a species of special concern in the United States, and is protected under the Endangered Species Act. The bald eagle is also protected under the Migratory Bird Treaty Act. The bald eagle is highly protected, and several federal and state laws protect the species. The bald eagle is listed as a species of special concern in the United States, and is protected under the Endangered Species Act. The bald eagle is also protected under the Migratory Bird Treaty Act.

References:
- U.S. Fish and Wildlife Service (2009). "Bald Eagle (Haliaeetus leuc...
Piping Plover
Charadrius melodus

Description: Piping plovers are small, sandpiper-like birds, about 11-13 inches in length. They have a distinctive call that sounds like a piping noise. The males are dark brown above and white below, with a white forehead and throat. The females are similar but paler. The legs and feet are pink. Piping plovers are found along the Atlantic and Gulf Coasts of the United States and in parts of Mexico.

Habitat: Piping plovers prefer sandy beaches with grassy dunes and small pools of water. They also make use of salt marshes and tidal flats. In the winter, they may be found in the southern United States and Mexico.

Conservation: Piping plovers are protected under the Migratory Bird Treaty Act and the Endangered Species Act. Conservation efforts include the establishment of protected areas and the implementation of habitat management plans. The US Fish and Wildlife Service works closely with other agencies and organizations to protect the piping plover and its habitat.

What You Can Do to Help: To help protect the piping plover, you can:
1. Support conservation efforts by donating to organizations that work to protect the piping plover and its habitat.
2. Report nesting sites to local wildlife officials.
3. Keep dogs off designated piping plover nesting areas.
4. Avoid disturbing nesting pairs.
5. Reduce your impact on natural habitats by reducing litter and protecting native vegetation.

References:

Photo credit: US Fish and Wildlife Service, taken in Florida, USA.

A-A
Virginia Northern Flying Squirrel
Glaucomys sabrinus fuscus

Description: The Virginia northern flying squirrel is found in the central Appalachian region of Virginia and West Virginia. It is a small, brownish-gray squirrel with a bushy tail that is often seen gliding from one tree to another, using its powerful tail for balance. The Virginia northern flying squirrel is noted for its ability to glide up to 80 feet in one leap. It is one of the smallest gliding mammals in the world, and it is the only species of flying squirrel found in Virginia. This species is often confused with the southern flying squirrel, but the Virginia northern flying squirrel has a more restricted range and is found in the eastern part of the state. The Virginia northern flying squirrel is a tropical species and is found in the eastern part of the United States. It is not known to be present in the western part of the state. The Virginia northern flying squirrel is a common species and is often seen gliding from one tree to another, using its powerful tail for balance. This species is often confused with the southern flying squirrel, but the Virginia northern flying squirrel has a more restricted range and is found in the eastern part of the state. The Virginia northern flying squirrel is a tropical species and is found in the eastern part of the United States. It is not known to be present in the western part of the state.

References

U.S. Fish and Wildlife Service
Virginia Fish and Wildlife Service


J. A. J. 45
Loggerhead Sea Turtle
Careta careta

References

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EXISTING AND PROPOSED FACILITIES — 1:24,000 SCALE

NATIONAL WETLANDS INVENTORY MAP

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FEMA FLOODPLAIN MAP (1 OF 3)
KEY TO MAP

- 500-Year Flood Boundary
- 100-Year Flood Boundary
- Zone Designations*
- 100-Year Flood Boundary
- 500-Year Flood Boundary

Base Flood Elevation Line
With Elevation In Feet**
Base Flood Elevation in Feet
Where Uniform Within Zone**
Elevation Reference Mark
Zone D Boundary
River Mile

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

<table>
<thead>
<tr>
<th>ZONE</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Areas of 100-year flood; base flood elevations and flood hazard factors not determined.</td>
</tr>
<tr>
<td>A0</td>
<td>Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.</td>
</tr>
<tr>
<td>AH</td>
<td>Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.</td>
</tr>
<tr>
<td>A1-A30</td>
<td>Areas of 100-year flood; base flood elevations and flood hazard factors determined.</td>
</tr>
<tr>
<td>A99</td>
<td>Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.</td>
</tr>
<tr>
<td>B</td>
<td>Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)</td>
</tr>
<tr>
<td>C</td>
<td>Areas of minimal flooding. (No shading)</td>
</tr>
<tr>
<td>D</td>
<td>Areas of undetermined, but possible, flood hazards.</td>
</tr>
<tr>
<td>V</td>
<td>Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.</td>
</tr>
<tr>
<td>V1-V30</td>
<td>Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.</td>
</tr>
</tbody>
</table>

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance and flood plain management purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas. The coastal flooding elevations shown may differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

For adjoining map panels, see separately printed Index To Map Panels.

Coastal base flood elevations shown on this map include the effects of wave action.

Coastal base flood elevations apply only landward of the shoreline shown on this map.

INITIAL IDENTIFICATION:
DECEMBER 13, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
OCTOBER 1, 1983

FLOOD INSURANCE RATE MAP EFFECTIVE:
JUNE 1, 1984

FLOOD INSURANCE RATE MAP REVISIONS:
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COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
R. Norma Wright, in
Number of Personnel Resources

January 30, 2004

Ms. Jeffrey L. Coons
Project Leader

Mr. Robert S. Dulaney

812 Woodbridge Drive

Vienna, Virginia

12233

RE: NEEDS Road and Utility Projects at Valley's Flight Facility, Chantilly, Virginia

Dear Ms. Coons,

We have received a copy of your January 11, 2004 letter to Mr. Robert Dulaney of the Department of Transportation regarding DVA’s plan for numerous road and utility projects along the Corridor and Data Acquisition Site (CDA) in DVA’s Valley Flight Facility near Chantilly. According to your letter, the project is to include, but not be limited to:

- Construction of dedicated low-cost lanes from the CDA access road to Route 175, both directions.
- Construction of a separate motorized vehicle crossing the CDA in DVA’s Valley Flight Facility to a new office building.
- A thorough review of DVA’s existing drainage system in accordance with Virginia Department of Transportation standards.
- Construction of a separate water supply line, approximately 3/4 mile long, serving the east entrance to the CDA.

Removal of a 6-inch water supply valve from service, by turning off the electricity supply and ensuring the well cap is in place to maintain integrity.

A.O.
Environmental Impact Review

The Department of Environmental Quality (DEQ) is responsible for cooperating Virginia's review of federal environmental documents and ensuring compliance with environmental policies established by the Commonwealth. In this role, we will fulfill federal agency or local properties. The DEQ's role is to conduct a thorough evaluation of the proposed action's potential environmental impacts and to recommend any necessary mitigation measures. This process typically involves public scoping, which gives the public an opportunity to provide input on the proposed project.

Department of Environmental Quality
Office of Environmental Impact Review*

*DEQ’s review is provided as a courtesy to the project sponsors and not as an endorsement. The DEQ does not issue formal approval of projects. Final approval is granted by the appropriate federal, state, or local agency.

FFederal Controversies under the Coastal Zone Management Act

In addition to coordinating the review of DEQ’s Office of Environmental Impact Review documents, DEQ's review process is a federal controversy under the Coastal Zone Management Act (CZMA) as extended. Under the CZMA, any proposed federal action must be reviewed as a federal controversy, to determine its impact on the coastal zone. The CZMA’s review process considers the impact of federal actions on the coastal zone, including the potential for cumulative impacts from multiple federal actions.

A-33
administrated by local agencies. In order to carry out the purposes contemplated with the
VCP, NASA shall comply with all the applicable requirements set forth in Form 53(b) of the
VCP (annexed hereto). In addition, no application for project shall
interfere with the Advisory Policies for Geographic Areas of Particular Concern and the
Advisory Policies for Shoreline Access Planning and Principles, and the
Policies and Procedures for the Protection for the Proposed National Monument
or impact大纲 for the proposed monument. 

The federal interests, dedication may be included in the environment
statement or impact statement for these improvements.

I hope that information is helpful to you. If you have questions about our
environmental impact statement process, please feel free to refer me (via
telephone (301) 346-1132) or Charles M. at the Office of Planning (301-565-3040).

Sincerely,

[Signature]

Elise L. Young
Program Manager
Office of Environmental Impact Review

Enclosures

cc: Ronald J. White, HQ (NGO)
COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Noye Nighty, Jr.
Secretary of Natural Resources

Robert B. Stanley
Executive Director

http://www.deq.virginia.gov

LEGISLATIVE REGULATORY PROGRAMS AFFECTING VIRGINIA'S COASTAL RESOURCE MANAGEMENT ACT OF 1982

Adopted 1

Legislative Oversight- Programmatic Impacting Virginia's Coastal Resource Management Act of 1982

a. Fisheries Management - The program assesses the conservation and replacement of fishery and shellfish resources and the protection of commercial and noncommercial fisheries in maintaining fishery production and recreational opportunities. This involves is administered by the Marine Resources Commission (VMRC) Virginia Code §§22-2.01 to 22-2.11 and the Department of Game and Inland Fisheries (DGIF), Virginia Code §§10.1-121 to 10.1-128.

The State Fisherman's (CFR) Regulatory Program has been added to the Fisheries Management programs. The General Assembly added the Virginia Pesticide Use Act as it relates to the pesticide, ashe, as a use of chapter licensed ppt to contain the TST. The use of TR in fish and wildlife constitute a serious threat to extraneous fish and wildlife. The Pesticide program impacts aquatic wildlife and involves the use of methods and practices that are detrimental to the aquatic wildlife. This legislation is presented in the amendment. The VMRC, DGIF, and Virginia Department of Agriculture & Consumer Services (VDACS) share enforcement responsibilities. Virginia Code §10.1-121.9 to §10.1-128.

b. Submerged Land Management - The management program for submerged lands includes the planning of coastal projects to ensure meaningful off-bottom activities. The program includes a number of specific policies that include submerged lands, shellfish areas, and urban properties. This legislation is administered by the Department of Environmental Quality. This program is implemented by the Marine Resources Commission. Virginia Code §§22.1-73.04 to §§22.1-73.13.

c. Wetlands Management - The purpose of the wetlands management program is to preserve wetlands, prevent their degradation, and accommodate economic development in a manner consistent with wetlands preservation. (1) The Sable wetlands program is administered by the Marine Resources Commission. Virginia Code §§22.1-73.01 to §§22.1-73.08.

(2) The Virginia Water Science Panel program administered by DGIF includes preservation of wetlands -walk data and as needed. Virginia Code §§22.1-44.1 and Quality certification pursuant to Section 62 of the Clean Water Act, x 1-22.
A-42
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Certificate of Publication

We, Gannett Publications, publishers of The Eastern Shore News, a bi-weekly newspaper printed at Tasley, State of Virginia, do hereby certify that the enclosed notice has been published.

Published on: April 3

in the said Eastern Shore News aforementioned.

Attest: Bill Sterling, General Manager
Sandra Johnson, Legal Advertising

Dated today: 04-07-04

Printer's Fee: $161.80

Eastern Shore News
P.O. Box 288, Tasley, Virginia 23441
Phone: 757-787-4440, Fax: 757-787-2370

A copy of the advertisement is attached.
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APPENDIX B

ARCHAEOLOGICAL SURVEY REPORT
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Archaeological Survey of the Proposed Route 179
Turnour Lanes Project, National Environmental
Sculpture, Display, and Information Service (NESDIS),
Wallops Command and Data Acquisition Station
(CDAS), Wallops Island, Accomack County, Virginia

NEPA No. 161748
WMAES Project No. 94-03

Patricia A. Dickey
ARL Headquarters
1100 Wilson Blvd.
Arlington, VA 22209
(703) 247-1425

Patricia A. Dickey
Wallops and Morehead City for Archaeological Researches
The College of William and Mary
P.O. Box 9775
Williamsburg, VA 23185-9775
(757) 221-2700

June 22, 2004

K.D. Stone

Project Director

K.D. Stone
The William and Mary Mims Jr. Archeological Research Grant was solicited to facilitate archeological surveys of the state and local historical landmarks. In the context of the William and Mary Mims Jr. Archeological Research Grant, the purpose was to assess the potential for human habitation and activity within the project corridor. The survey was conducted under an agreement with the DMV, executed as a part of the National Cultural and Archeological Preservation Act. The purpose was to assess the potential for human habitation and activity within the project corridor. The survey was conducted under an agreement with the DMV, executed as a part of the National Cultural and Archeological Preservation Act.
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INTRODUCTION

The William and Mary Zoonarchological Research Project (WMZRP) is an archaeological survey of the project area; the project is sponsored by the Virginia Division of Natural and Historic Resources (DNHR) and the Virginia Division of Archaeology (VDHR). The project is being carried out as a component of the Virginia Division of Natural and Historic Resources (1988) project, "Archaeological Investigations in the Southern Piedmont Region of Virginia," and the Virginia Division of Archaeology (VDHR) project, "Archaeological Investigations in the Northern Piedmont Region of Virginia." The purpose of the survey was to provide valuable information concerning the stratigraphic and archaeological history of the project area and to enhance our understanding of the cultural and historical processes that have shaped the region. The survey was carried out on behalf of the National Science Foundation (NSF) and the Virginia Division of Archaeology (VDHR) and in cooperation with the Virginia Division of Natural and Historic Resources (DNHR) and the Virginia Division of Archaeology (VDHR).

The proposed project is located in the northern portion of the Blue Ridge Mountains of Virginia, near the town of Clarion, and is the result of a joint effort between the Virginia Division of Natural and Historic Resources (DNHR) and the Virginia Division of Archaeology (VDHR). The project area is comprised of approximately 150,000 acres of public land managed by the Virginia Department of Conservation and Recreation (VDCR) and the U.S. Forest Service (USFS). The project area is characterized by a rugged mountainous landscape with rolling hills and valleys, rugged rocky outcrops, and steep slopes.

The proposed project is located in the northern portion of the Blue Ridge Mountains of Virginia, near the town of Clarion, and is the result of a joint effort between the Virginia Division of Natural and Historic Resources (DNHR) and the Virginia Division of Archaeology (VDHR). The purpose of the survey was to provide valuable information concerning the stratigraphic and archaeological history of the project area and to enhance our understanding of the cultural and historical processes that have shaped the region. The survey was carried out on behalf of the National Science Foundation (NSF) and the Virginia Division of Archaeology (VDHR) and in cooperation with the Virginia Division of Natural and Historic Resources (DNHR) and the Virginia Division of Archaeology (VDHR).
Figure 1. Project corridor and environs (USGS 1989).
Figure 2. Proposed sanitary plan.
The survey represents an effort to fill this gap in our knowledge of the extent and character of archaeological sites and their potential for the extension of our understanding of the prehistory of the Baltic region. It was carried out by the Vaasa Archaeological Survey in cooperation with the University of Vaasa and the Vaasa City Museum. The survey was conducted by a team of archaeologists and museum workers who were trained in the methodology of the survey and had experience in the identification and recording of archaeological sites.

The survey covered an area of approximately 100 square kilometers around the town of Vaasa, focusing on the coastal area and adjacent uplands. The survey was carried out using a combination of techniques, including fieldwalking, aerial photography, and ground-penetrating radar. The results of the survey were published in a report that includes a detailed description of the sites identified, their dates, and their significance for the understanding of the prehistory of the area.

The survey identified a number of sites that are important for understanding the prehistory of the region. Some of these sites include: a Neolithic settlement, a Iron Age village, and a Viking Age trading post. These sites provide valuable information about the way of life and culture of the people who lived in the area in the past.

The survey also identified a number of other sites that are important for understanding the prehistory of the region. Some of these sites include: a Roman fort, a medieval castle, and a modern industrial complex. These sites provide valuable information about the way of life and culture of the people who lived in the area in the past.

The survey was funded by the Finnish Heritage Agency and was carried out in cooperation with the University of Vaasa and the Vaasa City Museum. The survey was conducted by a team of archaeologists and museum workers who were trained in the methodology of the survey and had experience in the identification and recording of archaeological sites.
Figure 3. Previously identified archaeological sites within a 1.6-km (1-mi.) radius of the project corridor.
innovation from the Paleolithic period by 10,000-9000 B.C. through the Last Woodland period (A.D. 500-1650).

For the peoples of a Phase I technologically scene of eastern shoreline, in particular, the most characteristic and distinctive technological features of the period include the following:

1. Ground stone tools, particularly in the form of small, thin, flake knives and scrapers, were characteristic of eastern shoreline people during this period. Ground stone tools were used for a variety of purposes, including cutting, scraping, and dart points. They were also used as weapons, and sometimes as tools for making other tools.

2. Shell gorgets, or decorative ornaments, were another characteristic feature of the Period. These were made from mollusk shells and were used as personal ornaments or as decorative elements in clothing. They were often highly ornamented and were used by both men and women.

3. Bone awls, or pointed tools used for piercing or sewing, were also common during this period. They were made from bone and used for a variety of purposes, including clothing, leather, and other materials.

4. The Period also saw the introduction of pottery, which was used for cooking, storage, and other purposes. Early pottery was typically coiled or modeled and was decorated with simple incised or stamped designs.

5. The Period also saw the development of large-scale ceremonial centers, such as the one at Cahokia. These centers were used for religious and social gatherings, and were often associated with mound complexes and other large-scale structures.

This was a time of great innovation and change, as people continued to adapt to the changing environment and to develop new technologies and social institutions.
Early National Period (1789-1801)

By the early nineteenth century, many had become nostalgic for the magisterial early stage. Housing, judicial system based on traditional procedures were also developing. Agricultural growth continued, but the focus was on subsistence farming. The federal government was rearranged internally. The U.S. Constitution of 1787 took effect in 1789-1801, during Andrew Jackson's presidency.

The War of 1812 had a profound impact in many ways, coming after several years of U.S. involvement in Virginia. This period also saw the emergence of the American foreign policy, which continued to influence U.S. foreign policy throughout the 19th century. The War of 1812 ended with a treaty, the Treaty of Ghent, which restored the pre-war status quo.

The War of 1812 taught the nation the value of preparedness and the importance of maintaining a strong military. The end of the war also allowed Andrew Jackson to focus on internal improvements, such as the development of the canal system and the establishment of the University of the South. Andrew Jackson's presidency ended in 1829, leading to the presidency of John Quincy Adams, who continued to promote the expansion of the United States.

Andrew Jackson's (1829-1837)

Andrew Jackson's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Florida from Spain and the annexation of Texas from Mexico. He also faced significant challenges domestically, including the outbreak of the War of 1812 and the rise of the Whig Party. Jackson's presidency ended in 1837, leading to the presidency of Martin Van Buren, who continued to promote the expansion of the United States and the development of the railroads.

Martin Van Buren's (1837-1841)

Martin Van Buren's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Oregon from Britain and the annexation of California from Mexico. He also faced significant challenges domestically, including the Panic of 1837 and the rise of the Whig Party. Van Buren's presidency ended in 1841, leading to the presidency of James K. Polk, who continued to promote the expansion of the United States and the development of the railroads.

James K. Polk's (1841-1849)

James K. Polk's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Oregon from Britain and the annexation of California from Mexico. He also faced significant challenges domestically, including the Panic of 1841 and the rise of the Whig Party. Polk's presidency ended in 1849, leading to the presidency of Zachary Taylor, who continued to promote the expansion of the United States and the development of the railroads.

Zachary Taylor's (1849-1850)

Zachary Taylor's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Oregon from Britain and the annexation of California from Mexico. He also faced significant challenges domestically, including the Panic of 1849 and the rise of the Whig Party. Taylor's presidency ended in 1850, leading to the presidency of Millard Fillmore, who continued to promote the expansion of the United States and the development of the railroads.

Millard Fillmore's (1850-1853)

Millard Fillmore's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Oregon from Britain and the annexation of California from Mexico. He also faced significant challenges domestically, including the Panic of 1850 and the rise of the Whig Party. Fillmore's presidency ended in 1853, leading to the presidency of Franklin Pierce, who continued to promote the expansion of the United States and the development of the railroads.

Franklin Pierce's (1853-1857)

Franklin Pierce's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Oregon from Britain and the annexation of California from Mexico. He also faced significant challenges domestically, including the Panic of 1852 and the rise of the Whig Party. Pierce's presidency ended in 1857, leading to the presidency of James Buchanan, who continued to promote the expansion of the United States and the development of the railroads.

James Buchanan's (1857-1861)

James Buchanan's presidency was marked by several significant events. He continued to promote the expansion of the United States, including the acquisition of Oregon from Britain and the annexation of California from Mexico. He also faced significant challenges domestically, including the Panic of 1858 and the rise of the Whig Party. Buchanan's presidency ended in 1861, leading to the presidency of Abraham Lincoln, who continued to promote the expansion of the United States and the development of the railroads.
shared some stories on the beach and then played on the cliffs. She then went on to discuss the evolving nature of coastal management and the importance of understanding and respecting the natural environment.

In 1993, the Virginia Department of Natural Resources and the University of Virginia's Center for Environmental Studies conducted a comprehensive study of the Virginia Coastline. Their findings highlighted the need for a more integrated approach to coastal management, emphasizing the importance of considering the ecological, economic, and social dimensions of coastal issues. The study recommended the establishment of a Coastal Resources Management Program to address these challenges.

The Virginia Coastal Zone Management Act (VCZMA) was passed in 1993, providing a legal framework for the management of Virginia's coastal resources. The Act emphasized the importance of conservation, economic development, and public health and safety, establishing a comprehensive approach to coastal management in Virginia.

In conclusion, the Virginia Coastline is a valuable and vulnerable resource that requires careful stewardship. The Virginia Coastal Zone Management Act has served as a guiding principle for coastal management efforts, ensuring that Virginia's scenic beauty and natural resources are preserved for future generations.

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In conclusion, the Virginia Coastline is a valuable and vulnerable resource that requires careful stewardship. The Virginia Coastal Zone Management Act has served as a guiding principle for coastal management efforts, ensuring that Virginia's scenic beauty and natural resources are preserved for future generations.
While the federal study (Virginia and the Virginian Coast (1964)) aimed at determining how best to conserve and develop the coastal areas along Virginia’s coast, the Virginia Coastal Zone Management Act (1968) provided the legal framework to implement the recommendations.

Following a dramatic rise in 1962, sea-level measurements at the National Oceanic and Atmospheric Administration (NOAA) station in Manteo, North Carolina, approached a plateau in the late 1960s. Nonetheless, the NOAA station in Millville, Delaware, and the U.S. Geological Survey station in Harford, Maryland, showed a continuing rise in sea-level measurements, particularly in the Southeastern United States. The rise was attributed to isostatic and tectonic processes, as well as Anthropogenic inputs such as increased ocean temperatures and oceanic currents.

Sea-level rise, which has been accelerated by the influx of freshwater from glaciers, has led to the drying of coastal wetlands, the loss of tidal ecosystems, and an increase in coastal flooding. In addition, the rise in sea-level has caused increased storm surges, which can lead to flooding and erosion, particularly in areas with low elevation and high population density.

In conclusion, the study conducted by the NOAA and the Virginia Coastal Zone Management Act have contributed to the understanding of sea-level rise and its implications for coastal communities. Continued monitoring and research are necessary to improve our understanding of the factors influencing sea-level rise and to develop effective strategies for adapting to the impacts of rising sea-levels.
Sediment core samples were taken at the mouths of rivers in the area to determine the nature of the stratigraphic deposits. The cores were analyzed for their organic and inorganic content, and the results were used to infer the historical climate and environmental conditions. The sediment cores showed a clear pattern of deposition, with layers corresponding to different time periods.

In addition, the cores were analyzed for their magnetic properties, which provided further insights into the environmental conditions. The magnetic properties of the sediment cores were compared to modern standards to determine the magnetic susceptibility of the sediments. This information was used to infer the presence of magnetic minerals, which are commonly found in sediments deposited in cold, dry climates.

The results of the sediment core analysis were then used to interpret the stratigraphic record and to infer the history of the region. The stratigraphic record showed a clear pattern of deposition, with layers corresponding to different time periods. The results of the sediment core analysis were then used to infer the history of the region.
Table 2. Summary of archaeological resource identified during survey.

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Quantity</th>
<th>Deposits</th>
<th>( \text{from} ) to ( \text{to} )</th>
<th>( \text{from} ) to ( \text{to} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location A</td>
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<td>Undated pottery</td>
<td>1970</td>
<td>1975</td>
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<td>Location B</td>
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<td>Undated pottery</td>
<td>1970</td>
<td>1975</td>
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<td>Location C</td>
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<td>Undated pottery</td>
<td>1970</td>
<td>1975</td>
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<tr>
<td>Location D</td>
<td>Independent Find</td>
<td>1</td>
<td>Undated pottery</td>
<td>1970</td>
<td>1975</td>
</tr>
</tbody>
</table>

Legend:
- Independently: Identified during site survey.
- Undated pottery: Pottery without a specific date range.

RESEARCH SUMMARY

Independent research involved a protocol for excavation set out in the excavation of one of the key sites. The project identified a number of significant archaeological features, including deposits of undated pottery ranging from the 1970s to the 1975s. The research was conducted in collaboration with local historians and archaeologists. The findings indicate that the project provides valuable insights into the regional and national history of the area.
floor and subsoil layers were exposed during the survey and in some cases certain features in the superstructure were uncovered. All such features were examined, photographed, and sketched as necessary.

No significant archaeological remains were observed during the project activities, and the absence of prehistorically eligible remains, in the opinion of the consultant, no further work is warranted.
Appendix A:
Artifact Inventory
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Section 1: Stocking Dates</th>
<th>Section 2: Harvest Dates</th>
<th>Reel Size Code: Conventional</th>
<th>Reel Size Code: Microfiber</th>
<th>Reel Size Code: Evolution</th>
<th>Reel Size Code: Reel Size Code:</th>
<th>Reel Size Code: Reel Size Code:</th>
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<td>Date 2</td>
<td>Size 1</td>
<td>Size 2</td>
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<td>Item 3</td>
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<td>Date 2</td>
<td>Size 1</td>
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<td>Size 3</td>
<td>Size 4</td>
<td>Size 5</td>
<td>Size 6</td>
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<td>Route</td>
<td>Length</td>
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<td>Companies</td>
<td>Rents</td>
<td>Weighting</td>
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<td>1.5</td>
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<td>157</td>
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<td>Hines</td>
<td>90</td>
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<td></td>
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</tbody>
</table>
Appendix B:
Letter By Virginia Department of Historic
Resources Requiring Current Archaeological Survey
[Image]
Appendix C:
Curriculum Vitae of Report Author
1954 The Annual Names of SCOPPS. Report submitted to UHRC, Peter Darrow, Daniel Darrow, Nellie D. Darrow, James, Father.
1965 Palynology, Duke City.
1966 Palynology, Duke City.
1968 Palynology, Duke City.

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APPENDIX C

EA DISTRIBUTION LIST
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APPENDIX C

EA DISTRIBUTION LIST

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Town of Chincoteague  
6150 Community Drive  
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Mr. Gerald P. Wilkes, State Geologist  
Department of Mines, Minerals, and Energy  
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Mr. Harold Winer, Regional Deputy Director  
Virginia Department of Environmental Quality  
Tidewater Regional Office  
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