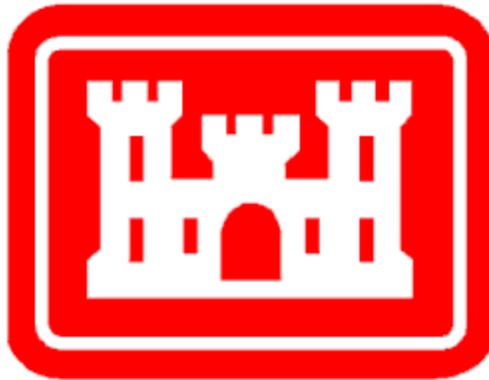


DRAFT ENVIRONMENTAL ASSESSMENT

SECTION 202 DICKENSON COUNTY NONSTRUCTURAL PROJECT  
DICKENSON COUNTY PUBLIC SCHOOLS  
CONSOLIDATED MIDDLE/HIGH SCHOOL COMPLEX  
DICKENSON COUNTY, VIRGINIA



U.S. ARMY CORPS OF ENGINEERS

HUNTINGTON DISTRICT

HUNTINGTON, WEST VIRGINIA

NOVEMBER 2012

FINDING OF NO SIGNIFICANT IMPACT  
SECTION 202 DICKENSON COUNTY NONSTRUCTURAL PROJECT  
DICKENSON COUNTY PUBLIC SCHOOLS  
CONSOLIDATED MIDDLE/HIGH SCHOOL COMPLEX  
DICKENSON COUNTY, VIRGINIA

1. Members of my staff in coordination with staff of the U.S. Department of Agriculture, Rural Development conducted an Environmental Assessment, in the overall public interest, concerning implementation of the Dickenson County Public Schools Consolidated Middle/High School, Section 202 Project. The purpose of this project is to reduce the risks to health and human safety for students, staff, and area residents by establishing adequate school facilities out of the floodplain and removing existing flood prone school facilities. The proposed project is authorized by Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367), as amended.
2. The possible consequences of the project were studied for environmental, cultural, health and safety, and social well-being effects.
3. The Proposed Action Alternative (PAA) and the No Action Alternative (NAA) were the only alternatives carried forward for detailed evaluation. The PAA involves providing for federal funding toward the construction of a consolidated middle/high school complex in north-central Dickenson County and demolition of existing school facilities at Sandlick Elementary, Clinchco Elementary, Ervinton High, and several ancillary structures at Haysi High. The PAA is socially-acceptable, cost-effective, and responsive to the needs of area residents while seeking to minimize environmental impacts. The NAA would not be in the public's best interest and current schools would remain in the floodplain and continue to pose risk to human safety of students, staff, and area residents.
4. An evaluation of the PAA and the NAA produced the following pertinent conclusions:
  - a. Environmental Considerations. The Huntington District took reasonable measures to assemble and present the known or foreseeable environmental impacts of the project in the Final Environmental Assessment (FEA). These impacts involve biological and human resources. The school facilities will be well above corresponding elevations of the 100-year flood and 1977 at its proposed location. Flood related health and human safety risks to students, staff, and residents will be reduced by the PAA. Unavoidable impacts to streams and wetlands are anticipated under the PAA. Compensatory mitigation will be performed by the Dickenson County Public Schools (DCPS) to sufficiently account for impacts. The PAA will require a Section 404 Individual Permit, Section 401 Virginia Water Protection Permit, and a Virginia Marine Resources Commission General Permit. An approved Erosion and Sediment Control Plan (ESCP), Virginia Stormwater Management Program (VSMP) permit, and Virginia Pollutant Discharge Elimination System permit will also be required and obtained. All permits will be acquired prior to the initiation of construction. There will be temporary increases in noise levels in the vicinity of the proposed project site during construction but analysis has determined anticipated levels not to be above health endangering thresholds or intolerable.
  - b. Social Well-Being Considerations. The proposed project will provide school facilities in accordance with Virginia Department of Education Guidelines for students of Dickenson County. The school will be open to the public and students throughout the county will be permitted to attend regardless of race, ethnicity, or income level. No negative economic or social well-being impacts are foreseen as a result of the proposed project.

- c. Coordination with Resource Agencies. Pursuant to the Fish and Wildlife Coordination Act (FWCA) of 1958, coordination with the U.S. Fish and Wildlife Service (FWS) was conducted. Coordination with the Virginia Department of Historic Resources (DHR), Virginia Department of Environmental Quality (DEQ), Virginia Marine Resources Commission (VMRC), Virginia Department of Conservation and Recreation (DCR), and Virginia Department of Game and Inland Fisheries (VDGIF) was also established through the National Environmental Policy Act (NEPA) process. Appropriate measures and best management practices were identified and incorporated into the PAA. Also, in accordance with the Endangered Species Act, as amended, no adverse impacts to Threatened or Endangered Species, or their critical habitats are anticipated under the recommended plan.
- d. Other Pertinent Compliance. No prime or unique farmland under the Farmland Protection Policy Act will be involved. The PAA aligns with Executive Order 11988 by reducing flood risks and associated losses, preventing floodplain development, and restoring natural and beneficial functions to portions of the floodplain. In accordance with established Corps of Engineers Hazardous, Toxic, and Radioactive Waste (HTRW) policies (ER 1165-2-132), Phase I HTRW Investigations were completed for the PAA. During the period of construction, there may be local and minor deterioration of air quality from fugitive dust and emissions from equipment. However, *de minimis* levels of direct emissions of a criteria pollutant or its precursors will not be exceeded, as determined pursuant to Section 176 (c) of the Clean Air Act.
- e. Other Public Interest Considerations. There was no significant opposition to the PAA by resource agencies, state or local governments, or organized environmental groups. Comments received during the public review period were included in the FEA. There are no unresolved issues regarding the implementation of the project.
5. I find the Dickenson County Public Schools Consolidated Middle/High School, Section 202 Project to be planned accordance with current authorization as described in the FEA. The project is consistent with National policy, statutes, and administrative directives. This determination is based on thorough analysis and evaluation of the project and alternative courses of action. In conclusion, I find the proposed Dickenson County Public Schools Consolidated Middle/High School, Section 202 Project will have No Significant Adverse Impacts on the quality of the human and/or natural environment and preparation of an Environmental Impact Statement (EIS) is not necessary.

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Date

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Steven T. McGugan  
Colonel, Corps of Engineers  
District Engineer

SECTION 202 DICKENSON COUNTY NONSTRUCTURAL PROJECT  
DICKENSON COUNTY PUBLIC SCHOOLS  
CONSOLIDATED MIDDLE/HIGH SCHOOL COMPLEX  
DICKENSON COUNTY, VIRGINIA

RESPONSIBLE AGENCY: U.S. Army Corps of Engineers, Huntington District

COOPERATING AGENCY: U.S. Department of Agriculture, Rural Housing Service

ABSTRACT: Following the widespread and devastating flood of 1977, Congress enacted legislation to allow the USACE to evaluate potential flood risk management measures within the Tug and Levisa Fork watersheds of the Big Sandy River Basin. This legislation, Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367), as amended provides the authority and framework for establishing and implementing flood risk management measures in these watersheds.

Following enactment of authorizing legislation, the Corps prepared a Flood Damage Reduction Plan evaluating structural and non-structural alternatives to address flooding in Levisa Fork Basin. The 1998 Final Environmental Impact Statement (FEIS) Levisa Fork Basin, Flood Damage Reduction Plan was completed subsequent to the plan. This Environmental Assessment (EA), pursuant to compliance with the National Environmental Policy Act of 1969, supplements the 1998 EIS and provides for detailed evaluation of the currently proposed actions for schools eligible for relocation under the 202 program within Dickenson County, Virginia.

This EA documents analysis of various potential school relocation sites and their effect on human and natural environments. Implementation of the proposed alternative provides adequate and flood safe middle/high school facilities, in accordance with Virginia Department of Education (VDOE) guidelines, for the students of Dickenson County. Additionally, the proposed alternative is socially-acceptable, cost-effective, and responsive to the needs of area residents while seeking to minimize environmental impacts.

The proposed project is authorized under Section 202 of the Energy and Water Development Appropriation of 1981 (P.L. 96-367), as amended, The Supplemental Appropriations Bill of 1984 (P.L. 99-662), Section 103b of the Water Resources Development Act of 1986 (P.L. 99-662), Section 105 of Public Law 96-367 (November 1996), Section 103(m) of the Water Resources Development Act of 1986 (P.L. 99-662), and Rural Development Instruction Part 1942, Subpart A.

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# **SECTION 1 – Introduction**

## ***1.1 Foreword***

The brief and concise nature of this document is consistent with the 40 CFR 1500-1508 regulatory requirements of the National Environmental Policy Act (NEPA) to reduce paperwork and delay by eliminating duplication with existing environmental documentation, incorporating pertinent material by reference, and emphasizing interagency cooperation. Furthering these NEPA objectives, the U.S. Army Corps of Engineers, Huntington District (USACE) and the U.S. Department of Agriculture Rural Housing Service (USDA) have worked cooperatively to complete this joint Environmental Assessment (EA). As both agencies are contributing Federal funds to the proposed project, this EA was prepared to fulfill both agencies obligations under NEPA

The scope of USDA's federal action is limited to the issuance of a loan for the high school facilities. The USACE scope and involvement is broader than that of the USDA, as it provides funding for the demolition of existing schools as well as funding for elementary, middle, and high school facilities. Given the larger scope and involvement of the USACE, the agencies have agreed to designate the Corps as lead federal agency in accordance with 40 CFR 1501.15. Therefore, for the purposes of this NEPA evaluation, the proposed actions associated with the USACE's scope will be considered, given it will encompass the effects of USDA's contribution to the overall project. Correspondence between the two agencies can be found in Appendix A. Most sources of information which are referenced throughout this Draft Environmental Assessment (EA) are included as Appendices. Any source referenced that is not included within the appendices is available upon request or is accessible online. The *New Dickenson County Consolidated High School Campus Environmental Assessment* completed by The Lane Group, Inc. serves as the primary source of information for this Draft EA. The EA completed by The Lane Group, Inc. is located in Appendix B.

## ***1.2 Background***

In April 1977, a severe widespread flood event occurred throughout the Big Sandy and Cumberland River Basins. Dickenson County, located entirely within the Big Sandy River Basin, experienced devastating flooding affecting hundreds of homes, businesses, schools, and other infrastructure within the county. Shortly after the flood of 1977, Congress enacted legislation authorizing the USACE to evaluate potential flood risk management measures within the two basins. This legislation, Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367), as amended, provides the authority and framework for establishing and implementing flood risk management measures in the Tug Fork and Levisa Fork watersheds of the Big Sandy River Basin and the Upper Cumberland River Basin.

Pursuant to the Authorization referenced above, several studies relevant to the proposed project were undertaken, a brief summary of each is provided below:

1. 1998 Final Environmental Impact Statement (FEIS) Levisa Fork Basin, Flood Damage Reduction Plan. The scope of this document evaluated structural and non-structural measures to address flooding in the those floodplain areas that would be affected by a recurrence of the April 1977 flood within the Levisa Fork and Russell Forks of the Big Sandy River Basin in Kentucky and Virginia. Several plans to reduce flood damages were identified including a reservoir at Haysi, VA. However, the plan was never implemented due to lack of local sponsorship and environmental concerns.
2. The 2003 Detailed Project Report (DPR) contained in Appendix V Dickenson County, Virginia, of the Section 202 General Plan Nonstructural Project determined the eligibility of residential, public/governmental, and commercial structures under Section 202 Authority (herein referred to as “202 Program”) and identified a preferred plan to reduce flood risks within Dickenson County. Under the Program structures are essentially eligible if they were impacted by the 1977 flood event. Various factors discussed in the DPR determine the type of nonstructural solution that is appropriate on a structure-by-structure basis. For example, any structure that is located in the regulatory floodway, the portion of floodplain with the greatest depths and swiftest currents, is only eligible for relocation by acquisition and cannot be elevated in place. Participation in the Section 202 Program is voluntary and determined by the owner of the given structure. Clinchco Elementary School, Sandlick Elementary School, Ervinton High School, and several structures on the Haysi High School Campus were impacted by the 1977 flood and are eligible for the Program. The four eligible schools are part of the county-wide Section 202 Dickenson County Nonstructural Project, but were prioritized for implementation under the DPR. The 2003 DPR included an EA which concluded in a Finding of No Significant Impact (FONSI). It is notable that the preferred plan was very general identifying a variety of nonstructural measures including floodplain evacuation, floodproofing, a Flood Warning Emergency Evacuation Plan (FWEEP), and enforcement of floodplain regulations.
3. In August of 2010, the USACE completed a Design Document Report (DDR) that specifically evaluated the cost of various non-structural measures for the eligible schools in accordance with guidelines of the Section 202 Program. The DDR serves to establish the USACE’s financial contribution toward flood risk management measures for the eligible schools. In short, the DDR ascertains the compensable interest of protecting and/or replacing the eligible facilities and functions provided by such facilities in accordance with Virginia Department of Education guidelines (VDOE) for public schools and Section 202 Program standards. Subsequent to the completion of the DDR, the USACE executed a Floodproofing Agreement for Clinchco Elementary and a Relocation Agreement for Sandlick Elementary, Ervinton High, and ancillary facilities at Haysi High with the Dickenson County Public Schools (DCPS). The DCPS is the owner of all schools. As the owner, the DCPS has the ability to pursue alternative plans so long as such plans meet Section 202 Program protection standards. However, the DCPS is only eligible for the amount of funding agreed upon in the Floodproofing and Relocation Agreements to relocate or floodproof functions of those existing facilities. A copy of the

DDR can be found in Appendix D and copies of the Floodproofing and Relocation Agreements can be found in Appendix E.

As the 2004 EA was completed to supplement the 1998 EIS, this EA is being accomplished to tier from and supplement the 2004 EA. In accordance with Council of Environmental Quality Regulations for Implementing NEPA (40 CFR Sec. 1502.20), this EA is being accomplished as a result of more specific information being available for the portion of the county-wide project addressing Dickenson County Schools which are eligible under the Section 202 Program. This EA incorporates the 2004 EA by reference and supplements this previous analysis with additional site specific information to assess potential impacts to the natural and human environments associated with the relocation of the schools. The 2004 DPR and EA can be found in Appendix C.

The Dickenson County Industrial Development Authority (IDA) is in the process of securing a loan from the USDA Rural Housing Services Program for the construction of a consolidated high school facility. While the scope of the agreements between the USACE and the DCPS involve the replacement of facilities and function associated with existing eligible elementary, middle, and high schools, funding from the USDA loan will only be applicable to costs associated with the high school portion of the proposed project.

### ***1.3 Purpose and Need***

The primary purpose of the proposed project is to reduce the risks to health and human safety for students, staff, and area residents by establishing adequate school facilities out of the regulatory floodplain and above flood heights associated with the 1977 flood event. Occupants of these structures are at risk of injury in the event of a flood. Moreover, the current situation presents additional risks to life and safety of students, faculty, and first responders created by floodwaters making access routes to and from the schools impassable.

In addition to the risk to human safety, potential future flooding would present significant economic losses. Moving schools from flood hazard areas significantly reduces the likelihood of future financial burdens associated with post flood recovery and floodplain development will be prohibited on the existing school properties through deed restrictions that will exist in perpetuity.

### ***1.4 Authority***

The proposed Dickenson County Public Schools Consolidated Middle/High School Complex Section 202 Project is authorized by the following legislation:

1. *Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367, as amended)* provides the overall authority for implementing and directing the construction, at full federal expense, of flood risk management measures in the Tug Fork and Levisa Fork of the Big Sandy River Basin and the Upper Cumberland River Basin.

2. *The Supplemental Appropriations Bill of 1984 (P.L. 98-332)* directs the Secretary of the Army to implement immediately nonstructural flood risk management measures such as relocation sites, floodproofing and floodplain acquisition and evacuation.
3. *Section 103b of the Water Resources Development Act of 1986 (P.L. 99-662)* specifies that the non-Federal share of the cost of nonstructural flood risk management measures shall be 25 percent of the total project cost.
4. *Section 103(m) of the Water Resources Development Act of 1986 (P.L. 99-662)* provides guidelines under which the non-Federal sponsor can qualify for a reduction of the maximum non-Federal cost share.
5. *Section 105 of Public Law 96-367 (November 1996)* states that nonstructural flood risk management measures implemented under Section 202(a) of P.L. 96-367 shall prevent future losses that would occur from a flood equal in magnitude to the April 1977 level by providing protection from the April 1977 level or the 100-year frequency event whichever is greater.
6. *Rural Development Instruction Part 1942, Subpart A*, specifies how Rural Development funding may be utilized for Community Facilities.

### ***1.5 Project Location / Regional Setting***

The proposed project is located within Dickenson County, Virginia. Dickenson County, the youngest county in Virginia, was established in 1880 and is located on the Appalachian plateau in Southwest Virginia. With an area of 335 square miles, elevations within the county range from 1,200 to 3,137 feet above mean sea level. The Town of Clintwood is the County Seat. Pine Mountain forms the northwestern boundary between Dickenson County and the State of Kentucky. Three bordering counties include Buchanan County situated to the northeast, Wise County to the southwest, and Russell County to the southeast. Dickenson County is situated entirely within the Big Sandy River Basin. Principal streams within the county include the Pound River, Cranes Nest River, McClure River, Russell Fork River, Lick Creek, and Caney Creek. John W. Flannagan Dam and Reservoir operated by the USACE is formed by the Pound and Cranes Nest Rivers. Breaks Interstate Park, shared by Kentucky and Virginia is one of only two interstate parks in the U.S. A portion of the park is situated within the far northeastern corner of the county. The Russell Fork runs down a deep five-mile long canyon through the park. Whitewater recreation is quite popular on the Russell Fork, attracting thousands of recreationists annually. Two general location maps of the proposed project are included in Exhibit 1 of Appendix F,

The mountainous surface of the county is characterized by small streams separated by sharply rising ridges, steep slopes, and narrow valleys. The combination of narrow valleys and steep slopes contribute to high flooding potential in certain areas throughout the county. More

than 80% of the county is forested with portions being located within the Jefferson National Forest. However, the vast majority of property within the county is privately owned, mostly by corporations. The grassy, mountainous terrain makes portions of the county suitable for raising beef cattle as well as growing hay and tobacco crops. Coal mining has also long been and continues to be a major industry as the county is among the leading producers in Virginia. Natural gas is also a significant resource and industry within Dickenson County. The county is the leading producer of natural gas statewide.

## **SECTION 2 – Alternatives and Proposed Action**

### ***2.1 Proposed Action Alternative (PAA)***

The PAA involves the construction of a new consolidated middle/high school complex in north-central Dickenson County and demolition of existing school facilities at Sandlick Elementary, Clinchco Elementary, Ervinton High, and several ancillary structures at Haysi High. Federal funding from the USACE will be used for the construction of the new consolidated complex and for demolition of the existing schools as appropriations allow. Funds from a USDA Federal loan will be used for the construction of the high school portion of the facilities at the new consolidated complex.

The proposed site is located along Route 637 in the Rose Ridge community (Exhibit 2 of Appendix F). Site selection was based on a study completed by the Lane Group, Inc. on behalf of the DCPS in May 2011. This alternative sites analysis evaluated the suitability of 17 potential sites throughout the county for construction of a consolidated middle/high school complex. The site meets the size requirements established by the analysis and does not have deed restrictions which would prohibit construction activities. Development costs for this site are estimated to be moderate. Of the 17 sites evaluated, it is one of the closest sites relative to the population center of the county. Additionally, the campus is well above the 100-year regulatory floodplain and inundation limits of the 1977 flood event. The complete report is included as Appendix G.

The school includes 222,000 square feet of classrooms, labs, special education areas, vocational/career technical facilities, food service, administration, physical education, and areas designed for use by the community. In addition, the project includes the construction of athletic fields, parking lots, and roadways necessary to allow for the proper entrance and exit of the campus. Minor improvements along Route 637, such as curve widening and the addition of a bus lane, will be necessary to comply with Virginia Department of Transportation (VDOT) safety regulations. The facility will be served by an existing public water system. A package wastewater treatment plan will be constructed to treat wastewater generated at the site. Treated effluent will then be discharged into the Cranes Nest River under permitted conditions. The acquisition of approximately 107 acres, which is divided into three tracts, will be necessary to accomplish the construction of the proposed school facilities. An easement will need to be acquired on two additional properties for the proposed sewer alignment. One of the properties is within the boundaries of John W. Flannagan Dam and Reservoir Project owned by the USACE. The DCPS has initiated the process of obtaining an easement by submitting required materials to the USACE. Maps of the proposed school layout are included in (Exhibit 3 of Appendix F).

A rating matrix was utilized to rank the sites according to the established criteria set by the DCPS. The criteria for comparison were: site size, location relative to the population center of the county, development costs, displacements of residents or businesses from their dwellings, and deed restrictions. The results of the analysis indicate the Rose Ridge site (S-4 in the analysis) to be best suited for locating school facilities required to support present and anticipated enrollment.

## ***2.2 No Action Alternative (NAA)***

Under the NAA, no Federal funding from the Corps and/or USDA would be provided to Dickenson County to supplement alternatively acquired funding for construction of school facilities. Absent federal funding, it is unlikely that sufficient funding would be obtained to relocate existing school facilities or construct new school facilities in the near term. The existing Dickenson County schools would likely remain in place and operating, in a capacity determined by the DCPS. Ervinton High School and Clinchco Elementary have been recently closed indefinitely due to budget constraints. It is anticipated both would remain closed into the foreseeable future.

The operation of existing schools would be subject to their physical integrity over time and availability of funding to adequately support staffing, enrollment, transportation, and operations and maintenance. The operation of existing eligible schools in the floodplain under the NAA would continue to pose significant risks to the health and human safety of students, staff, and area residents.

## **SECTION 3 – Affected Environment/Environmental Consequences**

The proposed Middle/High School Complex site is located in the Rose Ridge community in north central Dickenson County near the unincorporated community of Fremont (Exhibit 2 of Appendix F). Elevations on the site range between 2000 and 2200 feet above mean sea level. The topography of the project area, approximately 107 acres in size, is moderately sloped with flat portions existing in sections and is primarily composed of forest with smaller amounts of pastureland. Several headwater streams, varying in classification exist within the project area along with a few acres of wetlands, also varying in classification. The hydrology on-site drains in a northeasterly direction into Big Branch, a direct tributary of the Cranes Nest River. The Cranes Nest River is just over a mile to the north of the site. The proposed project area is defined as the area immediately adjacent to the construction site and the areas adjacent to the proposed road improvements, access roads, and sewer line corridor. Historically, the land has been used primarily for farming practices, including hay crops and cattle grazing. A large portion of the forested area onsite was harvested for timber in 2011 by one of the former landowners. The site is accessible from Route 637 and public water service is available at the site from the Dickenson County Public Service Authority.

The proposed project area also includes the properties of Clinchco Elementary, Ervinton High, Sandlick Elementary, and the ancillary buildings at Haysi High School. Exhibit 4 in

Appendix F highlights the locations of these sites and the proposed consolidation site within the county. The extent at these sites is limited to the area immediately adjacent to the structures to be demolished. This EA seeks to collectively evaluate resources throughout the noncontiguous proposed project area.

### ***3.1 Aquatic Resources and Water Quality***

The proposed construction site and all existing school sites are within the Russell Fork River drainage. The Russell Fork lies within the Upper Levisa watershed, Hydrologic Unit Code (HUC) 8, 05070202. The existing schools are scattered throughout the Russell Fork watershed. The proposed construction site, sewer line alignment, and road modifications at Rose Ridge are within the Cranes Nest subwatershed. The Cranes Nest River is listed as impaired for “Recreation Use” due to bacteria levels. Lack or inadequacy of sewage treatment facilities and acid mine drainage have contributed to degraded water quality. Potable water is provided throughout the county by a regional water treatment plant at the John W. Flannagan Reservoir, which is formed by the damming of the Pound and Cranes Nest Rivers. The USACE, Norfolk District, Virginia Department of Environmental Quality (DEQ), and the Virginia Marine Resources Commission (VMRC) were contacted for comment on the proposed project. Responses are located in Appendix H.

A wetland and waters of the U.S. (WOUS) investigation resulting in a jurisdictional determination (JD) was conducted by D.R. Allen & Associates, P.C. for the DCPS. The proposed project is within the Regulatory Jurisdictional Boundary of the USACE Norfolk District; therefore any permits required for impacts to WOUS will be reviewed and processed through its Regulatory Branch. The conclusions of the WOUS investigation and JD were confirmed by USACE, Norfolk District who performed subsequent field investigations to validate these results. A copy of the JD and the approval letter from USACE Norfolk District is located in Appendix I. Several wetlands, both jurisdictional and isolated, are present on the proposed site. There are several streams located within the boundaries of the proposed construction site and streams are located directly adjacent to each of existing school campuses. Details and maps of the aquatic features at the proposed middle/high school site can be found in the jurisdictional delineation performed by D.R. Allen & Associates, P.C. in Appendix I. There are no WOUS present within the areas at eligible schools to be demolished.

Under the PAA, there are unavoidable direct impacts to jurisdictional wetlands, isolated wetlands, and streams at the proposed construction site and sewer line alignment. Anticipated impacts will require the DCPS, the applicant, to obtain a Clean Water Act (CWA) Section 404 Individual Permit (IP) from the USACE Norfolk District. The permit will authorize placement of fill material from construction activities into WOUS. Impacts outside of WOUS fall under the jurisdiction of the DEQ and the VMRC. Actions associated with the PAA will require the applicant to obtain a Virginia Water Protection Permit (VWPP) from the DEQ to meet CWA Section 401 requirements. Additionally, the PAA will require a VMRC General Permit.

On behalf of the DCPS, D.R. Allen & Associates, P.C. has submitted a Joint Permit Application (JPA) to the USACE Norfolk District. The JPA process collectively involves the

USACE, the DEQ, and the VMRC to ensure all appropriate permits are acquired. The three-volume JPA is located in Appendix J.

The JPA indicates the PAA will permanently impact 1,530 linear feet (l/ft) of stream, 2.0 acres of jurisdictional wetlands, and 1.02 acres of isolated wetlands. The breakdown of the 1,530 l/ft of stream is as follows: 410 l/ft perennial, 870 l/ft intermittent, and 250 l/ft ephemeral. Concerning the 2.0 acres of jurisdictional wetlands, 1.0 acre is palustrine forested and 1.0 acre is palustrine emergent. Approximately 0.21 acres of emergent wetlands have been impacted from construction of an access road onto the proposed site. Of the 1.02 total acres of isolated wetlands, 0.8 acre is palustrine forested and 0.22 acre is palustrine emergent. Appendix E in Volume 2 of the JPA contains a full breakdown of the streams and wetlands. Temporary impacts to stream and wetlands are also anticipated under the PAA. The design of the PAA includes 11 temporary stream crossings and one temporary wetland crossing along the sewer line corridor. The crossings will temporarily impact 495 l/ft of stream and 126 square feet (0.003 acre) of emergent wetlands. These areas of temporary impact will be restored upon installation of the sewer piping, allowing them to function in a capacity equivalent to the present conditions. The permanent impacts to streams and wetlands are primarily the result of earthwork/grading of approximately 57 acres required onsite and the construction of three sediment/stormwater basins on the perimeter of the site.

Avoidance and minimization measures have been incorporated into the design of the PAA to the maximum practical extent. Initial designs for the proposed middle/high school complex centered the school buildings and parking areas near the center of the property. It was later determined that coal had previously been mined around 500 feet below ground surface in the central and northern portions of the site. Locating the structures in such locations would pose risks to the structures' integrity, with subsidence as a possibility from the previous mining activities. As a result, athletic facilities and overflow parking have been slated for the north-central portion of the site instead. Additionally, legal agreements have been executed with the present subsurface owner to eliminate any potential of future mining underneath the proposed structures, regardless of ownership. This design constraint limits the possible avoidance measures and requires the primary school buildings to be located at the south-central portion of the site where some stream and wetland resources are located. A retaining wall is proposed to accommodate road widening for turn lanes in lieu of cut and fill measures that would result in impacts to WOUS.

Under the PAA, the aquatic resources within the campus footprint will be converted to an upland environment. Impacts from filling will result in the loss of biota currently utilizing these resources. The impacts are situated in unnamed headwater features of Big Branch, a perennial stream and direct tributary to the Cranes Nest River. Riparian areas adjacent to these wetland and stream resources will also be eliminated. The sediment/stormwater basins will be operated as dry structures, essentially passing base flows and storing flood flows and gradually releasing them. There is potential for substrate and water temperature change from the installation of the detention structures.

Impacts anticipated to wetlands and streams under the PAA require mitigation measures to offset. At the present there are no mitigation banks or in lieu fee programs in place within the

Big Sandy Watershed. As a result, permittee-responsible mitigation is the only option. The Unified Stream Methodology (USM) procedure indicates that impacts from the PAA will generate a stream compensation requirement of 1,673 USM credits. In accordance with corresponding wetland ratio mitigation requirements, the impacts will also require compensation for 3.0 acres of jurisdictional wetlands and 1.82 acres of isolated wetlands. For temporary impacts along the sewer line corridor, the applicant proposes to restore the impact sites upon completion of the required work to pre-construction contour and condition.

A conceptual mitigation plan is in place to address permanent impacts. All mitigation is within the same watershed being impacted, the Upper Levisa watershed, HUC 8, 05070202. The applicant will use a combination of stream preservation, enhancement, and restoration and wetland preservation and enhancement to accomplish mitigation requirements. The proposed compensation methods include stream restoration using natural stream design, tree planting, invasive species eradication, and preservation. All mitigation sites will be protected through the use of a legal protective covenant and subject to monitoring for a period of at least ten years.

Onsite mitigation options are limited. Two small wetlands will be enhanced onsite through native species plantings and the remainder of mitigation is offsite. In general, the applicant will perform 850 l/ft of perennial stream restoration and 770 l/ft of riparian buffer enhancement on Spring Fork at the present Ervinton High School site. Additionally, 800 l/ft of intermittent stream enhancement will be completed in an unnamed tributary to Long Fork. The 2,420 l/ft of stream mitigation work will provide 1,756 compensation credits as determined by application of the USM. The applicant will compensate for 2.00 acres of permanent wetland impacts through the enhancement of 3.11 acres of existing wetlands on Long Branch and in Lockhart Flats, providing for a 2:1 ratio for forested wetlands and a 1:1 ratio for emergent wetland impacts. To compensate for impacts to 1.82 acres of isolated wetland impacts the applicant proposes to provide funding for the construction of the Nora Sewer Project in order to improve water quality within the McClure River watershed. This mitigation component is considered out-of-kind but is proposed to improve water quality. Details of the mitigation plan can be found in Volume 3 of the JPA. A public notice, contained in Appendix J, was published by the USACE Norfolk District on July 12, 2012 concerning the proposed project and associated CWA permits. On behalf of the DCPS, D.R. Allen & Associates, P.C. has responded to comments received from the USACE, Norfolk District and various agencies during the public review period of the JPA. The DCPS published a public notice regarding the Draft VWPP on October 31, 2012. A copy of the Draft VWPP can be found in Appendix K. Both the Section 404 Individual Permit and the Section 401 VWPP are pending and are anticipated to be issued after the DEQ public review period ends. The VMRC General Permit has been issued to the DCPS and its validity has been conditioned with the requirement of obtaining the required USACE and DEQ CWA permits. A copy of correspondence regarding the VMRC General Permit is contained in Appendix L.

The PAA, particularly construction at the proposed school site, is anticipated to have minor impacts on water quality within the receiving Big Branch drainage area. Turbidity and suspended solid levels are the two parameters most likely to increase during construction. To minimize impacts to water quality, the development of an erosion and sediment control plan in accordance with the Virginia Erosion and Sediment Control Regulations will be accomplished. This plan will be developed to ensure adequate protection of the environment, the project site,

and to downstream properties which could be affected by sedimentation and changes in runoff during and after the construction of the middle/high school complex. An integral part of the erosion and sediment control plan will be the construction of three temporary sediment basins around the downstream perimeter of the site. These basins will be constructed prior to any other land disturbing activity. The majority of all runoff from the site will be directed through one of these basins prior to discharge from the site. Additional erosion and sediment control measures such as construction entrances, stormwater conveyance channels, ditch linings, culvert inlet protection, outlet protection, topsoil placement, mulching, and temporary and permanent seeding will be utilized in accordance with the Virginia Erosion and Sediment Control Handbook. The Erosion and Sediment Control Plan will be submitted by the DCPS to the Dickenson County Building Official for review and approval.

Site development and post site development conditions of the PAA will require implementation of stormwater management measures. All stormwater management for the project will be provided in accordance with the Virginia Stormwater Management Handbook by the Virginia Department of Conservation and Recreation (DCR). The stormwater management system for the Dickenson County Schools project will be designed to constrain the post-development 10-year (10% annual recurrence event), 24-hour storm event peak runoff rates to the pre-development values. These post-development runoff characteristics will be achieved through the use of converting the temporary sediment basins into permanent stormwater detention ponds, installation of stormwater conveyance systems, and the efficient use of paving materials and natural vegetation. The stormwater management system has two major components, the detention ponds and the stormwater conveyance systems. The stormwater conveyance systems will consist of a series of drainage ditches, drop inlets, and storm drain piping. A Virginia Stormwater Management Program (VSMP) permit through the DCR will be required for the PAA. The DCPS or a contractor on its behalf will acquire the VSMP permit from DCR prior to any construction activities.

The proposed school complex will be served by a wastewater treatment plant with a 35,000 gallon per day capacity. The plant will be situated on the far northwest corner of the campus away from the primary facilities and central campus. The treatment plant will discharge clear, treated effluent through a pipeline in the adjacent Big Branch drainage. The pipeline will terminate at a percolation bed directly adjacent to the Cranes Nest River where the effluent will be filtered and gradually seep into the river. Riprap stone will be placed above the ordinary high water mark at the riverward toe of the percolation bed to maintain integrity of the structure and prevent erosion from the seeping. The treated effluent from the school facilities is not anticipated to negatively impact water quality of the Cranes Nest River. The effluent and wastewater treatment plant operations will be operated and inspected in accordance with the Virginia Pollutant Discharge Elimination System (VPDES) the DCPS has obtained from DEQ. A copy of the issued permit can be found in Appendix M.

It is anticipated that no negative impact to streams, wetlands, or water quality would occur under the NAA.

### 3.2 Terrestrial Resources

A site survey was conducted by D.R. Allen and Associates which documents land use, existing vegetation and ecological community groups and the analysis of potential effects of the proposed project to the direct removal of forested vegetation. The USACE jurisdictional delineation boundary, which consists of approximately 114 acres was utilized to determine the limits of this analysis. The full evaluation can be found in Appendix N. A brief summary of the findings are provided below.

Maps, site surveys and aerial photography interpretation identified approximately five (5) land uses to currently exist within the project area. Current land uses were mapped and acreages were approximated as follows:

<u>Land Use</u>	<u>Acreage</u>
Agricultural Grazing Land	7.68
Residential	0.89
Recently Logged Forest	37.33
Second Growth Forest	56.44
Gas Line/Wells/Access Roads	12.02

Approximately 80 percent of the project area is forested. However, approximately 37 acres of the forested area were selectively harvested in the summer of 2011 by the former landowner degrading ecological quality of the forest. During site surveys within the forested portion of the project boundary, terrestrial vegetation of the Low Elevation Dry and Dry-Mesic Forests and Woodlands Ecological Class were observed on south facing aspects. These habitats include ecological community groups with distributions centered below 3500 ft. elevation and representing xerophytic to submesophytic forest and woodland vegetation mesophytic to submesophytic forest vegetation (Fleming, et al., 2012). The dominant community group observed on south facing slopes consisted of Montane Mixed Oak forests. North facing aspects are generally of the Low-Elevation Mesic Forest Ecological Class. These ecological community groups are centered below 3,500 ft. and represent mesophytic to submesophytic forest vegetation. The dominant community group observed on the north facing slope is Rich cove and Slope Forests. A description of the two dominant community groups is provided in Appendix N.

Clearing of forested cover has been limited to maximum extent possible under proposed design. However, activities associated with implementation of the PAA will include the unavoidable clearing of approximately 68 acres, of which 60 acres or 88% is forested. Of the forested vegetation that will be permanently removed, approximately 33 acres (55%) have been previously impacted by logging, with the remaining 27 acres (45%) consisting of mature second growth forest.

The proposed middle/high school site provides suitable habitat for various species of birds, terrestrial mammals, amphibians, reptiles, and aquatic and terrestrial invertebrates. While PAA activities may result in potential habitat reduction for some of these wildlife species, suitable terrestrial habitat adjacent to portions of the proposed site and the surrounding areas is present.

Vast tracts of forested land are situated to the north of the proposed project site. Forested land is abundant within Dickenson County, accounting for over 80% of land cover/type within the county. Given the relative low quality of the terrestrial resources impacted by the project as well as the abundant forested areas adjacent to the project area, the impact to terrestrial resources was considered insignificant. There is potential for the existing school sites slated for demolition under the PAA to undergo natural succession after demolition activities. In the event that future landowners do not reserve the site(s) for some type of developed floodplain compatible use, the sites will likely develop into suitable habitat for terrestrial fauna.

No impacts to terrestrial habitat and communities would occur as a result of the No Action Alternative.

### ***3.3 Threatened and Endangered Species***

The purpose of the Threatened and Endangered Species Act of 1973 is to protect species and the ecosystems on which they depend. Initial investigations regarding Threatened and Endangered (T&E) Species were performed by The Lane Group, Inc. The Lane Group, Inc. utilized the U.S. Fish and Wildlife Service (USFWS) Information, Planning and Consultation System (IPaC) to assess the potential for presence of T&E Species and/or their habitats within the proposed project area. Results from the submission indicated the potential for the Indiana bat (*Myotis sodalis*) to occur at the proposed middle/high school site. The existing school sites slated for demolition are highly developed and do not contain suitable habitat for any T&E Species. In addition, the DCR and the Virginia Department of Game and Inland Fisheries (DGIF) were contacted by letter for their comment on the proposed project by The Lane Group, Inc. Copies of correspondence with these agencies are included in Appendix H.

In accordance with Section 7 of the Threatened and Endangered Species Act of 1973 the USACE, Huntington District has engaged in consultation with the USFWS Virginia Field Office in Gloucester, VA regarding the proposed project. Consultation has also included USACE, Norfolk District for matters related to Clean Water Act (CWA) permits required by the proposed project and to avoid unnecessary duplication of efforts. The USFWS indicated that suitable habitat exists for the Federally Endangered Indiana bat (*Myotis sodalis*) and the Federally Threatened Virginia spiraea (*Spiraea virginiana*) to occur within the boundaries of the proposed middle/high school site. To date there has been no formal documentation indicating the presence of either species within the limits of the proposed project. Subsequently, D.R. Allen & Associates, P.C. performed a habitat assessment at the proposed middle/high school site for the area where clearing of standing vegetation and timber is anticipated. The habitat evaluation is located in Appendix N. The habitat evaluation report was shared with the USFWS and confirmed that potential summer roosting habitat for the Indiana Bat was present on the proposed site.

In order to accurately assess the proposed project area for possible presence or absence of the two species the USFWS recommended a summer mist net survey for Indiana bats be conducted by a licensed surveyor between May 15<sup>th</sup> and August 15<sup>th</sup> on the proposed middle/high school site. It was also required that the proposed project area be investigated for the presence of caves

or abandoned mine portals suitable for habitat. Additionally, it was recommended that a survey for Virginia spiraea be completed in the vicinity of the wastewater percolation bed, in a riparian zone adjacent to the Cranes Nest River. Given the habitat requirements of Virginia spiraea, USFWS determined this portion of the proposed project area to be the only area with potential to support Virginia spiraea.

An overall reconnaissance of the proposed middle/high school site was conducted to determine the presence of caves or mine portals. No caves or abandoned mine portals were observed or are known to exist within the proposed project area. On June 2-5, 2012 a mist net survey was conducted by Environmental Solutions and Innovations, Inc., a licensed Indiana bat surveyor. Two suitable locations on the proposed site were selected and surveyed. Twenty bats representing two species were captured during the survey, but no Indiana bats were captured. Additionally, there are no documented hibernacula within a 10-mile radius of the proposed project area. Given these findings, it is anticipated that there will be no direct, indirect, or cumulative effects to the Indiana bat under the PAA. A copy of the survey study plan, survey summary letter, and survey completed by ESI can be found in Appendix O.

The aforementioned portion of the project area near the Cranes Nest River area was surveyed for Virginia spiraea by Mr. Douglas Ogle, an approved surveyor that has conducted extensive field work in the project vicinity. A letter detailing his review is enclosed in Appendix P. According to this review, the area has been heavily disturbed and “no populations of *Spiraea virginiana* are present within the proposed construction areas.” Based on this determination, Virginia spiraea is not located within proposed project area and will not be impacted.

According to DCR files, the proposed middle/high school site is within the Cranes Nest River-Rush Creek Stream Conservation Unit (SCU). This SCU has been given a biodiversity ranking of B4, which represents a site of moderate significance. The natural heritage resource associated with this site is the Big Sandy crayfish (*Cambarus veteranus*). This rare crayfish is listed as endangered by the DGIF. It is also listed by the USFWS as a species of concern. The Big Sandy crayfish is found in streams of moderate width and permanent, fast flowing pools. Habitat that includes large, flat rocks situated on unconsolidated areas of gravel and sand is ideal for the crayfish. The proposed project will not impact any streams that provide habitat for this species, and as a result will not adversely affect the Big Sandy crayfish.

In summary, the PAA is not likely to adversely affect the Indiana bat or Virginia spiraea, or critical habitat of either species. The USFWS provided concurrence with this determination in an electronic transmittal included in Appendix H. The concurrence from USFWS satisfies the Section 7 requirements for the proposed project. The USFWS determination for the Indiana bat is valid for three years and two years for Virginia spiraea. The demolition of the existing schools would have no affect on T&E Species or their habitats. Under the PAA the potential exists for suitable habitat for various species, not necessarily T&E Species, to develop once the schools are demolished.

The NAA would have no impact on T&E Species or the critical habitats of such species.

### ***3.4 Air Quality***

The United States Environmental Protection Agency's (USEPA) Primary National Ambient Air Quality Standards (NAAQS) set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and prevention of damage to animals, crops, vegetation, and buildings. These standards exist for the following six principal pollutants, called criteria pollutants (as listed under Section 108 of the CAA):

- Carbon monoxide (CO)
- Lead (Pb)
- Nitrogen dioxide (NO<sub>2</sub>)
- Ozone (O<sub>3</sub>)
- Particulate matter, classified by size as follows
  - An aerodynamic size less than or equal to 10 micrometers (PM<sub>10</sub>)
  - An aerodynamic size less than or equal to 2.5 micrometers (PM<sub>2.5</sub>)
- Sulfur dioxide (SO<sub>2</sub>)

According to the most recent data on USEPA's Green Book Database, Dickenson County is in attainment with NAAQS for all six (6) criteria pollutants. PAA construction measures will require the use of fossil-fuel burning equipment, including equipment such as excavators, dump trucks, pan scrapers, and bulldozers. Preparation of the site for construction, or earthwork, will result in the majority of air emissions. Site work is estimated to take approximately three to four months to complete. Temporary impacts may include fugitive dust, petroleum product odors, and exhaust fumes. Construction activities are to be performed in accordance with the State Implementation Plan (SIP) and will require compliance with all applicable local, state, and federal regulations.

Upon completion of the project, increased traffic in the project area will generate a slight increase in vehicle emissions. However, emissions in the areas near the schools to be demolished will likely decrease. The wastewater treatment plant will be located away from the main school facilities and positioned to allow prevailing wind currents to carry associated odors away from the school facilities and adjacent residential structures. Previous concerns expressed by members of the public at a scoping meeting conducted by the Lane Group in April 2011 indicated the presence sulfur-like odors from nearby mining operations. The referenced odors have not been detected on the site during numerous field investigations conducted by USACE staff and DCPS contractors.

During construction, measures will be taken to ensure compliance with federal and state regulations regarding fugitive dust control and open burning. Fugitive dust must be kept at a minimum. Measures, such as application of water to suppress dust and the washing down of construction vehicles and paved roadways immediately adjacent to the construction site will be implemented as necessary. All land clearing debris will be disposed of in an approved manner.

The DEQ was contacted for comment on the proposed project. A copy of DEQ's response is enclosed in Appendix H. According to DEQ, the project should not adversely affect air quality.

The emissions produced as part of construction activities are not unusual events, and will not have an adverse impact on the long-term air quality of the area. Implementation of the PAA is anticipated to have minor temporary impacts to air quality in the immediate project area during construction. In addition, the PAA would result in slight increases of vehicle emissions in and around the immediate project area throughout the operating duration of the school complex, compared to present vehicle emission levels. Conversely, the PAA would reduce vehicle emissions in areas surrounding the schools to be demolished upon completion and into the foreseeable future.

The NAA would not involve any construction related air emissions. As a result, no significant or permanent changes to current ambient air conditions would occur under the NAA.

### ***3.6 Cultural Resources***

The Virginia Department of Historic Resources (DHR) was contacted to initiate the consultation process under Section 106 of the National Historic Preservation Act (NHPA). According to an archives search, there are recorded historic resources in the immediate vicinity of the six noncontiguous project areas. To aide in the identification of historic properties that may be affected by this undertaking, DHR recommended a reconnaissance-level architectural survey for all structures proposed for demolition and all standing structures in the immediate vicinity of the proposed new school complex. DHR also recommended an archaeological survey of the proposed site for the new school complex, including land for all associated utilities and infrastructure and all previously undisturbed areas to be impacted by demolition of the existing schools.

A Phase I Intensive Cultural Resources Survey for the construction of the proposed middle/high school campus with an onsite wastewater treatment plant, outfall line, and leachate field at Rose Ridge was performed by Browning & Associates, Ltd. Also evaluated were the horizontal alignment and sighting improvements to Route 637 from the proposed school to Route 83 for school bus access. Shovel testing encountered no archaeological sites within the school campus, wastewater treatment plant, or leachate field areas. Cultural materials were identified within the proposed school site, but the materials failed to cross the three artifact threshold for an archaeological site designation per DHR Guidelines. Visual examination of the outfall line identified two archaeological sites located on USACE administered property adjacent to the floodplain of Big Branch. Neither site will be impacted by construction, and are recommended not eligible due to lack of effect, their late construction dates, and the low return on investment for providing significant information. The leachate field located at the outfall line terminus is in an active floodplain and was found to be devoid of archaeological potential. Horizontal alignment improvements to Route 637 were visually examined and found to be on terrain too steep to contain cultural resources.

In addition, the APE was surveyed for both direct and indirect effects on historic properties. For the Rose Ridge site, the direct effects were considered for structures that were within the property outline where the construction of the school complex, wastewater treatment plant, outfall line, leachate field, and road improvements are proposed. Survey of standing structures

encountered no structures recommended eligible for the National Register of Historic Places (NRHP) within the project limits. The indirect effect survey consisted of structures set along Route 637 but visible from the Rose Ridge site. Several standing structures were surveyed within the project viewshed. These were 4<sup>th</sup> quarter 19<sup>th</sup> to middle 20<sup>th</sup> century single family domestic buildings with associated outbuildings. Some were related to agricultural pursuits while the majority of structures were related to ribbon development along Route 637. Three cemeteries were also identified and recorded. None of the structures in the viewshed were recommended eligible for the NRHP.

The survey also included evaluation of the schools that are slated to be demolished as part of the proposed undertaking. None of the structures identified and evaluated are eligible for individual listing on the National Register of Historic Places. Each of the schools are also located in relatively isolated areas; therefore, indirect effects to surrounding properties associated with the school demolition will not be incurred.

Based upon the survey findings, the USACE and DHR concur that no historic properties will be affected by the proposed undertaking of the PAA. Correspondence associated with this finding is included in Appendix H.

The development of a plan for the treatment of unanticipated archaeological discoveries in accordance with 36 CFR § 800.13 will be incorporated into the construction documents for treating unexpected historical or archaeological discoveries during construction. The plan will include names, telephone, and fax numbers of the appropriate county and agency contacts and will also include the following stipulations:

- a. In the event that a previously unidentified archaeological resource is discovered during ground disturbing activities, all construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can be reasonably expected to occur. DHR or an archaeologist approved by their office, will immediately inspect the work site and determine the area and the nature of the affected archaeological property. Construction work may then continue in the project area outside of the site area. Within 10 working days of the original notification of discovery, DHR will determine the National Register eligibility of the resource.
- b. If the resource is determined to meet the National Register Criteria (36 CFR Part 60.6), compliance with 36 CFR § 800.11 will be ensured. Work in the affected area shall not proceed until either (a) the development and implementation of appropriate data recovery or other recommended mitigation procedures is established, or (b) the determination is made that the located remains are not eligible for inclusion on the National Register.

The NAA would have no adverse impacts on cultural resources.

### ***3.7 Socioeconomics and Environmental Justice***

According to the U.S. Census Bureau, the 2010 population of Dickenson County, Virginia was 15,903 persons. Minority populations are extremely low in Dickenson County compared to the predominantly Caucasian population of 98.6%. Approximately 19% of residents lived below the poverty level from 2006-2010, well above the state average of 10%. The median household income in 2010 was \$29,080, with a per capita income of \$16,278. The June 2012 unemployment rate was 8.5%, above the state average of 5.9%. Fewer than 9% of county residents have attained a bachelor's degree or higher and over 30% of residents age 25 and older have not completed high school.

Executive Order 12898 directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The new school complex will be beneficial to all of the students of the county on equal terms, regardless of race, ethnicity, or income. The new high school, middle school, and career technical school will allow the school system to offer additional curriculum, improving educational opportunities for all students. Both students and staff will benefit from the new improved facilities and advanced technology resources in a safe learning environment. As such there are no environmental justice concerns associated with implementation of the project.

One residential structure that is currently vacant has voluntarily accepted to be acquired and demolished. The secondary access road to the school campus will be located in the vicinity of the demolished structure. One parcel of property was acquired through condemnation procedures by the DCPS. However, no households will be displaced or demolished as a result of the PAA. Construction of the school complex at the proposed location is not projected to negatively impact adjacent property values. The project is not anticipated to adversely affect the human health or environmental conditions of the area being served. A public scoping meeting for the preparation of this Environmental Assessment (EA) was conducted in April of 2011. Public notices and public meetings were advertised, in order to promote community involvement.

It is anticipated that the NAA would result in the continued operation of school structures and associated facilities at Sandlick and Haysi. Structures at both locations are located in the floodplain and have an elevated risk of enduring flood damages, in turn posing threat to health and human safety. Given the increased flood risk, there would also be potential for adverse social and economic impacts. Recent budget constraints coupled with current operational costs have recently forced the closure of Ervinton High School for 2012-2013 school year. The Dickenson County School Board made the decision to close Clinchco Elementary in July of 2011 for the same reasons and it remains. Increased classroom size and longer bus routes are among several concerns voiced by citizens following the closure of the two schools. Under the NAA, it is anticipated that the two schools will remain closed into the foreseeable future.

### 3.8 Noise

Noise is defined as an undesirable or unwanted sound. At the present, no universal Federal standard for allowable noise levels associated with construction related noise as it relates to the surrounding environment presently exists. For the purposes of this assessment the values listed in the USACE Safety and Health Requirements Manual (September 2008) will be used to evaluate the PAA. The manual provides criteria for permissible noise exposure levels, as well as thresholds for the consideration of hearing protection and/or the implementation of sound reduction controls. Table 1 below presents the minimum duration and noise level thresholds outlined in the USACE Safety and Health Requirements Manual.

**Table 1: Permissible Non-Department of Defense Noise Exposures**

Duration/day (hours)	Noise level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105

Source: USACE Safety and Health Requirements Manual, 2008

Field visits by USACE Huntington District personnel determined the proposed construction site to be situated in a semi-rural residential setting where ambient noise levels are relatively low with the primary noise generation resulting from local vehicle traffic and the operation of farm and lawn equipment. Existing facilities at Clinchco Elementary and Sandlick Elementary are located in similar settings with the same noise sources accounting for most of the ambient noise as well as the increased bus traffic during operation of the schools. However, Clinchco Elementary is closed indefinitely at the present; therefore, no receptors are subject to noise exposure at its location. The ancillary facilities at Haysi High are located directly adjacent to a state highway and only a quarter of a mile from the Town of Haysi. Vehicular, truck, and bus traffic are also the primary noise sources for the Haysi campus. There are no residential structures in the near vicinity to Haysi High and a commercial structure sits across the Russell Fork from the campus over 300 feet away. Ervinton High is located in a rural area of the county and is situated directly adjacent to SR 652. The primary noise source at Ervinton, when operational, was also traffic, but of less frequency and magnitude when compared to any of the other sites. The nearest residential structure to the Ervinton campus is over 600 feet away.

Under the PAA it is anticipated that the ambient noise levels at and around the proposed construction site will increase throughout the construction phase, anticipated to take 24-30 months. In particular, the site work phase of construction is anticipated to result in the greatest increase. Blasting to achieve rock removal and allow for necessary site grading would entail the greatest potential for adverse effects. The majority of the blasting will most likely be located in

the vicinity of the proposed tennis courts. Additionally, blasting may be required in the vicinity of the football stadium. The selected construction contractor will be required to obtain all appropriate permits, and will store and use explosives in accordance with all applicable Federal and state regulations, and conditions of the permit(s).

Noise data figures for construction equipment and related processes published by the Federal Highways Administration (FHWA) will be used to estimate noise levels for the construction phase of the PAA. Additionally, it is estimated that the site development portion of the construction phase, the portion anticipated to produce the most noise, will take approximately six to nine months. Nine months will be assumed for the purposes of this document. Also, site work will occur in daylight conditions, and a typical eight-hour work day will be assumed. It is assumed that the minimum equipment necessary for accomplishing the site work, other than the blasting required for rock excavation, includes diesel backhoes, diesel front end loaders, diesel excavators, dump trucks, bulldozers, and a concrete mix truck. The noise generated from this type of equipment ranges from 76 to 82 dBA measured from a distance of 50 feet. It is anticipated that the equipment will be spread about the construction site to accomplish grading work and running in unison at irregular intervals thereby limiting additive or compounding noise situations. One of the most likely compounded noise scenarios at 50 feet would be an excavator and front end loader working directly beside a running dump truck. At a distance of 50 feet this combination would be expected to produce 83 dBA.

According to the FHWA data, the average dBA for blasting is 96 dBA at 50 feet. The blasting required for rock removal and excavation on the proposed site is anticipated to take no longer than two months. It is anticipated that no more than two blasts would be completed per day during the phase limiting the timeframe residents are subjected to noise from the blasting. Additionally, it is anticipated that other equipment will not be operational during the blasts as a safety precaution for all workers.

The noise projections do not account for screening objects, such as trees, topography, prevailing wind currents, outbuildings, or other objects that muffle and reduce the noise emitted. Additionally, these projections do not account for individuals being inside structures that would reduce the level of noise exposure during construction. In this evaluation distance is the only factor considered to as it equally applicable to all receptors. For practical purposes, the residential structures on the north side of SR 637 in the vicinity of the proposed construction site would be the receptors of noise during the construction period. The natural attenuation rate for dBA level noises is 6 dBA with every doubling of distance after 50 feet. For example, a noise source generating 76 dBA at 50 feet would emit 70 dBA to a receptor at 100 feet, and 64 dBA to a receptor at 200 feet.

A map included in Exhibit 5 of Appendix F indicates the proximity of residential structures to the site work boundaries according to the design drawings for the proposed middle/high school. Distances of the structures from the limits of anticipated site preparation work varies from approximately 110-900 feet. Under the projected compounded noise scenario of 83 dBA above receptor exposure would range from 64-77 dBA. Of the receptors identified in the immediate vicinity of the site, only one is less than 200 feet away and could be subject to 77 dBA of noise under the projected scenario. All other receptors are located beyond 200 feet from

the site development boundaries and could be subject to a maximum of 71 dBA of noise under the projected scenario.

Another map included in Exhibit 6 of Appendix F identifies the distance of receptors from portion of the site where blasting is slated according to design drawings. Distances of the structures from the area where blasting is anticipated work varies from approximately 800-1,900 feet. Under the estimated blasting noise level of 96 dBA receptor exposure would range from 66-72 dBA.

The noise levels associated with site development activities and blasting are within allowable levels identified in the USACE Safety and Health Requirements Manual, 2003. Further, they are similar to typical neighborhood noise generated by gas powered lawnmowers in the local area, which could range from 90-95 dBA at three feet and 70-75 dBA at 100 feet. However, to limit impacts to receptors from noise, the site work will be confined to normal daylight working hours when most residents within the surrounding vicinity would be awake or at work. It is required that the contractor provide notice to surrounding residents of impending blasting activities prior to commencing them. Additionally, it is recommended the contractor consider mitigation techniques, such as implementation of a warning siren several minutes prior to the execution of a blast.

Also, the demolition phase at each existing school will also generate noise at levels slightly higher than present levels at the existing school sites. However, noise generated from the demolition of the existing schools is not anticipated to have adverse impacts for several reasons. The demolition process for each school is anticipated to be short in duration and will be performed with no students or staff present at the respective campuses. Additionally, the anticipated noise levels from equipment likely to be used, which includes road legal dump trucks, a small bulldozer, an excavator, and loader, would not exceed tolerable levels. Impacts from the dump trucks entering and exiting the demolitions sites are anticipated to be negligible, as moderate traffic, including dump trucks and semi trucks, is not uncommon in the vicinity of each school.

The PAA will not result in long-term adverse noise impacts or any health-endangering levels during implementation. Once the construction phase is complete, noise levels will be slightly higher compared to present conditions in the vicinity of the middle/high school campus. The increase will likely be confined to the period the school is in operation, during the school calendar year. The inevitable increase in vehicle and bus traffic during this timeframe will be the primary source of additional noise. After demolition activities are completed at the existing schools, a slight decrease in noise levels are anticipated within the vicinity of each due to decreased traffic.

There would be no noise impacts as a result of the NAA and levels around the existing schools would likely remain similar to present levels.

### ***3.10 Hazardous, Toxic, and Radioactive Waste (HTRW)***

Several reconnaissance phase assessments of potential hazardous, toxic, and radioactive waste (HTRW) were performed in accordance with Engineering Regulation 1165-2-132 (USACE, 1992) by The Lane Group, Inc. and D.R. Allen & Associates, P.C. All assessments were also performed in accordance with American Society for Testing and Materials (ASTM) Standard 1527-05. The Lane Group, Inc. performed a Phase I Environmental Site Assessment (ESA) for the campus of the proposed school complex and the existing school campuses scheduled to be demolished. D.R. Allen & Associates, P.C. completed a Phase I ESA for each of the identified off-site stream and wetland mitigation sites. The assessments included a search of Federal and state environmental databases, review of previous reports, investigation of historical records, interviews with persons familiar with each site, and a field investigation to identify any evidence of environmental contamination on or near the sites. In addition, activities on or near the sites, which could result in environmental contamination, were reviewed. Environmental regulatory information concerning the subject properties and nearby properties were also reviewed. Findings and recommendations from each of the reports is summarized below. Copies of the Phase I ESAs can be obtained by contacting the USACE Huntington District. Correspondence from USACE Huntington District's Environmental Remediation Section regarding the Phase I ESAs, including the memoranda accepting the reports as final, and citing no further investigations necessary, can be found in Appendix Q.

The Phase I ESA for the new school complex campus notates the presence of older “junk cars” and related vehicle components in several areas onsite. Drum containers were also documented near a barn and shed, but contained no liquid nor displayed signs of past or present leaking. No hazardous materials were documented in the investigation of the proposed school site. Since the completion of the Phase I ESA the junk cars and vast majority of related components and general solid waste have been removed by the previous landowner.

The Phase I ESAs completed for the existing schools slated for demolition documented hazardous materials at several of the facilities. The ancillary facilities at Haysi High tested positive for lead-based paint (LBP). Asbestos-containing materials (ACM) were positively identified at all four locations. Three above ground storage tanks (ASTs) are located near the ancillary structures at Haysi High. The Phase I ESA also documented the presence of an old abandoned landfill upgradient of Clinchco Elementary and the potential for a septic tank to still exist subsurface between two of the ancillary structures at Haysi High. The Phase I ESA completed for the stream and wetland mitigation sites did not reveal any concerns or indicate presence of HTRW materials.

Results of the Phase I ESAs for the proposed school site and mitigation sites do not suggest the presence of hazardous, toxic, or radioactive wastes. Results of the assessments do not indicate conditions and/or activities that would likely result in environmental impairment, for these components of the PAA either. The demolition of existing schools under the PAA will require appropriate measures and the proper handling and disposal of hazardous materials documented in the assessments. The LBP and ACM documented will be handled and disposed of in accordance with all Federal, state, and local laws and regulations by DCPS contractors. Prior to demolition, all ACM will be removed by a certified asbestos removal contractor, with

the ACM bagged and disposed of in an approved landfill. In addition, paint on some of the existing school buildings is subject to the Toxic Substance Control Act (TSCA). Demolition workers must be adequately trained to comply with all appropriate health and safety, handling, and disposal conditions. All measures to comply with Federal, state, and local regulations regarding tank closure and removal will be followed to properly remove the ASTs at Haysi High. The PAA does not involve activities that will encounter groundwater below the Clinchco Elementary site that is suspected to be contaminated from the abandoned landfill upgradient from the school. Appendix Q contains two memoranda from the USACE Huntington District Environmental & Remediation Section indicating all requirements were satisfied and no further HTRW investigations are warranted. The first memorandum pertains to the proposed middle/high school site, and the second pertains to the stream and wetland mitigation sites.

The proposed project will involve the excavation of native and previously disturbed soils during construction and demolition activities. Limited information is available with respect to the physical and chemical properties of these soils. If contamination is encountered anywhere within the proposed project area, construction will cease in the vicinity of the contaminated area until the type and extent of contamination is determined, and an appropriate containment or disposal plan is developed. The PAA will provide a measure of protection from documented HTRW concerns through proper removal and disposal of potential sources at the existing schools and is not anticipated to generate HTRW.

The NAA would result in the continued operation and occupancy of structures containing hazardous materials. However, the existing condition/physical state of the documented hazardous materials is not likely to present risks to occupants. Additionally, the NAA is not anticipated to generate HTRW.

### ***3.11 Floodplain and Flood Hazard Areas***

Executive Order 11988 requires Federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The Federal Emergency Management Agency (FEMA) operates the National Flood Insurance Program (NFIP) and publishes Flood Insurance Rate Maps (FIRMs) that indicate various categories of flood hazard areas. The effective FIRMs corresponding to the proposed construction site and eligible schools were reviewed. The proposed middle/high school site is well above the 100-year floodplain and elevations of the 1977 flood event. The FIRM indicates the portion of the site where all facilities will be located to be outside of the 500-year floodplain, in a “Zone X” area. Portions of the sewer line outfall, including its terminus near the Cranes Nest River, are within the floodplain. All school facilities at Sandlick Elementary, Clinchco Elementary, and Ervinton High and the ancillary facilities at Haysi High are located within the 1% annual chance of flood zone (100-year floodplain). Portions on the corresponding FIRM for each existing school are located in Exhibit 7 of Appendix F. The proposed middle/high school site is shown on Panels 117 and 119, Clinchco Elementary on Panel 136, Ervinton High on Panel

240, Sandlick Elementary on Panel 133, and Haysi High on Panel 145. Also enclosed in Exhibit 7 of Appendix F are aerial snapshots from Google Earth© of the National Flood Hazard Layer published by FEMA that depicts the 100-year floodplain at each existing school. In addition to being located in the 100-year floodplain, the main facilities at Sandlick Elementary and Ervinton High are within the regulatory floodway, along with the ancillary facilities at Haysi High. The regulatory floodway is the portion of the delineated 100-year floodplain having the greatest depths and swiftest currents and is mapped on some FIRMs.

The Section 202 Program administered by the USACE takes elevations from the 1977 flood event and the 100-year floodplain levels both into consideration. Though eligibility for the 202 program for a given structure is directly associated with the 1977 flood event, the 100-year floodplain is still considered in implementation efforts to ensure consistency with the NFIP and adequately address flood risks. In many instances the elevations of the 1977 flood event are higher than the 100-year flood elevations in corresponding locations. In fact, the 1977 flood elevations were higher at all existing school locations, with the exception of Clinchco Elementary where the 100-year flood elevation is slightly higher. Under the Section 202 program, relocation by acquisition is the only option for participating structures within the regulatory floodway. For eligible structures outside of the regulatory floodway various non-structural measures are evaluated and compared to relocation by acquisition. Relocation by acquisition is the only option for Sandlick Elementary, Ervinton High, and the ancillary facilities at Haysi High. Non-structural measures were evaluated for Clinchco by the USACE and it was determined that installation of a ringwall around the perimeter of the school to be more feasible than relocation. However, an owner can opt for relocation by acquisition but is only eligible for the amount required to implement non-structural measures to a given structure and it remain in place. With its plans to consolidate, DCPS has decided to relocate Clinchco Elementary by consolidation with the other three schools.

Portions of the project area are located within the 100-year floodplain (1% annual chance of flood). These areas are often classified as Zone A and Zone AE on the FEMA FIRMs. Areas with Zone A classification are deemed to be in the 100-year floodplain, but base flood elevations for such areas have not been determined. Zone AE areas are also in the 100-year floodplain and have determined base flood elevations.

A moderate number of residences associated with the PAA are located within the 100-year floodplain. The remainder of the project area falls under Zone X classification and is considered to be outside of the 100-year floodplain. Review of the most recent FIRM cited above verified floodplain status for a majority of structures associated with the PAA.

The PAA will have positive direct impacts to the floodplain through the removal of structures at the four schools within the floodplain. The proposed project will also deter future development from occurring at existing school sites through deed restrictions. Deed restrictions preventing non-compatible floodplain development will be filed for each existing school site and remain with the deed in perpetuity. The PAA aligns with Executive Order 11988 by attempting to reduce flood risks and associated losses, preventing floodplain development, and restoring natural and beneficial functions to portions of the floodplain. The portions of the sewer line alignment within the floodplain will be restored to previous contours and elevations and will not

impact the functioning of the floodplain. Permits for construction activities within designated flood hazard areas are required under NFIP regulations. The contractor will be responsible for obtaining all necessary floodplain permits from the Dickenson County Floodplain Coordinator prior to construction activities in a flood hazard area.

The NAA would result in current schools remaining within the floodplain and continue to pose risk to human safety of students, staff, and area residents. The NAA would also result in the existing schools being susceptible to damages and economic losses as a result. Also, the NAA would continue to alter the natural functions of the floodplain with structures remaining in the regulatory floodway.

### ***3.12 Prime Farmland/Land Use***

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures, to the extent possible, Federal programs are administered to be compatible with state and local units of government, and private programs and policies to protect farmland. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland.

The USDA Natural Resources Conservation Service (NRCS) and the DCR were contacted by letter for their comment on Prime Farmland and classified lands within the project area. Copies of correspondence with these agencies are contained in Appendix H. According to NRCS, no impacts to farmland, as defined by the Farmland Protection Policy Act, are anticipated under the PAA. The Farmland Conversion Impact Rating was completed by the NRCS and concluded that no prime farmland would be impacted/converted as a result of the proposed project. According to DCR, no State Natural Area Preserves under their jurisdiction are present in the vicinity of the proposed project

Land use in the region is determined primarily by the topography, historical trends, and natural and mineral resources. Most of the region was underdeveloped until the mid-1850s until the importance of the area's natural resources, such as timber, coal, and natural gas were recognized.

While the majority of land within the boundaries of the new proposed middle/high school complex site is undeveloped, surrounding area land uses are primarily residential and there are small non-commercial farms present too. The vast majority of the land surrounding the rural residential areas and small non-commercial farms is undeveloped forest land. A forest habitat evaluation was performed by D.R. Allen & Associates and evaluated the land use of the project area. This report is enclosed in Appendix N. The following land uses were identified: agricultural/grazing land – 7.68 acres; residential – 0.89 acres; recently logged forest – 37.33 acres; second growth forest – 56.44 acres; and gas lines/wells/access roads – 12.02 acres. Implementation of the PAA will convert these land uses. Upon completion the lands would be classified as developed public facilities. Lands upon the demolition sites will convert from

developed public facilities to open space, and are likely to succeed into forested riparian areas over time if no other floodplain compatible uses are implemented by future landowners.

In order to minimize adverse impacts to the land uses of the project area and bordering lands, the PAA will follow all applicable local, state, and Federal regulations. An erosion and sediment control plan, as described in the *Virginia Erosion and Sediment Control Handbook, 1992*, will be developed, approved, and implemented prior to any construction activity. All disturbed areas will be stabilized and vegetated, as soon as practicable to reduce the amount of time barren soils are exposed.

The NAA would have no impact on Prime Farmland or the existing land use of the proposed project area.

### ***3.13 Transportation***

The transportation network within Dickenson County corresponds directly to the natural features and topography of the area. Winding roads with frequent elevation changes are common. No Federal Interstate Highway Systems exist within the county, but numerous state routes and secondary roads dissect the county. There are three state highways, State Route (SR) 63, SR 80, and SR 83, within the vicinity of the proposed construction site. These routes will serve as the primary travel routes for access to the middle/high school complex. The proposed construction site on Rose Ridge is accessed from SR 637. Just less than one mile to the proposed construction site SR 637 intersects with SR 83 and approximately five miles slightly to the northeast of the site SR 637 intersects with SR 63. Ervinton High School is situated directly adjacent to SR 652 almost two miles to the south of the intersection of SR 652 and SR 63. Clinchco Elementary is located just off of SR 83 north of the community of Clinchco. Haysi High School is bounded by SR 80 and SR 80 intersects with SR 83 within view of the school, less than half a mile south of the Town of Haysi. Sandlick Elementary located just two miles south of Haysi High School at the intersection of SR 80 and SR 607. Rail transportation is provided by CSX Transportation and Norfolk Southern Railway System throughout portions of the county.

The PAA involves some minor road modifications on SR 637 between its intersection with SR 83 and the primary entrance to the school campus. Modifications will include widening and sight line improvements to improve safety and accommodate bus and associated school traffic. Installation of a turn lanes where SR 637 meets the primary entrance to the campus and a turn lane on SR 83 where it meets SR 637 will be necessary to facilitate traffic movement.

The PAA is anticipated to have minor temporal and long-term impacts to the transportation network and traffic patterns within the county. Concerning temporal impacts, increased traffic in the form of contractor vehicles, tractor-trailer delivery trucks, concrete trucks, road legal dump trucks, and other construction related vehicular traffic is anticipated throughout the construction period. The construction timeframe for the proposed middle/high school complex is anticipated to take 24-30 months. The area of SR 637 near the proposed site and adjacent state highways will likely see the greatest increases in traffic, and other highways in the county and region will

experience only minor volume increases. During the demolition of existing school facilities, minor increases in traffic are anticipated on roadways adjacent and in the nearby vicinity of those schools. Road legal dump trucks hauling demolition from the sites and contractor vehicles would be the sources of traffic increases during the demolition phase. The demolition phase is anticipated to take 3-6 months cumulatively and it is possible that the various schools may not be demolished simultaneously. Mobilization of large pieces of equipment and construction on SR 83 and SR 637 will require flagging and pilot vehicles to ensure safety and direct traffic. All necessary permits from the VDOT will be obtained prior to construction. The road improvements associated with the PAA along SR 637 and SR 83 will improve traffic flow and add safety to the route through that particular stretch. All modifications will be completed in accordance with VDOT standards.

Under the PAA, long-term minor impacts to the transportation network and traffic patterns are anticipated to occur on SR 637 and other highways and secondary roads in the near vicinity of the middle/high school site throughout its operational existence. Increased traffic in the form of buses and passenger vehicles driven by staff and students is expected in the direct vicinity of the middle/high school during operating times. Modifications are planned under the PAA to offset these minor impacts and accommodate increases in traffic. At the present bus routes are widespread throughout the county and will continue to be, as the same students will be served by the new middle/high school. It is anticipated that decreases in bus and passenger vehicle traffic will occur in the near vicinity of existing schools once they are no longer in operation.

No changes to the current transportation network and traffic patterns would be anticipated under the NAA.

### ***3.14 Aesthetics***

The proposed middle/high school site lies within an undeveloped area and is bordered by semi-rural residential development along its southern border. Many of the residences are situated close to SR 637, but a few are set back from the roadway, closer to the southern and eastern perimeters of the site. In addition to homes, a water storage tank is located on the highest ridge within the community on the east-central border of the site. The school facilities located at Clinchco and Sandlick are located in similar surroundings, with residential structures visually screened and two-lane paved roadways bordering the sites. The ancillary facilities at Haysi are located in a more developed area just outside of view from the Town of Haysi. The facilities are located on a floodplain bench split by SR 80 from the main campus on the bench above. In the absence of tree foliage there is one commercial structure several hundred feet away and within view of the ancillary facilities. Ervinton is located in a rural area of the county and the campus is situated in an area where other structures are not readily visible. Residential development is sparse and sporadic in the area surrounding Ervinton and the closest residence is over 500 feet from the main campus.

During construction and demolition of the PAA, heavy equipment will be utilized and left on site. Therefore, the aesthetic quality of the area will be temporarily affected by the equipment and unfinished appearance of the sites. The proposed middle/high school facilities will be within the viewshed of several residences along Rose Ridge, changing the surrounding visual

environment from what presently exists. However, the completed school facilities will be situated on a landscaped campus and setback from residences to the maximum extent possible under the proposed design. The completed school facilities will be of modern construction style and are not anticipated to be aesthetically displeasing to the surrounding environment. All debris and rubble will be removed from the school sites scheduled for demolition and the sites will be revegetated. The post-demolition conditions of the PAA will not negatively impact the aesthetics of the surrounding areas.

There would be no aesthetic impacts to the proposed project area and its immediate surroundings as a result of the NAA.

### ***3.15 Cumulative Impacts***

The potential for cumulative effects of the proposed project on the environment must be considered as stipulated by NEPA. Cumulative effects are, as defined by the Council on Environmental Quality (CEQ), “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions.” Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR Part 1508.7).

The cumulative effects analysis qualitatively presented below is based on the potential effects of the proposed project when added to similar impacts from other projects in the region. An inherent part of the cumulative effects analysis is the uncertainty surrounding actions that have not yet been fully developed. The CEQ regulations provide for the inclusion of uncertainties in the analysis and states that “when an agency is evaluating reasonably foreseeable significant adverse effects on the human environment...and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking” (40 CFR 1502.22). The CEQ regulations do not state that the analysis cannot be performed if the information is lacking.

During scoping of potential cumulative effects it was determined that only one resource area, aquatic resources, has potential for cumulative effects. Therefore, this cumulative effects evaluation will be limited to the evaluation of the project impact to this resource. Temporal and geographical limits for this project must be established in order to frame the analysis.

The temporal limits for assessment of this impact on aquatic resources would initiate in 1972 with the passage of the CWA and end in 2025 or ten years after completion of the proposed project. The geographical extent would be the Russell Fork Watershed. Past and present impacts on water quality and resources within this area are primarily development driven in the form of construction, resource extraction, roads, and effluents from the human community. The same stressors are anticipated in the reasonably foreseeable future. On the positive side, the CWA established regulatory controls over development at both the federal and state levels. These regulatory controls aim to achieve attainment of water quality standards to support different uses of the water and sustain aquatic resources. The proposed project will require acquiring all CWA permits and will be constructed and operated in accordance with these permits.

There is a measurable impact on streams and wetlands within the area under the proposed project. Compensatory mitigation will be performed within the Russell Fork watershed and subsequent monitoring performed as well, to ensure mitigation efforts meet the ecological values established to adequately offset the effects of the project. Additionally, the mitigation efforts will provide measures of enhancement to aquatic resources within the identified area and protect them into the foreseeable future through legal clauses. It is anticipated that the NFIP and Section 202 Program will be in place into the foreseeable future, and positive cumulative effects on floodplains within the area are expected as a result. Ultimately, the removal of structures from floodplain will cumulatively improve the health and human safety conditions for residents within the county and reduce economic losses from future flood events.

At the present, the DCPS has indicated that it intends to pursue implementation of a consolidated elementary school in the near future under the Section 202 Program. This project has potential to contribute direct, indirect and cumulative impacts to the current project. However, an appropriate location for the school has not yet been determined. The DCPS is in the process of evaluating potential sites to assess suitability in regards to physical size, proximity to the population center of the county, deed specifications, environmental impacts, cost, and other factors. Upon selection of a site, an appropriate supplemental National Environmental Policy Act (NEPA) document will be completed to evaluate the direct, indirect and cumulative impacts of this action. The elementary school will not be located on or directly adjacent to the proposed middle/high school complex, and will be of independent utility.

## **Section 4 – Agency and Public Coordination**

### ***4.1 Public Involvement***

The Draft Environmental Assessment for the Dickenson County Public Schools Consolidated Middle/High/Career Technical School Complex Section 202 Project will be made available to environmental resource agencies, project stakeholders, and the general public for a 30-day review period as required by the National Environmental Policy Act (NEPA).

The following agencies were consulted on various resources and the potential impacts posed on them by the PAA.

- U.S. Fish and Wildlife Service
- Virginia Department of Environmental Quality
- Virginia Department of Historic Resources
- Virginia Department of Conservation and Recreation
- Virginia Marine Resources Commission
- Virginia Department of Game and Inland Fisheries
- U.S. Army Corps of Engineers, Norfolk District
- Virginia Department of Transportation

A Notice of Availability (NOA) has been prepared and will be published in the Dickenson Star concerning this document. A copy of the NOA can be found in Appendix R. Comments and recommendations received during the 30-day review period will be taken into consideration and included in the Final Environmental Assessment document. A copy of the mailing list can be found in Appendix S.

## 4.2 Statutory Compliance

Table 1 below provides a summary of applicable Federal Statutes and other pertinent statutes for the PAA, along with the compliance status for each listed.

**Table 3: Compliance Status of PAA**

<b>FEDERAL STATUTES</b>	<b>Compliance Status</b> FC = Fully Compliant NC = Not Compliant PC= Partially Compliant
Archeological and Historic Preservation Act as amended, 16 U.S.C. 469, <u>et seq.</u>	FC
Clean Air Act as amended, 42 U.S.C. 7401, <u>et seq.</u>	FC
Clean Water Act (Federal Water Pollution Control Act) as amended, 336 U.S.C. 1251, <u>et seq.</u>	FC (mitigation pending)
Endangered Species Act as amended, 16 U.S.C. 1531, <u>et seq.</u>	FC
Fish and Wildlife Coordination Act as amended, 16 U.S.C. 661, <u>et seq.</u>	FC
National Environmental Policy Act as amended, 42 U.S.C. 4321, <u>et seq.</u>	FC (public review underway)
National Historic Preservation Act as amended, 16 U.S.C. 470a, <u>et seq.</u>	FC
Rivers and Harbors Act, 33 U.S.C. 403, <u>et seq.</u>	FC
Wild and Scenic Rivers Act as amended, 16 U.S.C. 1271, <u>et seq.</u>	FC
<b>EXECUTIVE ORDERS, MEMORANDA, ETC.</b>	
Floodplain Management (E.O. 11988)	FC
Protection of Wetlands (E.O. 11990)	FC (mitigation pending)
Environmental Justice in Minority Populations and Low-Income Populations (E.O.12898)	FC
Analysis of Impacts on Prime and Unique Farmland	FC

## Section 5 – Mitigation and Best Management Practices

The following mitigation measures and best management practices (BMPs) will be taken by the DCPS and contractors to reduce or lessen any potential negative impacts that the project may have on the environment.

1. Obtain all required permits, such as building permits, highway access, and erosion and sediment control permits. Perform all necessary compensatory mitigation and perform monitoring in accordance with permit conditions.
2. An erosion and sediment control plan must be approved by the appropriate approving agencies and approval officials. This plan must be strictly followed. For any land disturbing activities equal to one acre or more, the applicant is required to apply to DCR for registration coverage under the General Permit for Discharges of Stormwater from Construction Activities.
3. Fugitive dust caused by the movement of construction materials and construction equipment will be controlled by periodic spraying of the affected areas with water and washing down construction vehicles and paved roadways immediately adjacent to the construction site. The following sections of Virginia Administrative (VAC) may be applicable: 9 VAC 5-50-60 et. seq., governs the abatement of visible emissions and fugitive dust emissions, and 9 VAC 5-40-5600 et. seq. addresses open burning.
4. Construction will be limited to normal daylight hours and contractors will be required to properly maintain equipment to control air and noise pollution.
5. All disturbed areas will be restored to pre-construction conditions. Denuded areas will be revegetated immediately.
6. A plan will be incorporated into the construction documents for treatment of unexpected historical or archaeological discoveries during construction. The plan will include names, telephone and fax numbers of the appropriate County and agency contacts. The plan will include the following stipulations:
  - a) In the unlikely event that previously unidentified human remains and/or associated funerary objects are discovered during ground disturbing activities, the contractor must comply with all applicable laws which include Section 10.1-2304 of the Code of Virginia and the Native American Graves Protection and Repatriation Act (NAGPRA) (43 CFR 10). All construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can be reasonably expected to occur. Reasonable efforts must be taken to protect the human remains and associated objects. The contractor will immediately contact the county coroner and the sheriff's office. The USACE, RD and DHR will also be immediately notified. Within three working days of notification, the federal agencies will initiate consultation with tribal nations if the remains are determined to be of Native American descent. Upon completion of consultation, a plan of action will be developed for the treatment of human remains and

/or associated funerary objects. Construction cannot resume until the terms of the plan of action have been completed.

- b) In the event that a previously unidentified archaeological resource is discovered during ground disturbing activities, all construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can be reasonably expected to occur. The contractor will immediately contact the USACE and RD. The DHR, or an archaeologist approved by their office, will immediately inspect the work site and determine the area and the nature of the affected archaeological property. Construction work may then continue in the project area outside of the site area. Within 10 working days of the original notification of discovery, the USACE and RD, in consultation with the DHR, will determine the National Register eligibility of the resource.
- c) If the resource is determined to meet the National Register Criteria (36 CFR 60.6), compliance with 36 CFR § 800.11 will be ensured. Work in the affected area shall not proceed until either (a) the development and implementation of appropriate data recovery or other recommended mitigation procedures is established, or (b) the determination is made that the located remains are not eligible for inclusion on the National Register.

7. Plans and Specifications involving the street access will be provided to the VDOT for review and approval. The applicant and/or contractor will be responsible for obtaining all permits and approvals required by VDOT. A land use permit will need to be issued by VDOT for any access and/or impact to the right-of-way of Route 637.

8. To minimize overall impacts to wildlife and natural resources, the applicant will avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practical. The storm water controls for this project should be designed to replicate and maintain the hydrographic condition of the site prior to the changes in the landscape. This should include, but not limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales.

9. Solid wastes generated at the site will be reduced at the source, reused, or recycled. All hazardous wastes will be minimized. Otherwise, all solid waste, hazardous waste, and hazardous material will be managed in accordance with all applicable federal, state, and local environmental regulations.

10. The use of herbicides or pesticides for construction or landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species will be used.

11. Principles of pollution prevention are to be incorporated into the project to maximum extent practicable, including the consideration of environmental attributes of purchased materials; contractors' commitments to the environment; use of sustainable practices and materials in the infrastructure, construction and design; and maintenance and operation activities to include source reduction (fixing leaks, energy efficient products).

12. The structure is to be planned and designed to comply with state and federal guidelines and industry standards for energy conservation and efficiency. Energy efficiency should be maximized by the use of thermally-efficient building shell components and high efficiency heating, ventilation, air conditioning, and lighting systems when possible.

## **Section 6 – Conclusion**

The proposed project will provide modern educational facilities adequate to serve the middle and high school age students of Dickenson County. The primary and supporting school facilities will be located well above the elevations of the 100-year flood and the flood event of 1977. Upon completion the existing eligible schools will be demolished and future development at those locations will be limited to floodplain compatible development by legal deed restrictions. The proposed project will impact and result in the loss of streams and wetlands on the proposed construction site. The amount of each aquatic resource being impacted has been quantified and mitigation plans have been developed for implementation to adequately compensate for impacts to aquatic resources. With the mitigation measures in place for streams and wetlands no significant impact is anticipated as a result of the PAA. The removal of existing school facilities from the regulatory floodplain and floodway will have a positive impact on the health and human safety of students, staff, and area residents. Additionally, the removal of the existing schools within flood hazard areas will reduce potential future damages and economic losses resulting from flood events. The NAA is anticipated to result in the DCPS system operating in its present manner. The present operational framework of the DCPS has been determined to not be as financially efficient as consolidation measures and does not provide the extent of curriculum that the consolidated measure will. Additionally, the NAA would result in the existing schools continuing to operate in flood hazard areas posing health and safety risks to students, staff, and area residents. These serious risks will be significantly reduced by implementation of the PAA.

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## **APPENDICES**

Appendix A – Interagency Coordination Letters, USACE Hunting District and USDA RD

Appendix B – New Dickenson County Consolidated School Campus EA, The Lane Group, Inc., September 2012

Appendix C – Section 202 Dickenson County Nonstructural Project, Detailed Project Report and Environmental Assessment, USACE Huntington District, 2004

Appendix D – Section 202 Dickenson County Nonstructural Project, Design Document Report, USACE Huntington District, 2012

Appendix E – Floodproofing Contract, September 2010 and Relocation Contract, August 2011

Appendix F – Exhibits/Maps

Appendix G – Alternative Sites Analysis, The Lane Group, Inc., May 2011

Appendix H – Agency Correspondence

Appendix I – Jurisdictional Determination, D.R. Allen & Associates, P.C., March 2012 and USACE, Norfolk District Approval Letter, April 2012

Appendix J – Joint Permit Application, D.R. Allen & Associates, P.C., June 2012 and USACE Norfolk District Public Notice, July 2012

Appendix K – DEQ Section 401 Draft VWPP and Public Notice Verification, October 2012

Appendix L – VMRC General Permit Notice, July 2012

Appendix M – DEQ VPDES Permit for DCPS Wastewater Treatment Plant and Discharge, May 2012

Appendix N –Habitat Evaluation, D.R. Allen & Associates, P.C., April 2012

Appendix O – Bat Survey Study Plan, Summary Letter, and Survey, Environmental Solutions & Innovations, Inc., June 2012

Appendix P – Virginia Spiraea Field Survey, Douglas Ogle, June 2012

Appendix Q – Phase I HTRW Memoranda, USACE Huntington District, August 2012 and October 2012

Appendix R – Notice of Availability

Appendix S – Mailing List