

DRAFT ENVIRONMENTAL ASSESSMENT

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

**APPENDIX B – NEW DICKENSON COUNTY CONSOLIDATED HIGH SCHOOL
CAMPUS, ENVIRONMENTAL ASSESSMENT (The Lane Group, Inc., 2012)**

U.S. ARMY CORPS OF ENGINEERS

HUNTINGTON DISTRICT

HUNTINGTON, WEST VIRGINIA

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NEW DICKENSON COUNTY
CONSOLIDATED SCHOOLS CAMPUS
ENVIRONMENTAL ASSESSMENT

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SECTION 1

BACKGROUND AND OVERVIEW

In April of 1977, Dickenson County experienced devastating flooding affecting hundreds of homes, businesses, schools and other locations within the County. Many of these structures, including schools, remain in the floodway leaving students and occupants at high risk of injury during a flood. The greater part of Dickenson County lies within the Russell Fork drainage basin which flows into the Levisa River. Flooding is a frequent occurrence in this area, and some floods, such as the flood of 1977, have been devastating. Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367) 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. This authority includes Dickenson County.

The U.S. Army Corps of Engineers (USACE) has worked extensively with the County to develop a flood protection plan which would ensure the safety of the County's residents, including students and school employees. In 2003, the USACE completed a Detailed Project Report (DPR) which outlines structural and non-structural alternatives to reduce flood damages from a recurrence of the 1977 flood or 100-year flood, whichever was greater. The DPR (enclosed in Appendix A) provides a detailed analysis of the flooding problems and proposed solutions in the Levisa Fork Basin in Dickenson County. It also identified a number of homes, businesses and public buildings within the floodplain for flood protection or relocation, including Ervinton High School, Sandlick Elementary School and Clincho Elementary School and support buildings at Haysi High School.

1.1 Project Description

The U.S. Army Corps of Engineers and USDA Rural Development have allocated funds to Dickenson County for the proposed project. The total project involves the demolition of school buildings that are currently located in the floodplain and construction of a consolidated high school campus and a consolidated elementary school. The buildings to be demolished are Clincho Elementary School, Ervinton High School, Sandlick Elementary School and the support buildings at Haysi High School.

The County has determined that it is in the best interest of the majority of the students of the County to consolidate its existing high schools. A new high school, a new middle school and a new career technical school will be constructed on one site. The schools are collectively referred to throughout the remainder of the report as the New Dickenson County Consolidated High School Campus. The location of the consolidated high school campus is shown as Figure 1 in Appendix B, and is commonly referred to as Rose Ridge. This project involves the construction of approximately 222,000 square feet of classrooms, labs, special

education areas, 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. The facility will be served by a package wastewater treatment plant that will discharge into Cranesnest River. This report specifically addresses the high school/middle school/career technical school only.

An actual site and exact location for an elementary school has not yet been determined. The County is in the process of evaluating potential sites to assess their suitability in regards to physical size, proximity to population centers of the County, deed specifications, and cost. Upon selection of a site, the environmental document will be amended with a document that evaluates impacts on the chosen site. In addition, a supplemental National Environmental Policy Act (NEPA) document will be completed to evaluate impacts in a cumulative manner.

Upon completion of construction of the new high school and elementary schools, the school buildings that remain in the floodway (Clincho Elementary, Ervinton High, Sandlick Elementary, and support buildings at Haysi High) will be demolished. The County is in the process of evaluating waste disposal sites. A supplemental NEPA document will be completed to evaluate the cumulative impacts of the demolition action.

1.2 Purpose, Need, and Authorization of the Project

The purpose of the proposed project is to eliminate the potential risks associated with the location of several County school buildings remaining in the floodway. Occupants of these buildings, as well of dwellings downstream of these buildings, are at a very high risk of injury in the event of a flood. In addition, the current situation presents threats to life and safety created by evacuation scenarios during flooding. Many of the access roads to and from the existing schools are located in hazard areas which would likely be inundated in the event of a flood, posing additional threats to students, faculty and first responders. Failure to pursue this project would continue to present serious safety risks to the students and employees of the Dickenson County School System.

In addition to the predominant risk to human safety, 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.

The following legislation authorizes this project:

- (1) *Section 202 of the Energy and Water Development Appropriation Act of 1981 (P.L. 96-367)* 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. This authority includes Dickenson County.

- (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 105 of Public Law 96-367 (November 1996)* states that non-structural 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.
- (5) *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.

SECTION 2

ALTERNATIVES TO THE PROPOSED ACTION

The New Dickenson County Consolidated High School Campus, Alternatives Analysis, was completed in May 2011 by The Lane Group, Inc. This alternative sites analysis evaluated the suitability of 17 proposed sites throughout the County for the construction of the high school/middle school/career technical school complex. The complete report is included as Appendix C.

A rating matrix was utilized to rank the sites according to the established criteria. The criteria for comparison were site size, location within the County relative to the population center of the County, development costs, displacements of residents or businesses from their dwellings, and deed restrictions. Sufficient acreage was determined to be one of the most significant factors for site favorability. Sites with more than 50 acres were determined to be sufficient, while sites with insufficient acreage were automatically eliminated. Location within the County was also determined to be one of the most significant factors for site favorability. Sites that were located within 2.5 miles of the population center of the County were most favorable, while sites located more than 7.5 miles from the population center were less favorable. Development costs were weighted as a significant factor. Sites with less than 500,000 cubic yards of excavation were most favorable, while sites with more than 1,000,000 cubic yards of estimated excavation were least favorable. Sites were ranked for displacement of households

and/or businesses, with no displacements as most favorable and sites involving multiple displacements as least favorable. Lastly, as mining operations within the County and deed restrictions often limit surface activities, this criterion was determined to be a significant factor for site favorability. Sites with no known restrictions and/or exceptions associated with the property were rated as most favorable and sites with restriction/severances that would prohibit project activities were rated as least favorable.

The alternatives analysis served as a multi-criteria selection tool. Each of the potential sites were compared collectively and screened based on objective categories. The results of the analysis indicated that the Rose Ridge site (S-4 in the analysis) is the best suited for locating the school facilities required to support present and anticipated enrollment. Consequently, only the S-4 alternative and the “no action” alternative will be evaluated in further detail. Site S-4 will be referred to as Alternative 1 and “the proposed project” throughout the remainder of this document.

Alternative 1 – Construction of a consolidated high school campus on Rose Ridge site.

According to the rating matrix, the proposed site ranked as the number one site. The site is located along Route 637 in the Rose Ridge community (Figure 1 – Appendix B). The site met the size requirements and does not have any known deed restrictions which would limit construction activities or would present liability concerns. Development costs for this site were estimated to be moderate. The site also is one of the closest sites relative to the population center of the County. One voluntary displacement of a vacant structure will be necessary under the proposed project. This displacement has been agreed upon by the owner and the County and therefore, the displacement is void of conflict.

The proposed project involves the construction of 222,000 square feet of classrooms, labs, special education areas, 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 VDOT safety regulations. The facility will be served by an existing public water system, however, a package wastewater treatment plan will be constructed to treat sewer waste generated at the site. Treated effluent will then be discharged into the Cranesnest River. The acquisition of approximately 107 acres, which is divided into three tracts, will be necessary to complete the construction of the proposed school facilities.

Upon completion of the new facilities, the school structures currently located within the floodplain will be demolished.

Alternative 2 – “No Action”

The No Action Alternative would involve taking no action, allowing the buildings currently located in the floodplain to remain in place. The schools would continue to

operate as they presently do, under the risk of flooding. “No Action” would fail to eliminate the serious risks associated with the location of several County school buildings located within the floodway. Occupants of Clincho Elementary School, Ervinton Elementary School, Sandlick Elementary School, and the support buildings at Haysi High School would continue to be at a very high risk of injury in the event of a flood.

In addition to the predominant risk to human safety, 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. Failure to pursue this project would continue to present serious safety risks to the students and employees of the Dickenson County School System and burden the school system with preventable economic losses.

SECTION 3

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES

Dickenson County is located on the Appalachian plateau in Southwest Virginia and is one of the most significant coal producing counties in the state of Virginia. With an area of 335 square miles, elevations within the County range from 1,200 to 3,137 feet mean sea level. 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 throughout the project area. More than 83% of the County is wooded with portions being located within the Jefferson National Forest. The grassy, mountainous terrain makes Dickenson County suitable for raising beef cattle and growing hay and burley tobacco. Coal mining has also long been a major industry in the County.

The New High School site is located in the Rose Ridge community in north central Dickenson County, VA near Fremont (See Figure 1 – Appendix B). Elevations on the site range between 2000 and 2200 feet mean sea level. The topography of the project area is flat to sloping and is primarily composed of forest with smaller amounts of pastureland. The Area of Potential Effect (APE) for the high school campus is defined as the area immediately adjacent to the construction site and the areas adjacent the proposed road improvements, access roads, and sewer line corridor. The construction site is approximately 107 acres and includes forested land and open spaces. Historically, the land has been used primarily for farming practices, including hay crops and cattle grazing. The forested areas were harvested for timber in 2011. 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’s APE also includes the properties of Clincho Elementary, Ervinton High, Sandlick Elementary and the support buildings at Haysi High School. Figure 2 illustrates the locations of these sites within the County. The APE at these sites is limited to the area immediately adjacent to the structures to be demolished.

3.1 Land Use / Important Farmland

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 project area is still undeveloped, area land uses are primarily residential with forests and small non-commercial farms. 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 E. 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.

The USDA Natural Resources Conservation Service (NRCS) and the Virginia Department of Conservation and Recreation (DCR) were contacted by letter for their comment on prime farmland and classified lands within the project area. Copies of correspondences with these agencies are contained in Appendix E. According to NRCS, no impacts to farmland, as defined by the Farmland Protection Policy Act, are anticipated. 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 DCR's jurisdiction are present in the project vicinity.

In order to minimize adverse impacts to the land uses of the project area, activities 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, Virginia Department of Conservation and Recreation, 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 no action alternative would have no impact on the existing land use of the project area.

3.2 Floodplains

The project area was compared to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Copies of these maps are enclosed in Appendix B.

The high school campus site is shown on Dickenson County, Virginia, Panel 117 and 119 of 350. The high school campus site has been designated as Zone X –

Areas determined to be outside the 500-year floodplain. Areas immediately adjacent to the Cranesnest River are designated as Zone A. However, no structures will be constructed within this area. Only the sewer outfall line and leachate field will be constructed within this area.

Also enclosed in Appendix B are floodplain maps for the locations of the schools to be demolished, Clincho Elementary, Ervinton High, Sandlick Elementary, and the accessory buildings at Haysi High School. Clincho Elementary is shown on Panel 136, Ervinton High on Panel 240, Sandlick Elementary on Panel 133 and Haysi High on Panel 145. Also enclosed in Appendix B are aerial snapshots from the National Flood Hazard Layer published by FEMA that depicts the floodplain at each location. As previously discussed, these structures are located within the 100 year floodway, Zone AE.

Removal of the existing buildings from the floodplain by demolition will result in reduced hazards for the students and staff. The floodplain will be restored to allow it to function more effectively in these areas. Removal of these buildings also offers compliance with Executive Order 11988 which requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In implementing this project, the USACE is accomplishing the objective as follows: "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions: acquiring, managing, and disposing of federal lands and facilities; providing federally-undertaken, financed, or assisted construction and improvements; conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

While a disposal site for the demolition materials has not been chosen, no waste material will be disposed of within a floodplain.

The No Action Alternative would have negative impacts on human safety and the environment. Failure to remove the school buildings from a known flood risk area and allowing them to operate as they presently do, would present serious risks to the faculty and staff of these schools. In addition to the predominant risk to human safety, future flooding would present significant economic losses.

3.3 Wetlands

The online National Wetland Inventory maps indicated that there are no wetlands identified within the site. Areas thought to be characteristic of wetlands were observed during the first site investigation. A wetlands delineation was conducted

by Dewberry and Davis, Inc. A copy of this report is enclosed in Appendix F. The jurisdictional delineation (JD) was finalized by D.R. Allen and Associates. A copy of the approved JD is enclosed in Appendix F.

No impacts to waters or wetlands will occur from the demolition and disposal work or the roadway improvements. Efforts were made by the design engineers and architects to avoid and/or minimize potential impacts to wetlands. However, impacts to the wetlands on the high school campus are unavoidable. The total proposed impacts from the project, temporary and permanent, are approximately 2,025 linear feet of stream channel (560 perennial, 1,215 intermittent, and 250 ephemeral), and 2.003 acres of wetlands (1.00 palustrine forested and 1.003 palustrine emergent). Of the permanent impacts, 0.21 acres of emergent wetlands have been impacted by the construction of an existing access road onto the property.

As a result, a USACE 404 Individual Permit (IP) has been submitted to the USACE. A conceptual mitigation plan is in place. To compensate for the temporary impacts to 275 linear feet of stream and 126 square feet of wetland (0.003 acre) from the utility line installation and 220 linear feet of anticipated sediment accumulation, the applicant proposes to restore the impact sites upon completion of the required work to pre-construction contour and condition. Application of the Unified Stream Methodology (USM) indicates that the proposed project's 1,530 linear feet of permanent stream impact (410 perennial, 870 intermittent, and 250 ephemeral) requires 1,673 compensation credits. The applicant proposes to perform 850 linear feet of perennial stream restoration and 770 linear feet of riparian buffer enhancement in Spring Fork at the Ervinton High School site upon demolition of that facility. Additionally, 800 linear feet of intermittent stream enhancement will be completed in an unnamed tributary to Long Fork. The 2,420 linear feet of stream mitigation work will provide 1,756 compensation credits as determined by application of the USM. The applicant proposes to 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.

In addition to the required Department of the Army permit, the applicant must obtain a Virginia Water Protection Permit (VWPP)/401 certification from the Virginia DEQ assuring that applicable laws and regulations pertaining to water quality are not violated, and a Virginia Discharge Elimination System (VPDES) permit from the Virginia DEQ. Prior to any land disturbing activity, all required permits will be obtained.

The No Action Alternative would have no impact on wetlands.

3.4 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 discontinuous project areas. Of high concern is the cluster of resources near Haysi High School, which has been determined to be eligible for listing in the National Register of Historic Places. 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. DHR also recommended an archaeological survey of the proposed site of the new school, 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 of the location proposed for the construction of a high school campus with a wastewater treatment plant, outfall line and leachate field at Rose Ridge was performed by Browning & Associates, Ltd. A copy of this report is enclosed in Appendix G. Also evaluated were the horizontal alignment improvements to Route 637 from the proposed school to Route 83 for school bus access. Shovel testing showed no archaeological sites within the school, wastewater treatment plant, or leachate field areas. Visual examination on the outfall line showed two archaeological sites located within and adjacent to the floodplain of Big Branch where a wastewater outfall line will be placed. Both are recommended not eligible due to lack of effect, their late dates and the low return on investment for providing significant information. Two other locations of cultural materials were identified which failed to cross the three artifact threshold for site designation per DHR Guidelines. The leachate field where the outfall line terminates 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 have had cultural resources.

In addition, the Area of Potential Effect 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 schools, wastewater treatment plant, outfall line, leachate field and road improvements are proposed. Survey of standing structures showed no structures recommended eligible for the NRHP within the project limits. Indirect effect survey consisted of structure sets along Route 637 but visible from Rose Ridge. Several standing structures were surveyed within the project viewshed. These were 4th quarter 19th to middle 20th century single family domestic buildings with associated outbuildings. Some were related to agricultural pursuits while the majority was related to ribbon development along Route 637. Three

cemeteries were also identified and recorded. None of the structures in the viewshed was considered significant.

The survey also included evaluation of the schools that are slated to be demolished as part of the ACOE/Dickenson County School Division contract. None of the structures identified and evaluated are eligible for individual listing on the National Register of Historic Places.

Based on the survey findings, the report recommends that the project proceed to construction. DHR concurred with the report findings and determined that “further work is not recommended for this project due to the lack of archaeological sites. Construction is recommended to proceed.”

The development of a plan for the treatment of unanticipated archaeological discoveries in accordance with §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. The Virginia SHPO, 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, SHPO 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 Section 800.11 of the Council’s regulations 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, or (b) the determination is made that the located remains are not eligible for inclusion on the National Register.

The No Action Alternative would have no adverse impacts on cultural resources.

3.5 Threatened and Endangered Species

The Virginia Department of Conservation and Recreation (DCR) and Virginia Department of Game and Fisheries (DGIF) were contacted by letter for their comment on the proposed project. In addition, the U.S. Fish and Wildlife (USFWS) Information, Planning and Consultation System (IPaC) was utilized. Copies of correspondences with these agencies are included in Appendix F.

According to DCR files, the Cranes Nest River-Rush Creek Stream Conservation Unit is located within the project site. 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 Virginia Department of Game and Inland Fisheries. It is also listed as a species of concern by USFWS, however, this designation has no legal status. Due to staffing limitations, the DGIF Fish and Wildlife Information Services Section (FWIS) is unable to review or provide an assessment of any projects submitted to them for review.

The USFWS IPaC identified the Indiana bat (*Myotis sodalis*) as a listed species with the potential to be present in the project area. The Indiana bat species fact sheet was reviewed. According to the fact sheet, the Indiana bat hibernates on flat ceilings of caves and half of all hibernating Indiana bats winter in Indiana. Males roost in caves during the summer, while maternity colonies are located in riparian forests along streams. The project area has not been designated as a critical habitat for the Indiana bat. In addition, recent logging activity on the project site by the former property owner has disturbed much of the forest. Completion of the USFWS online review process resulted in a “not likely to adversely affect” determination for proposed/listed species and proposed/designated critical habitat. In addition, a “no Eagle Act permit required” determination for eagles regarding potential effects of the proposed project was concluded. The resulting certification letter and project review package was submitted to USFWS.

USFWS recommended a detailed habitat assessment for the Indiana bat at the proposed school site by an approved surveyor to identify suitable habitat. It was determined that the site did provide potential suitable habitat, and therefore a mist net survey was conducted by Environmental Solutions and Innovations, Inc. on June 2-5, 2012. Two sites were selected and surveyed. Twenty bats representing two species were captured during the survey. No endangered bats were captured. Netting provided no evidence that federally endangered bats use the project area during the summer. Due to the lack of endangered bat captures during the mist netting, the report concluded that the project will not likely affect federally endangered bats and that trees within the project area may be removed at any time, regardless of the season.

In addition, USFWS requested a survey for the federally threatened Virginia spiraea (*Spiraea virginiana*) within the area of the sewer outfall line. The project

area was reviewed by Mr. Douglas Odle, an approved surveyor that has conducted extensive field work in the project vicinity. A letter detailing his review is enclosed in Appendix F. 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, it is the USFWS’s opinion that the Virginia spiraea does not currently occur at the project site and therefore, the project is not likely to adversely affect this species. This determination is valid for two years.

No T/E species have been identified to exist within the project area and therefore, the proposed project is not anticipated to have any impacts on threatened and endangered species.

To protect the critical habitats of all wildlife and biological resources and the surrounding environment, an erosion and sediment control plan, as described in the Virginia Erosion and Sediment Control Handbook, 1992, Virginia Department of Conservation and Recreation, will be developed, approved, and implemented prior to any construction activity. Emergent vegetation adjacent to the creek will be protected. The minimization of vegetation disturbance and mechanical disturbance of the soil, maintaining suitable vegetation on erodible surfaces and the least possible change in slope is recommended. Drainage patterns and stream channel sizes in the right-of-way will be kept as natural as possible to further minimize erosion and sedimentation and to ensure normal infiltration rates and groundwater recharge.

The No Action Alternative would have no impact on T/E species as none are known to currently exist in the project area.

3.6 Terrestrial Resources

The project area consists of approximately 107 acres of previously undeveloped land. An evaluation of the forested habitat likely to be removed by the construction of the proposed project was performed by D.R. Allen & Associates, P.C. The evaluation documented land use, existing vegetation and ecological community groups (Appendix D).

According to this report, approximately 80 percent of the project area is forested. Approximately 37 acres of the forested area were logged in the summer of 2011. The logging operation appeared to have been aimed at only thinning the stand by cutting the high quality timber. During the site survey, terrestrial vegetation of the Low Elevation Dry and Dry-Mesic Forests and Woodlands Ecological Class were observed. These habitats include ecological community groups with distributions centered below 3500 feet elevation and representing xerophytic to submesophytic forest and woodland vegetation mesophytic to submesophytic forest vegetation. One dominant community group, Montane Mixed Oak and

Oak-Hickory Forest was observed. A complete listing of identified species present is included in the forest habitat evaluation.

Project activities will include the disturbance 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.

In addition to numerous plant species, the project area provides suitable habitat for various species of birds, terrestrial mammals, amphibians, reptiles, and aquatic and terrestrial invertebrates. While project activities may result in potential habitat reduction for some of these wildlife species, the surrounding environment provides ample space and resources, including food, water and cover, to allow for the survival of any wildlife species.

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

3.7 Aquatic Resources and Water Quality

Surface waters within the County are provided in the form of rivers, streams and lakes. The project area is located in the Big Sandy Subbasin, Hydrologic Unit code 05070202 in VAS-Q14R, the Cranesnest River watershed, classified as Section 4, Class IV, mountainous zones waters in the Virginia Water Quality Standards. The Cranesnest River is adjacent to the project area and is listed as impaired for the Recreation Use due to bacteria levels. Lack or inadequacies of sewage treatment facilities and acid mine drainage and have contributed to degraded water quality. Groundwater supplies within the County have been seriously degraded by years of coal mining operations which have destroyed the underground aquifers. Potable water is provided throughout the County by a regional water treatment plant on the John W. Flannagan Reservoir.

Most of the streams in Dickenson County are considered as warm water streams and are used for recreational fishing. Numerous sport fish are found in these streams. The proposed project is not anticipated to have any impacts on the fishery of the project area.

As discussed in Section 3.3, impacts to streams and wetlands are unavoidable. Stream impacts were evaluated and presented to the USACE and DEQ for Jurisdictional Determination (JD). The JD identified temporary impacts to 275 linear feet of stream and 126 square feet of wetland (0.003 acre) from the utility line installation and 220 linear feet of anticipated sediment accumulation. A conceptual mitigation plan is in place to perform 850 linear feet of perennial stream restoration and 770 linear feet of riparian buffer enhancement in Spring

Fork at the Ervinton High School site upon demolition of that facility. Additionally, 800 linear feet of intermittent stream enhancement will be completed in an unnamed tributary to Long Fork. The 2,420 linear feet of stream mitigation work will provide 1,756 compensation credits as determined by application of the USM. The applicant proposes to 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.

A USACE 404 IP has been submitted to the USACE and a VWPP will be required. Copies of the JD and 404 IP are enclosed in Appendix F.

The package wastewater treatment plant will treat all sewer waste generated at the school. The effluent will then be discharged into a leachate field terminating at the Cranes Nest River. A National Pollutant Discharge Elimination System (NPDES) permit has been approved by DEQ for the wastewater discharge.

The Virginia Department of Environmental Quality was contacted for comment on the proposed project. A copy of DEQ's response is enclosed in Exhibit E. DEQ fully supports the proposed project and has no objections to the project provided that the applicant abides by all applicable state, Federal, and local laws and regulations. Prior to construction, all permits and approvals must be obtained. DEQ does not anticipate long-term impacts to the water quality of the project area. However, potential short-term adverse impacts resulting from surface runoff must be minimized using Best Management Practices.

Strict erosion and sediment control measures, as outlined in the Virginia Erosion and Sediment Control Handbook, are critical to water protection. Strict adherence to best management and construction practices must be maintained in order to protect all streams in the project area from impairments due to sediment. For unavoidable impacts, DEQ encourages the following practices to minimize impacts to wetlands and waterways: the operation of machinery and construction vehicles outside of streambeds and wetlands, the use of directional drilling from upland locations for the installation of utilities, and the use of synthetic mats when in-stream work is unavoidable. In areas where directional drilling is not feasible, DEQ recommends that trench backfill consist of the original material removed. The top twelve inches of trench material removed from wetlands will be stockpiled on mats or filter cloth for final placement as wetland seed and rootstock in the excavated area. The use of herbicides and pesticides during construction or for landscape maintenance will 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. The use of these chemicals near waterways will be avoided and the use of petroleum products, other chemicals or other hazardous materials will be carefully monitored.

The No Action Alternative would not result in any changes to the water quality or aquatic resources of the project area.

3.8 Coastal Resources

There are no coastal resources located within Dickenson County, Virginia.

Neither the proposed project nor the No Action Alternative will have any impacts on coastal resources.

3.9 Socio-Economic / Environmental Justice Issues

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 in 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%. Less than 65% of persons over the age of 25 are high school graduates and less than 9% of residents have a bachelor's degree or higher.

The proposed project will be highly beneficial to the residents of Dickenson County, including low to moderate income individuals. The new high school, middle school, and career technical school will allow the school system to offer additional curriculum, improving educational opportunities to each and every student. The new schools will be beneficial to all of the students of the County, regardless of race, ethnicity, or income. Both the students and staff will benefit from the new improved facilities in a safe learning environment.

One house that is currently vacant has voluntarily accepted to be acquired and demolished. One parcel of property was acquired through condemnation, however, no households will be displaced or demolished. Construction of the school 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. It is also not anticipated to have a disproportionate effect on LMI communities.

Efforts have been and will continue to be made to encourage public participation in the project. Public notices and public meetings will be advertised, in order to promote community involvement.

The No Action Alternative would result in the continuation of structures being subjected to periodic flood damage, resulting in adverse social and economic impacts.

3.10 Air Quality

The USEPA is required to set air quality standards for pollutants considered harmful to public health and welfare. The 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 have been established for the following six principal pollutants, called criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide.

Dickenson County is located in an area of the Commonwealth which is considered to be in attainment with the National Ambient Air Quality Standards (NAAQS). Project construction will require the use of fossil-fuel burning equipment, possibly including excavators, dump trucks, pan scrapers, and bulldozers. Preparation of the site for construction, or earthwork, will provide 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.

After completion of the project, increased traffic in the project area will generate a slight increase in vehicle emissions. However, emissions in the areas of the demolished schools will likely decrease. The wastewater treatment plant has been located away from the main school facilities and in a manner that prevailing wind currents will carry any associated odors away from the school facilities and adjacent residential structures. Previous reports of sulfur-like odors from nearby mining operations have not been detected on the site.

The Department of Environmental Quality was contacted for comment on the proposed project. A copy of DEQ's response is enclosed in Exhibit F. According to DEQ, the project should not adversely affect air quality. The use of fossil-fuel burning equipment will produce normal engine exhaust, a by-product of gasoline and diesel fuel combustion. Such emissions are state- and federally-regulated. Normal engine emissions occur every day and are dissipated into the atmosphere at acceptable quality levels. The emissions produced as part of construction activities are not unusual events, and will not have any adverse impact upon air quality. Completed project activities will not generate any air emissions.

During construction, measures must 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, should be implemented. All land clearing debris should be disposed of in an approved manner.

The No Action Alternative would not involve any construction related air emissions and therefore would have no impacts to air quality.

3.11 Noise

Noise is defined as an undesirable or unwanted sound. There is no federal standard for allowable noise levels. During project construction, some nuisance levels may be produced by the engines of construction equipment representing short-term negative impacts. Equipment necessary to prepare the site will likely include excavators, dump trucks, pans, and bulldozers. Equipment necessary for demolition will likely include bulldozers, excavators, cranes and dump trucks.

Contractors will be encouraged to use noise control devices and all activities will be limited to normal daylight hours only.

It is anticipated that blasting will be required on the project to facilitate rock removal for grading activities. The majority of the blasting will most likely be located in the vicinity of the proposed tennis courts. Additionally, less minor blasting may be required in the vicinity of the football stadium. The contractor for the project will be required to store and use explosives in accordance with all applicable federal and state regulations. The contractor will also be responsible for and will satisfactorily correct all damage resulting from the use of explosives.

The noise levels produced will not be at any health-endangering thresholds. Vegetation and steep changes in elevation may serve as a buffer to reduce sound levels. The majority of the construction work will take place at a moderate distance from most residential structures. Once the project is completed, day-to-day operations of the school will produce some noise levels, primarily traffic and building operations. These levels are not expected to exceed acceptable levels. In turn, noise levels at the schools slated for demolition will decrease.

The No Action Alternative would not result in any noise impacts.

3.12 Transportation

The area's highway system corresponds directly to the area's natural features. Three major state roads connect to serve the project area, State Routes 63, 80, and

83. Rail transportation is provided by CSX Transportation and Norfolk Southern Railway System.

The proposed project will have minor impacts on the transportation network of the project area. Specifically, completed project activities will increase the volume of traffic from Route 83 along Rose Ridge Road (Rt. 637) to the entrance of the school campus. Project construction activities will add limited tractor-trailer and delivery vehicle traffic to these roads. This traffic loading will be short-term and should not have any adverse impact on the transportation network. Construction along roadways will require some flagging of traffic, however, road closures will be limited. All permits will be obtained prior to construction. Road improvements along Rt. 637 will be necessary to improve traffic flow and for bus safety. Proposed improvements include spot widening and curve straightening. All improvements necessary to meet VDOT standards will be implemented.

The No Action Alternative would not result in any changes to the transportation network of the project area.

3.13 Aesthetics

Typical of the majority of the County, the construction site lies within an undeveloped area with few residential homes. In addition to homes, a water storage tank is located on the highest ridge within the community. The buildings slated for demolition are located in similar surroundings.

During construction and demolition, heavy equipment will be utilized and left on site. Therefore, the aesthetic quality of the area will be temporarily affected by the equipment.

There would be no aesthetic impacts as a result of the No Action Alternative.

3.14 Hazardous, Toxic and Radioactive Waste (HTRW)

Hazardous, Toxic and Radioactive Waste have been evaluated at the construction site and at all demolition sites. Phase I Environmental Site Assessments were performed by The Lane Group, Inc. in accordance with ASTM 1527-05. This assessment 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 site. In addition, activities on or near the site, which might result in environmental contamination, were reviewed. Environmental regulatory information concerning the subject property and nearby properties was also reviewed. Copies of both Phase I HTRW reports are enclosed in Appendix H.

The Phase I HTRW on the high school campus site identified the following issues:

- Due to the number of “junk cars” on the property, the probability of uncovering old batteries is likely. While no batteries were observed during the field investigation, there is a possibility that some may have been improperly disposed of on the property.
- Several apparently empty bottles of motor oil have been carelessly discarded in various locations on the subject property. This indicates that the property has been used on more than one occasion for the purpose of oil changes. No areas of stained soil were observed. There is no way to determine how often or regularly this occurred, but these are indicators of past uses of petroleum products onsite.
- Drum containers were observed in several locations of the property, including out in the open and within the sheds and barn. None of the barrels were observed to contain any kind of liquid nor was there any evidence of spillage, leakage, or past releases to the environment. The majority of the drums were so rusted and/or disintegrating that no identifying labels or markings were observed.
- The amount of solid waste in the form of car parts, scrap metal, tires, wood scraps, etc. is substantial. While nothing hazardous was observed, the piles of refuse pose a risk of unknown discoveries. All of the waste will need to be properly disposed of in accordance with all applicable federal, state, and local environmental regulations. Any hazardous waste identified during this removal must be properly managed.

Since completion of the HTRW, the “junk cars” have been removed from the property and the majority of the solid waste and litter removed. No known hazards were reported.

The Phase I HTRW on the demolition sites identified the following issues:

- Lead-based Paint –Samples collected from the Annex Buildings at Haysi High School did test positive for LBP. Asbestos-containing materials –ACM were positively identified at all four locations. All appropriate engineering controls should be utilized to remove the ACM prior to demolition. ACM must be disposed of in accordance with all federal, state, and local rules and regulations.
- Due to the presence of an old County dump upgradient of the Clincho Elementary School, it is recommended that the groundwater table at a depth of approximately 11 feet not be disturbed.
- Three above ground storage tanks are located in the Annex Buildings area of Haysi High School. Prior to disturbance, all measures to comply with federal, state and local regulations regarding tank closure and removal must be followed. Any identified contamination will require remediation.
- The possibility exists that an old septic tank is still buried between the Parent Resource Center and the Woodshop/Welding Building. If uncovered during

demolition activities, the tank should be pumped if necessary prior to removal and disposal.

The Corps procedure to deal with removal of asbestos containing materials is consistent with all local, state, and federal laws. Prior to demolition, all asbestos will be removed by a certified asbestos removal contractor, with the ACM bagged and disposed of in an approved landfill. In addition, the paint from the demolition buildings is subject to the Toxic Substance Control Act. Demolition workers should be adequately trained to comply with all appropriate health and safety, handling and disposal conditions.

The proposed project will provide a measure of protection from HTRW concerns by removal of potential sources.

No impacts to hazardous contaminants would occur as a result of the No Action Alternative.

3.15 Cumulative Effects

The proposed project will have significant beneficial secondary and cumulative long-term impacts to the project area. The removal of unsafe structures is a significant positive impact. The construction of new schools will provide additional educational opportunities.

3.16 Coordination

3.16.1 Public Involvement

The County has notified affected property owners of the proposed project and several public hearings have been held to discuss the proposed project. A public hearing to address environmental issues was held on April 6, 2011.

This Environmental Assessment will be made available to environmental resource agencies, groups, and individuals for a thirty (30) day review period as required by the National Environmental Policy Act.

3.16.2 Resource Agency Coordination

Coordination with the following federal, state, and local agencies has taken place throughout the preparation of this report: United States Army Corps of Engineers, United States Fish and Wildlife Service, Virginia Department of Conservation and Recreation, Virginia Department of Environmental Quality, Virginia Department of Game and Inland Fisheries, Virginia Department of Historic Resources, and Virginia Department of Transportation.

The Virginia Department of Conservation and Recreation and the U.S. Fish and Wildlife Service have been consulted to comply with the Endangered Species Act and the Fish and Wildlife Coordination Act.

A Phase I Cultural Resources survey for the proposed project has been completed. The final report was submitted to the Virginia Department of Historic Resources on August 26, 2012. No properties eligible for inclusion in the National Register of Historic Places were identified.

Phase I HTRW analyses were performed on both the high school campus and all demolition sites. These reports were reviewed by the Hazardous, Toxic and Radioactive Wastes Section of the USACE, Huntington District. Asbestos containing materials and lead based paint must be properly removed and disposed of in accordance with all federal, state, and local regulations.

Consultation with NRCS took place to determine the impacts to Prime Farmland. 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.

The schools slated for demolition lie within active floodplains and are identified flood zones according to FEMA mapping. Removal of the existing buildings from the floodplain by demolition will result in reduced hazards for the students and staff. The floodplain will be restored to allow it to function more effectively in these areas. Removal of these buildings also offers compliance with Executive Order 11988 which requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

To comply with Executive Order 11990: Protection of Wetlands, all waters of the U.S. within the project area were investigated and delineated during field investigations. These delineations were verified by the USACE and DEQ. A conceptual mitigation plan is in place for unavoidable impacts resulting in wetlands and streams loss. A 404 IP has been submitted to the USACE and a VWWP will be prepared.

3.16.3 Required Permits/Certifications

The project's sponsor will be required to obtain the appropriate permits from various agencies in order to construct the proposed project. The required permits and the agencies that are responsible for issuing these permits are listed:

- Virginia Water Protection Permit – DEQ
- Erosion and Sediment Control Permit – Dickenson County
- NPDES Permit – DEQ

- Stormwater Permit – DCR
- 404 Individual Permit – USACE
- Virginia Marine Resources Commission Individual Permit – VMRC

All necessary permits will be obtained prior to any construction activity.

SECTION 4

CONCLUSIONS

The proposed project and the No Action Alternative were evaluated for anticipated impacts to environmental resources within the project area. Table 1 summarizes the anticipated impacts.

Table 1. Summary of Anticipated Impacts to Environmental Resources

Resource	Proposed Project	No Action Alternative
Land Use / Important Farmland	No	No
Floodplains	Positive Impacts	Negative Impacts
Wetlands	2,003 ac.*	No
Cultural Resources	No	No
Threatened and Endangered Species	No	No
Terrestrial Resources	No	No
Aquatic Resources and Water Quality	2,025 L.F.*	No
Coastal Resources	No	No
Socio-Economic / Environmental Justice Issues	Positive Impacts	Negative Impacts
Air Quality	Temporary Impacts	No
Noise	Temporary Impacts	No
Transportation	Minimal Impacts	No
Aesthetics	Temporary Impacts	No
Hazardous, Toxic, and Radioactive Waste	Positive Impacts	No

* A conceptual mitigation plan is in place for stream and wetland losses.

The proposed project will provide the residents of Dickenson County with a safe learning environment for their children and future generations. The new schools will not only offer new educational opportunities for students but will also remove risks associated with the existing flood prone buildings.

Minimal impacts to environmental resources will occur as a result of the proposed project. Temporary impacts to aesthetics, air quality, and noise will occur during the construction phases of the project. Completed project activities will increase the volume of traffic along Route 637 from Route 83 to the entrance of the school campus. The total proposed impacts to WOUS from the project, temporary and permanent, are approximately 2,025 linear feet of stream channel and 2.003 acres of wetlands. A conceptual mitigation plan has been developed and is currently being reviewed by the USACE Norfolk District.

No impacts to threatened and endangered species are anticipated. There are no known archeological, cultural or historic resources that will be impacted by the proposed project.

The conclusion of the assessment is that the proposed project will not result in significant long or short-term adverse impacts to resources within the study area.

SECTION 5

APPENDICES / MAPS

The following information is included in Appendices A – H:

Appendix A – USACE Huntington District, Section 202 General Plan Nonstructural Project Appendix V. Dickenson County, Virginia Levisa Fork Basin. Volume 1. Detailed Project Report. July 2003.

Appendix B – Maps including general vicinity maps and floodplain maps.

Appendix C – New Dickenson County Schools Campus Alternatives Analysis. May 2011.

Appendix D – Forest Habitat Evaluation. Dickenson County Schools – New Consolidated Campus. April 6, 2012.

Appendix E – Correspondences Concerning Environmental Resources.

Appendix F – Consolidated Campus Jurisdictional Waters of the U.S. Delineation. March 2012.
School Demolition and Road Improvements Jurisdictional Waters of the U.S. Delineation. May 2012.
DCPS New Consolidated Campus Joint Permit Application. June 2012.

Appendix G – Rose Ridge School Construction Project, Dickenson County, Virginia. Phase I Intensive Cultural Resources Survey. 2012.

Appendix H – Phase I Environmental Site Assessment (HTRW Study). New Dickenson County Consolidated Schools Campus. Revised August 2012.

Phase I Environmental Site Assessment (HTRW Study). Demolition of Existing Dickenson County Schools Subject to Flood Damage. Revised August 2012.

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