



Environmental Assessment

## **Richwood Middle School and Richwood High School**

Richwood, Nicholas County, West Virginia  
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# FEMA

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## List of Acronyms and Abbreviations

|  |  |
|--|--|
| AMT – A. Morton Thomas and Associates            | NPDES – National Pollutant Discharge Elimination System                        |
| APE – Area of Potential Effect                   | NLEB – Northern Long-eared Bat   |
| ASTM – American Standard Testing Method          | NRCS – Natural Resources Conservation Service                                  |
| BFE – Base Flood Elevation                       | NRHP – National Register of Historic Places                                    |
| BMP – Best Management Practice                   | NWI – National Wetlands Inventory  |
| CAA – Clean Air Act                              | NWP – Nationwide Permit  |
| CEQ – Council on Environmental Quality           | O <sub>3</sub> – Ozone   |
| CFR – Code of Federal Regulations                | OSHA – Occupational Safety and Health Administration                           |
| CO – Carbon monoxide                             | PA – Public Assistance   |
| CWA – Clean Water Act                            | Pb – Lead  |
| DAQ – Division of Air Quality                    | PM <sub>2.5</sub> & PM <sub>10</sub> – Particulate Matter                      |
| EA – Environmental Assessment                    | SBA – School Building Authority  |
| EDR – Environmental Data Resources               | SFHA – Special Flood Hazard Area   |
| EIS – Environmental Impact Statement             | SO <sub>2</sub> – Sulfur Dioxide   |
| EO – Executive Order                             | THPO – Tribal Historic Preservation Office                                     |
| EPA – Environmental Protection Agency            | TMDL – Total Maximum Daily Load  |
| ESA – Environmental Site Assessment              | VOCs – Volatile Organic Compounds  |
| FEMA – Federal Emergency Management Agency       | USACE – United States Army Corps of Engineers                                  |
| FIRM – Flood Insurance Rate Map                  | USFWS – United States Fish and Wildlife Service                                |
| FONSI – Finding of No Significant Impact         | USGS – United States Geologic Survey   |
| FPL – Federal Poverty Level                      | VOC – Volatile Organic Compounds   |
| FPPA – Farmland Protection Policy Act            | WVDE – West Virginia Department of Education                                   |
| HPI – Historic Property Inventory                | WVDEP – West Virginia Department of Environmental Protection                   |
| IPaC – Information for Planning and Conservation | WVDHSEM – West Virginia Division of Homeland Security and Emergency Management |
| LOD – Limit of Disturbance                       | WVDOH – West Virginia Division of Highways                                     |
| MOA – Memorandum of Agreement                    | WVDOT – West Virginia Department of Transportation                             |
| NCA – Noise Control Act of 1972                  | ZMM – ZMM Architects & Engineers   |
| NCBOE – Nicholas County Board of Education       |  |
| NEPA – National Environmental Policy Act         |  |
| NFIP – National Flood Insurance Program          |  |
| NGVD – National Geodetic Vertical Datum          |  |
| NHPA – National Historic Preservation Act        |  |
| NO <sub>2</sub> – Nitrogen Dioxide               |  |

## **SECTION ONE: BACKGROUND**

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### **1.1 Project Authority**

The School Building Authority (SBA) in conjunction with the Nicholas County Board of Education (NCBOE) as a client, has applied through the West Virginia Division of Homeland Security and Emergency Management (WVDHSEM) to the Federal Emergency Management Agency (FEMA) Public Assistance (PA) Grant Program for funding assistance, under the Presidentially Declared Disaster FEMA-4273-DR-WV, for the replacement of Richwood Middle and High School. In accordance with FEMA Directive 108-1 and FEMA Instruction 108-1-1, this Environmental Assessment (EA) is being prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ) in 40 Code of Federal Regulations (CFR) Parts 1500-1508. The purpose of the EA is to analyze the potential environmental impacts of the proposed project, and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

### **1.2 Location**

The project location is within the City of Richwood, West Virginia. According to the United States Census Bureau 2017 Population Estimate, the City of Richwood has a population of 1,906 predominantly middle-class, English-speaking households. Richwood is in the eastern region of Nicholas County in central West Virginia. Geographically, Richwood is located approximately 30 miles north of Lewisburg and approximately 15 miles east of Summersville. The area of the City is approximately 1.67 square miles. A general location map of Richwood is included in **Appendix A**.

### **1.3 Purpose and Need**

According to the United States Geological Survey (USGS), central West Virginia experienced intense convection storms along a stationary front on June 23, 2016. The stationary movement of the storms led many areas to receive up to 10 inches of rainfall within 24 hours, producing a 1,000-year storm event. The intense rainfall resulted in widespread flash flooding crippling the state with substantial damage to residences, commercial buildings, and public infrastructure. The areas that were impacted the greatest were primarily in the Greenbrier, Elk, and Gauley River watersheds (USGS, 2016). In Nicholas County, the Gauley River watershed includes the communities of Summersville and Richwood, which were both significantly impacted by the flood event.

Statewide, floodwaters damaged more than two dozen schools in 10 counties, including three schools in the Gauley River Watershed of Nicholas County: Summersville Middle School, Richwood Middle School, and Richwood High School. These three schools were determined to be substantially damaged and, as such, were deemed eligible for replacement under the FEMA PA grant program.

Due to the severity of the damage, an agreement between FEMA, NCBOE, and the WWSBA was signed for the reconstruction of the three damaged schools at a total combined cost of \$178

million under the Sandy Recovery Improvement Act of 2013 (SRIA). SRIA was implemented by President Barack Obama as a legislative modification to change the flexibility of how FEMA can allocate Federal funding for Federal disaster assistance to survivors. Specifically, the law adds Section 428, which authorizes alternative procedures for the PA program under sections 403(a)(3)(A), 406, 407 and 502(a)(5) of the Stafford Act. Section 428 goals include reducing the costs to the Federal Government of providing Public Assistance, increasing flexibility in the administration of such assistance, expediting the provision of assistance to a State, tribal or local government, or nonprofit owner or operator of a private nonprofit facility and providing financial incentives and disincentives for timely and cost-effective completion of projects with such assistance. On September 4, 2018, WVSBA, NCBOE, WVDHSEM, and FEMA signed the Nicholas County Alternative Procedures Pilot Program Section 428 Agreement, which accepted a fixed estimate in the amount of \$177,513,528. A portion of this funding will be used for the redevelopment of Richwood Middle and Richwood High School, while the remaining funds will be used for the redevelopment of Summersville Middle School. This undertaking is addressed under a separate EA. The subject EA addresses the replacement of Richwood Middle and Richwood High School only and does not address Summersville Middle School.

Due to the location of the damaged original Richwood Middle School and Richwood High School buildings within floodway, reconstruction of the schools on the original site would not alleviate risk from future flood events. Therefore, FEMA proposes to fund the replacement of the original Richwood Middle School and Richwood High School with a new school facility at a location outside of the Special Flood Hazard Area (SFHA). The new schools are needed to provide middle and high school classroom education in the City of Richwood by providing permanent facilities that are safe, accessible, and meet all applicable codes and standards.

In accordance with federal laws and FEMA regulations, the EA process for a proposed federal action must include an evaluation of viable alternatives and a discussion of the potential environmental impacts. This EA was prepared in accordance with NEPA, 40 CFR Parts 1500-1508, and FEMA's implementing procedures for NEPA, including those in FEMA Instruction 108-1-1. As part of this NEPA review, the requirements of other environmental laws and executive orders were evaluated.

#### **1.4 Existing Facility**

For most of the 2017 school year, the approximately 650 students of the original Richwood Middle School and Richwood High School attended class at Cherry River Elementary School, located at 190 Riverside Drive, Richwood, West Virginia. In 2017, portable classroom buildings were installed at Cherry River Elementary School to accommodate an increased number of students associated with the original Richwood Middle School and Richwood High School. Richwood Middle School and Richwood High School have continued to operate out of the temporary facilities, consisting of eight mobile units, and intend to do so until a permanent facility is established. During this time the damaged original Richwood Middle School and Richwood High School buildings, located at 1 Valley Avenue, Richwood, West Virginia, were demolished. Maps depicting the location of the original Richwood Middle School and Richwood High School and the location of Cherry River Elementary School are included in **Appendix A**.

## **SECTION TWO: ALTERNATIVE ANALYSIS**

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To determine a path forward for Richwood Middle School and Richwood High School following the 2016 flood event, several options were evaluated including no action, new development offsite, and redevelopment on-site. Focus was placed on finding an alternative location that would allow for new development outside of the SFHA. Selection of possible site locations was pursuant to West Virginia Department of Education (WVDE) Policy 6200, which provides a comprehensive outline of considerations for site selection. The selection process required the cooperative effort of the county board, central office and school staff, planning committee, architect, and legal consultants. NCBOE solicited community involvement through meetings, local news outlets, and correspondence with community officials. Site selection criteria included, but was not limited to, development costs, availability of utilities, transportation and access to main transportation routes, attendance demographics, highways, distance, traffic congestion, potential exposure to flood risk, potential impacts to the human environment, proximity to hazardous contaminants, proximity to utility transmission lines, and acreage.

### **2.1 Alternative 1 – No Action**

Under the No Action Alternative, redevelopment of the original Richwood Middle School and Richwood High School would not be conducted. The students would continue to attend school in portable classrooms located at Cherry River Elementary School. The former Richwood Middle School and Richwood High School were demolished in 2017 and the site would be retained as open space in perpetuity, with the addition of a memorial walking trail.

### **2.2 Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)**

Under the Proposed Action Alternative, Richwood Middle School and Richwood High School would be relocated to an area that would allow for construction of new facilities at a higher elevation outside of the SFHA with sufficient acreage to accommodate facility requirements associated with enrollment. After an extensive site selection process, the Cherry River Elementary School site was selected as the most viable property for potential offsite design, as it meets the specifications pursuant to WVDE Policy 6200. The site location map detailing the proposed site layout is provided in **Appendix A**. The site location is 190 Riverside Drive, Richwood, West Virginia. The proposed site is a multiple-parcel tract that is currently used as an educational facility with associated parking and a playground adjacent to the current structure.

The Cherry River Elementary School site is large enough to accommodate the three student age groups at one combined campus, with the building totaling 119,778 square feet. Accessory structures would include a 30,000-gallon Fire Water Storage Tank and a Pump House. The site location is approximately 1.5 miles west of the former school locations and is within the city limits of Richwood. Site development at this location would have minimal impacts to aquatic features and would require limited tree removal. The current proposed layout is indicated in **Appendix A** and would impact approximately 7.8 acres of the 9.7-acre site. The existing school property is approximately 7 acres and an additional 2.7 acres would be acquired prior to development.

It is anticipated that earth-moving, heavy equipment would be utilized for construction activities. These include but are not limited to: excavators for material handling, trenching, rough grading, and heavy lifting; backhoe loaders for digging and minor grading; bulldozers for earth moving grading activities; skid-steer loaders for moving material throughout the jobsite; trenchers for connecting to existing utilities; and common dump trucks for transporting large amounts of material throughout the jobsite. Precise construction and staging areas would be outlined in the final design. The construction would be completed in a phased approach, with the students using the temporary classrooms during Phase 1 & 2, and then using the Phase 1 & 2 buildings during Phase 3.

Coordinates for the center of the subject property are 38.218939 latitude, -80.553567 longitude as noted in the map provided in **Appendix A**. A street map depicting the subject property and property boundary map with Limits of Disturbance (LOD) are represented in **Appendix A**.

### **2.3 Alternative 3 – Redevelopment of Richwood Middle and High School**

Under the Reconstruction Alternative, redevelopment would occur on the former sites of Richwood Middle School and Richwood High School. The Collins Hardwood property located north of the schools at 6 River Road, would be acquired for additional acreage. The location of the former schools and the Collins Hardwood property are in the SFHA and have been subject to repetitive flooding. The sites are flat-to-gently- sloping and characterized as developed land, currently vacant without any structures. The site consists of approximately 4.54 acres adjacent to the former track and field/football stadium. Coordinates for the center of the subject property are 38.223367 latitude, -80.529431 longitude, as noted in the map provided in **Appendix A**.

Prior to development, the site would be elevated above the Base Flood Elevation (BFE), according National Flood Insurance Program (NFIP) regulations and local floodplain ordinances, utilizing soil from an offsite location. The design would accommodate population needs and allow students to have a permanent learning facility. The subject property has been retained by NCBOE following the demolition of the damaged schools and includes existing utility connections that could be used to accommodate a new facility. As the redevelopment would take place largely within the footprint of the damaged facility, there would be minimal impacts anticipated to environmental and cultural resources.

### **2.4 Alternatives Considered and Eliminated from Further Consideration**

Several locations were evaluated during the relocation site selection process conducted by ZMM Architects & Engineers (ZMM) and one location met most, but not all, requirements outlined in the WVDE Policy 6200. The following property was dismissed due to location (outside city limits), preliminary cost analysis (rezoning property to be within school system), and site access for school buses. The NCBOE Site Selection Narrative, attached in **Appendix B**, is available for further information.

#### **Dillard Property**

The Dillard Property is located at 12 Chestnut Street, Richwood, West Virginia. The site consists of multiple parcels totaling approximately 122 acres and is primarily undeveloped forested hillsides with minor flat meadows. Coordinates for the center of the subject property are

38.216901 latitude, -80.551502 longitude. The property was dismissed due to majority of the site being located outside city limits and the need for additional properties to create roads and access points for utilities. There is also an issue of road grade required for school buses. A grade of 6% is required with the existing road being approximately 19% grade.

## **SECTION THREE: AFFECTED ENVIRONMENT AND CONSEQUENCES**

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### **3.1 Physical Environment**

#### **3.1.1 Geology, Seismicity and Soils**

The Town of Richwood is located entirely within the Appalachian Plateau Province of West Virginia, predominantly in the New River Formation of the Pennsylvanian Age System. These rocks generally consist of sandstone, with some shale, siltstone, and coal. Regionally, the city is located within Quaternary Alluvium associated with the Cherry River, consisting of unconsolidated alluvial deposits of sand, gravel, silt, and clay. The Natural Resources Conservation Service (NRCS) Web Soil Survey (**Appendix B**) was consulted for detailed soil information. While the general soil association varies throughout the city, the dominant soil types are listed below:

- **Buchanan Gravelly Sandy Loams, (15-35% Slope)** – These soils are extremely stony, not prime farmland, moderately well drained, with parent material consisting of acid fine-loamy colluvium derived from sandstone, siltstone, mountain slopes, and hillslopes.
- **Clifftop Channery Silt Loams, (3-35% Slope)** – These soils are farmland of statewide importance, well drained, with parent material consisting of acid, Pottsville group fine-loamy residuum weathered from shale and siltstone mountaintops.
- **Clifftop-Buchanan Complex, (35-70% Slope)** – These soils are not prime farmland, well drained, with parent material consisting of acid fine-loamy residuum over Pottsville group shale and siltstone, upper third of mountain flank.
- **Udorthents (Ud) (smoothed, 0-2% Slope)** – These soils are not prime farmland, cut and fill material, with parent material consisting of spread deposits derived from interbedded sedimentary rock.

The Farmland Protection Policy Act (FPPA – Public Law 97-98, 7 U.S.C. 4201) is intended to minimize the extent to which federal programs unnecessarily and irreversibly convert farmland to nonagricultural uses. Implementing procedures included in associated regulations found in Title 7 of the Code of Federal Regulations, Section 658, established the farmland conversion impact rating system to evaluate the impacts Federal programs have on the conversion of farmland to nonagricultural uses. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are implemented or assisted by a Federal agency.

Seismic activity in the Central Plateau region of West Virginia is negligible because the area is not tectonically active (USGS Seismic Hazards Map). Therefore, seismic concerns for all the alternatives are relatively low and will not be discussed further in this assessment.

### ***Alternative 1 – No Action***

The elevation of the site ranges from approximately 2,180.45 to 2,200 feet National Geodetic Vertical Datum (NGVD). Local topography indicates that drainage in this area is accomplished by minor infiltration and surface run-off towards Cherry River, while most site drainage is managed by man-man storm drains and drains to the Cherry River. Per the NRCS Web Soil Survey (**Appendix B**), the general soil association for the subject property is comprised of Buchanan gravelly sandy loams, Cotaco Silt Loam, and Udorthents. Under the No Action Alternative there would be no impacts to geology or soils. Normal geomorphological erosional processes would occur on a long-term basis. The Alternative 1 base map in **Appendix A** is the USGS WV, 7.5-minute topographic Richwood quadrangle. There would be no FPPA compliance requirements at the site.

### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The elevation of the proposed site ranges from approximately 2,180.45 to 2,200 feet NGVD. Local topography indicates that drainage in this area is accomplished by minor infiltration and surface run-off towards Cherry River, while most site drainage is managed by man-man storm drains and drains to the Cherry River. The Alternative 2 base map in **Appendix A** is the USGS WV, 7.5-minute topographic Richwood quadrangle.

The NRCS Web Soil Survey (**Appendix B**) of the subject property was consulted for soil information. The general soil association for the subject property is comprised of Buchanan gravelly sandy loams, Cotaco Silt Loam, and Udorthents.

- **Buchanan (BvC) Gravelly Sandy Loam, (8-15% slopes)** – These soils are not prime farmland, moderately well drained, and acid fine-loamy colluvium derived from sandstone and siltstone. Located on mountain slopes.
- **Buchanan (BvE) Gravelly Sandy Loam, (15-35% slopes)** – These soils are not prime farmland, moderately well drained, and acid fine-loamy colluvium derived from sandstone and siltstone. Located on mountain slopes.
- **Cotaco (CtB) Silt Loam, (3-8% slopes)** – These soils are farmland of statewide importance, moderately well drained, with moderate permeability and porosity. Alluvium derived from sandstone and siltstone.
- **Udorthents (Ud) (0-6% slopes)** – These soils are not prime farmland, cut and fill material, with parent material consisting of earth spread deposits derived from interbedded sedimentary rock.

According to the Preliminary Geotechnical Report conducted by TERRADON Corporation, dated December 2018, the subject property consists of fill transitioning to brown silty clay with minor sand lenses, to bedrock ranging from 25 to 41.5 feet below ground surface. Bedrock encountered generally consisted of an interbedded sandstone and shale. According to the Preliminary Geotechnical Report, the subject property requires deep foundations to bedrock. The Preliminary Geotechnical Report for Cherry River Elementary School is attached in **Appendix B** for further information.

Area soils would be moderately disturbed during short-term construction and site grading activities. Soil loss may occur directly from construction activities or indirectly via high wind or rain events. To reduce soil erosion, appropriate Best Management Practices (BMPs) would be required at the construction location and would be identified through the West Virginia Department of Environmental Protection (WVDEP) National Pollutant Discharge Elimination System (NPDES) permitting process. BMPs may include an erosion and sedimentation (E&S) control plan utilizing silt fences, re-vegetation of disturbed soils, and maintenance of site soil stockpiles during construction to prevent soils from eroding and dispersing off-site. Erosion control fiber mesh would be utilized for disturbed and seeded lawn impact areas. All short-term soil storage would not occur within floodplain areas. Most of the site is currently developed; therefore, short term disturbances are anticipated to be minimal. Approximately 0.5 acres of vegetation and tree removal would need to occur for the planned development. Approximately 15,000 cubic feet of fill would be placed below the new areas of the proposed building. The elevation of the new construction is proposed to be equal to the existing building elevation.

Moderate long-term impacts associated with drainage at the site are anticipated due to the increase in impervious surfaces which would diminish natural soil infiltration. Stormwater drainage at the proposed site would be accomplished via storm drain systems that would reroute water offsite and downstream towards the Cherry River. Excavation depths at the site would vary according to the area of grading and construction. Performance of soils, rock staging, placement, and compaction activities would be pursuant to the geotechnical recommendations from Geotechnical Report found in **Appendix B**. Provided that the recommendations made in the geotechnical report were followed entirely, minimal long-term impacts to soils and geology would be anticipated. There would be no FPPA compliance requirements due to the previous development at the site.

### ***Alternative 3 – Redevelopment of Richwood Middle School and Richwood High School***

The elevation of the center of the subject property ranges from 2,180.45 to 2,200 feet NGVD. The property is topographically flat or gently sloping. The NRCS Web Soil Survey (**Appendix B**) of the subject property shows that the general soil association is comprised of Udorthents. Due to previous development, site is impacted by a lack of natural soil infiltration and is managed through a stormwater drainage system. The Alternative 3 base map in **Appendix A** is the USGS WV, 7.5-minute topographic Richwood quadrangle.

Soil loss may occur directly from construction activities or indirectly via high wind or rain events. To reduce soil erosion, appropriate BMPs would be required at the construction location and would be identified through the WVDEP NPDES permitting process. BMPs may include an E&S control plan utilizing silt fences, re-vegetation of disturbed soils, temporary stormwater management, and maintenance of site soil stockpiles during construction to prevent soils from eroding and dispersing off-site. Erosion control fiber mesh would be utilized for disturbed and seeded lawn impact areas. All short-term soil storage would occur outside of the SFHA.

Due to the previous development, the site is impacted by a lack of natural soil infiltration and stormwater would be managed through an improved stormwater system. Although construction activities would create a moderate short-term impact to on-site soils, appropriate BMPs would mitigate effects from the elevation of the site. The site design would incorporate stabilization

techniques to minimize impacts to the added soils and increase long-term resiliency. Therefore, minimal impacts to geology or soils would be expected on a short or long-term basis. There would be no FPPA compliance requirements at the site.

### **3.1.2 Water Resources and Water Quality**

The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharges of pollutants into waters of the United States. It also establishes requirements associated with dredging and filling waters of the United States. In addition, Executive Order (EO) 11990 (Protection of Wetlands) requires Federal agencies to avoid, to the extent possible, adverse impacts to wetlands.

#### ***Alternative 1 – No Action***

Under the No Action Alternative, no adverse impacts to water resources near the former school sites would occur.

#### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The proposed site of the new school facility is in a traditional hydrogeological system; meaning that surface topography presumably is indicative of the direction of groundwater flow in the absence of manmade systems. Local topography indicates that drainage in this area is accomplished by infiltration and surface run-off to the Cherry River in the absence of manmade influences. However, the site drainage is currently being accomplished by stormwater management systems.

TERRADON Corporation performed an Aquatic Resource Report and submitted a Preliminary Jurisdictional Determination letter to the United States Army Corps of Engineers (USACE) for review in November 2018. In TERRADON Corporation's professional opinion and subject to regulatory review, the assessment identified zero Potential Jurisdictional Waters of the U.S. located on site. The subject property is adjacently located to one perennial river (Cherry River), to the north. The Cherry River has an established WVDEP total maximum daily load (TMDL) to minimize pollutants into surface waters. The Aquatic Resource Assessment Report for the subject property, dated November 2018, can be found in **Appendix B** of this report.

Per correspondence from the USACE Huntington District, dated May 28, 2019, the proposed action qualifies for Nationwide Permit (NWP) #3, for the replacement of an existing 215 linear foot, 21-inch corrugated metal storm pipe on the subject property. This pipe conveys into a Perennial Unnamed Tributary to the Cherry River along the northeastern portion of the site. As part of the construction activities, the existing pipe would need to be replaced to allow for additional egress and ingress for traffic around the building expansion. The disturbance will be limited to 300 linear feet, below the ordinary high-water mark of the unnamed tributary. The design of the project minimizes and avoids stream impacts to the maximum extent practicable. Approval of the permit is contingent upon the condition outlined in the United States Fish and Wildlife Service (USFWS) Section 7 Concurrence letter, dated March 26, 2019. Activities authorized under NWPs, by definition, have no more than minimal individual and cumulative adverse environmental effects,

according to USACE Decision Documents. The WVDEP has issued a 401 Water Quality Certification, with conditions, for this permit.

Groundwater encountered at the subject property was located approximately 15 feet below the surface. Site development activities are expected to have minimal impacts to groundwater. Groundwater flow is presumably migrating north directly to the Cherry River. According to well data information provided by Environmental Data Resources (EDR), there are not any groundwater wells near the site development that could be potentially impacted. The only groundwater well listed is located upgradient of the subject property, approximately one mile away, adjacent to Little Laurel Creek. Please find the EDR report attached in **Appendix B**.

Stormwater drainage at the proposed site would be accomplished via storm drain systems that would reroute water offsite and downstream towards the Cherry River. A Construction Stormwater General Permit and Notice of Intent is required by the WVDEP and would be submitted prior to construction activities. The project would have moderate, short-term negative impacts on surface waters during the construction process due to increased turbidity and sedimentation. The contractor would implement BMPs, as required by WVDEP permits, during construction to limit impacts to waterways. Examples of BMPs may include but are not limited to: soil erosion monitoring at the project site; temporary silt fencing; and staging of construction equipment in existing developed areas, such as paved parking lots. If project activities include stockpiling of soil or fill on-site, the contractor would cover these soils to help prevent fugitive dust from entering stormwater pathways. Following construction, any bare soils would be vegetated to prevent future soil erosion. Site development would not present significant long-term impacts to jurisdictional streams or wetlands. Long-term impacts to water resources would be negligible once the site is redeveloped.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, redevelopment of the original Richwood Middle School and Richwood High School site may have temporary short-term impacts to downstream surface waters due to potential soil erosion during construction activities. Stormwater would be managed at the site by an existing drainage system which would be modified during construction activities to meet requirements of the new development. To reduce impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fencing during construction, and revegetation of bare soils following construction. Moderate short-term and negligible long-term impacts to surface water would be anticipated, due to the site's proximity to the Cherry River and the increase of soil at the site. The project would include designs to minimize long-term erosion and transport of soil to the river. Changes to groundwater quality would not be anticipated as the development would not increase the amount of impervious surface.

### **3.1.3 Floodplain Management (Executive Order 11988)**

EO 11988 (Floodplain Management) requires that a Federal agency avoid direct or indirect support of development within the SFHA, whenever there is a practicable alternative. FEMA's regulations for complying with EO 11988 and 11990 are promulgated in 44 CFR Part 9. FEMA uses Flood Insurance Rate Maps (FIRMs) to identify properties located within the SFHA. FIRM maps for all alternative sites are attached in **Appendix A**.

Nicholas County has experienced 18 federally-declared flood related disasters since 1967, more than half of which occurred since 2000. Nicholas County participates in the NFIP and floodplain development permits are required at all sites prior to beginning any work within the 100-year floodplain. The City of Richwood’s current Floodplain Ordinance was adopted in 2011. As all alternatives are located either partially or completely within the SFHA, the Eight-Step Planning Process for Floodplains and Wetlands has been included below.

| <b>Eight-Step Planning Process for Floodplains and Wetlands</b>   |   |
|---|---|
| <p><b>Step 1:</b> Determine whether the Proposed Action is located in a wetland and/or the 100- year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.</p>     | <p><b>Project Analysis:</b> According to FIRM Panel 54067C0457C, effective 7/4/2011, the entire site discussed under the No Action Alternative is located within the 100-year floodplain (Zone AE) and the Regulatory Floodway.</p> <p>According to FIRM Panel 54067C0456C, effective 7/4/2011, the site for the proposed action alternative is outside the SFHA, except for the parking lot.</p> <p>According to FIRM Panel 54067C0457C, effective 7/4/2011, the entire site for the Reconstruction Alternative is located within the 100-year floodplain (Zone AE) and the Regulatory Floodway.</p>   |
| <p><b>Step 2:</b> Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.</p> | <p><b>Project Analysis:</b> An initial Public Notice regarding the potential for work to occur within the floodplain was published following the declaration of DR-4273-WV, in July 2016.</p>   |
| <p><b>Step 3:</b> Identify and evaluate practicable alternatives to locating the Proposed Action in a floodplain or wetland.</p>  | <p><b>Project Analysis:</b> The following alternatives were considered in selecting the proposed action:</p> <p><i>No Action Alternative:</i> Under the No Action Alternative, redevelopment of Richwood Middle and High School would not be conducted. The students would continue to attend school at the temporary classrooms located at Cherry River Elementary School.</p> <p><i>Proposed Action Alternative:</i> Under the Proposed Action Alternative, Richwood Middle and High School would be replaced with a comparable facility at a new location, with the school outside of the SFHA. The parking lot however would still be located within the SFHA.</p> <p><i>Reconstruction Alternative:</i> Under the Reconstruction Alternative, the damaged Richwood Middle and High School would be demolished, and redevelopment would occur on the existing site, elevated above the BFE. However, all points of ingress and egress would be within the 100-yr floodplain or floodway.</p> <p>The Proposed Action Alternative is the best option to locate the new school facility outside the SFHA. The rest</p> |

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|   | of the 8-step will address the Proposed Action Alternative.   |
| <b>Step 4:</b> Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands, and the potential direct and indirect support of floodplain and wetland development that could result from the Proposed Action.   | <b>Project Analysis:</b> All development for the Proposed Action Alternative would occur outside the SFHA, except for the parking lot for the school. Fill would only be placed in the parking lot where it would connect into the existing road network. The parking lot would total 60,385 square feet. |
| <b>Step 5:</b> Minimize the potential adverse impacts from work within floodplains and wetlands (identified under Step 4), restore and preserve the natural and beneficial values served by wetlands.   | <b>Project Analysis:</b> All development for the Proposed Action Alternative would occur outside the SFHA, except for the parking lot for the school. To minimize impacts to the floodplain, appropriate drainage would be constructed and/or upgraded to manage all stormwater on-site.                  |
| <b>Step 6:</b> Re-evaluate the Proposed Action to determine: 1) if it is still practicable in light of its exposure to flood hazards; 2) the extent to which it will aggravate the hazards to others; 3) its potential to disrupt floodplain and wetland values.  | <b>Project Analysis:</b> The Proposed Action remains practicable due to the entire school being located outside of the SFHA, except for the parking lot.  |
| <b>Step 7:</b> If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process. | <b>Project Analysis:</b> Public notice of the Proposed Action Alternative will be given as a function of this EA, informing the public of a potential FEMA funded action, occurring partially within the SFHA.  |
| <b>Step 8:</b> Review the implementation and post-implementation phases of the Proposed Action to ensure that the requirements of the EOs are fully implemented. Oversight responsibility shall be integrated into existing processes.  | <b>Project Analysis:</b> This step is integrated into the NEPA process and FEMA project management and oversight functions.   |

**Alternative 1 – No Action**

Under the No Action Alternative, no additional impacts to floodplains would occur. Middle and high school students of Richwood would continue to attend school at the portable classrooms located at Cherry River Elementary School. All portable classrooms are located outside of the SFHA. Regardless of the alternative selected, the original Richwood Middle School and Richwood High School buildings have already been demolished. If a new school is not constructed on that site, the land would be retained as open space. Based on the review, Alternative 1 would have no effect on the floodplain.

### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

Under the Proposed Action Alternative, all the development would occur outside of the SFHA, except for the school parking lot. Access to and from the school would be located outside of the SFHA, as would the entire school facility. Approval from the local floodplain administrator would be required prior to the construction activities, once the Schematic Design is completed. The original Richwood Middle School and Richwood High School have been demolished using separate funding, and if new facilities are not constructed on that site the land would be retained as open space. Based on the Eight-Step review conducted for Alternative 2, there would be minimal impact to the floodplain.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

The site of the original Richwood Middle School and Richwood High School is within Zone AE, the 100-year floodplain and the floodway. The redevelopment of the school would require a change in the current elevation to meet the criteria of FEMA and NFIP Codes and Standards, potentially resulting in a change to the flood risk of adjacent properties. Fill would be brought to the site to elevate the reconstructed school building outside of the SFHA, however support facilities may still be located within the SFHA. All work would be completed to construct the school building in accordance with NFIP Codes and Standards. While Alternative 3 would be minimally impacted by flood events due to the elevation of the school above the BFE, the development could substantially impact flood risk to surrounding properties, due to the addition of soil to the floodplain. Additionally, the only point of ingress and egress would remain in the SFHA, creating an entrapment risk.

#### **3.1.4 Air Quality**

The Clean Air Act (CAA) requires that states adopt ambient air quality standards to protect the public from potentially harmful amounts of air pollutants. Primary and secondary air quality standards are established by the Environmental Protection Agency (EPA). Primary air quality standards protect the public health, including the health of sensitive populations, such as people with asthma, older adults, and children. Secondary air quality standards protect public welfare by implementing and promoting healthy ecosystems, preventing poor visibility, and preventing damage to crops and buildings. The EPA has set national ambient air quality standards for six criteria pollutants: Ozone (O<sub>3</sub>), Nitrogen Dioxide (NO<sub>2</sub>), Carbon Monoxide (CO), Sulfur Dioxide (SO<sub>2</sub>), Inhalable Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>), and Lead (Pb). WVDEP Division of Air Quality (DAQ) enforces and monitors air quality standards in the State of West Virginia. WVDEP monitors the above-mentioned pollutants, meteorology, and Air Toxic Pollutants such as metals, carbonyls, and Volatile Organic Compounds (VOCs). According to the EPA and WVDEP, Nicholas County is classified as an attainment area, defined as an area that meets National Ambient Air Quality Standards.

### ***Alternative 1 – No Action***

Under the No Action Alternative, no impacts to air quality would result from the portable classrooms remaining at Cherry River Elementary School.

**Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)**

Under the Proposed Action Alternative, minor, short-term impacts to air quality would occur during construction activities. To reduce impacts, the construction contractors would be required to wet down construction areas as needed to mitigate fugitive dust. Emissions from fuel-burning engines (e.g. heavy machinery and earthmoving machinery) could also temporarily increase the levels of some of the criteria pollutants, such as CO, NO<sub>2</sub>, O<sub>3</sub>, PM<sub>10</sub>, and noncriteria pollutants such as VOCs. To mitigate these emissions, BMPs such as management of run times and maintenance for fuel burning equipment would be implemented. Due to the development size, anticipated grading impact and availability of debris recycling or disposal facilities, Air Quality Permitting through WVDEP is not anticipated. Long-term impacts to local air quality near the new school site, including from increased traffic and utility usage, would be negligible.

**Alternative 3 – Redevelopment of Richwood Middle and High School**

To reduce impacts during construction, the contractors would be required to wet down construction areas as needed to mitigate fugitive dust. Emissions from fuel-burning engines could also temporarily increase the levels of some of the criteria pollutants, such as CO, NO<sub>2</sub>, O<sub>3</sub>, PM<sub>10</sub>, and noncriteria pollutants such as VOCs. To mitigate these emissions, BMPs such as management of engine run times and maintenance BMPs for fuel burning equipment would be implemented. Due to the development size and grading impact, Air Quality Permitting through WVDEP is not anticipated. Short-term air quality impacts during construction would be anticipated to be minor. Over the long-term, impacts to air quality would be negligible, no greater than they were when the school previously operated.

**3.2 Biological Environment**

**3.2.1 Terrestrial and Aquatic Environment**

**Alternative 1 – No Action**

Under the No Action Alternative, there would be no impacts to the terrestrial and aquatic habitats or species.

**Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)**

During TERRADON Corporation’s site reconnaissance, varying plant species were observed. Dominant Upland Tree Vegetation is composed of Red Maple (*Acer rubrum*), Southern Red Oak (*Quercus falcata*), Northern White Oak (*Quercus alba*), Pignut Hickory (*Cara glabra*), Mockernut Hickory (*Carya alba*), American Beech (*Fagus gandifolia*), American Elm (*Ulmus Americana*), and Tulip Poplar (*Liriodendron tulipifera*). Dominant upland herbaceous plants are composed of Red Fescue (*Festuca rubra*), Perennial Rye Grass (*Lolium perenne*), Tall Goldenrod (*Solidago altissima*), and Rambler Rose (*Rosa multiflora*).

Per the West Virginia Division of Natural Resources, there are over 600 species of animals in the state. This includes more than 57 species of reptiles and amphibians, 70 wild mammals, 178

species of fish and 300 species of bird. Commonly observed species in the area include the Eastern Cottontail (*Sylvilagus floridana*), Common Raccoon (*Procyon lotor*), Virginia Opossum (*Didelphis virginiana*), Eastern Gray Squirrel (*Sciurus carolinensis*), Deer Mouse (*Peromyscus maniculatus*), White-tailed Deer (*Odocoileus virginianus*), Pileated Woodpecker (*Dryocopus pileatus*), Rock Pigeon (*Columba livia*), American Crow (*Corvus brachyrhynchos*), Wild Turkey (*Meleagris gallopavo*), Eastern box turtle (*Terrapene c. carolina*), and the Eastern garter snake (*Thamnophis s. sirtalis*). Additional transient species may be observed in the area.

Construction activities at this location would take place within a substantially-developed area and disturbance to the terrestrial environment would be minimal, with approximately 0.5 acres of vegetation and tree removal occurring. Appropriate BMPs would be implemented to protect the vegetated embankment and the Cherry River from construction impacts. Impacts to terrestrial species resulting from the Proposed Action Alternative are expected to be minor, on the scale of the entire community. Mobile species could relocate to nearby areas not affected by construction. Non-mobile species could be killed in areas cleared or filled, which are minimal in the project area. Therefore, the Proposed Action Alternative is anticipated to have minimal short and long-term impacts to the terrestrial and aquatic habitats.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, most of the subject property would be elevated using clean fill from an offsite location which would eliminate most of the existing vegetation. Due to the previous development on the site, existing vegetation is minimal and loss of both plant and animal species would be negligible. While there would be no work in water, the most likely potential negative impact could result from temporary runoff of materials into the Cherry River, which may degrade water quality and negatively impact aquatic species. The contractor would include appropriate BMPs to limit impacts to the river during construction; therefore, impacts would be minimal.

### **3.2.2 Wetlands (Executive Order 11990)**

The USACE regulates the discharge of dredged or filled material into waters of the United States, including wetlands, pursuant to Section 404 of the CWA. In addition, EO 11990 (Protection of Wetlands) requires Federal agencies to avoid, to the extent possible, adverse impacts on wetlands that may result from federally funded actions.

#### ***Alternative 1 – No Action***

Under the No Action Alternative, no impacts to wetlands would occur.

#### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

Under the Proposed Action Alternative, no impacts to wetlands would occur due to the layout and design of the school. There are two wetlands within the property boundary, but they would not be impacted by the proposed construction. Per correspondence from the USACE Huntington District, dated May 28, 2019, the proposed action qualifies for Nationwide Permit (NWP) #3.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

There are no wetlands mapped on the subject property and a wetland delineation is not required due to the existing development on site. Under the Reconstruction Alternative, no impacts to wetlands would occur.

### **3.2.3 Threatened and Endangered Species**

Section 7 of the Endangered Species Act requires any federal agency that funds, authorizes, or carries out an action to ensure that its action is not likely to jeopardize the continued existence of any endangered or threatened listed species or result in the destruction or adverse modification of designated critical habitats.

#### ***Alternative 1 – No Action***

Under the No Action Alternative, no impacts to listed species, their habitats, or designated critical habitat would occur.

#### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

A request for an Official Species List through the USFWS Information for Planning and Conservation (IPaC) tool, dated January 30, 2019, revealed the project is located within a potential area of occurrence for four threatened and endangered species, including: candy darter (*Etheostoma osburni*); Virginia big-eared bat (*plecotus townsendii virginianus*); northern long-eared bat (*Myotis septentrionalis*); and Indiana bat (*Myotis sodalis*). There is no designated critical habitat.

In a Section 7 Consultation letter, dated February 13, 2019, FEMA determined that the proposed project *may affect, but is not likely to adversely affect* the candy darter, Virginia big-eared bat, and Indiana bat. Additionally, FEMA determined that any take of Northern Long-eared Bat (NLEB) associated with this project is exempted under the 4(d) rule, and no conservation measures are required. USFWS concurred with this determination on March 26, 2019. Please see relevant correspondence and the consultation letter attached in **Appendix C**. The USFWS identified a condition in its response, that the applicant must utilize a Sediment and Erosion control plan, with appropriate measures to minimize any potential discharges into the river, to avoid and minimize impacts to the candy darter.

#### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, all construction activities, including staging, would take place within the developed lot. Threatened and endangered species are listed in the project area and thus would require consultation with the USFWS. There would be no disturbance to existing trees or other ground cover. Although the site is adjacent to the Cherry River, which is known habitat for several listed aquatic species, there is a heavily vegetated area separating the parcel from the river that would provide protection from sedimentation. Additionally, BMPs such as silt fencing would be implemented during construction activities to avoid negative impacts to water quality. Therefore, this alternative would likely result in a *may affect, but not likely to adversely*

affect federally-listed species determination; however, FEMA has not consulted with USFWS regarding this alternative.

### **3.3 Hazardous Materials**

TERRADON Corporation completed a Phase I Environmental Site Assessment (ESA) for the proposed action alternative site. A Phase I ESA includes onsite reconnaissance and review of an EDR report, consisting of radius maps, historical aerial photographs, historical topographic maps, historical Sanborn maps, city directory information, assessor information, environmental liens, National Wetlands Inventory (NWI) mapping, floodplain information, historical well data, and other information used to characterize potential environmental hazards.

The Phase I ESA was performed in conformance with the scope and limitations of ASTM E 1527-13 and in general accordance of the agreement between NCBOE and TERRADON Corporation. After review of the EDR report and geographic locations of potential environmental concerns, it was determined that none of the nearby sites posed a recognized environmental concern to the potential new school sites or current facility. The full Phase I ESA report including the EDR report and site photographs can be found in **Appendix B**.

During construction, hazardous materials would be stored in a locked, covered, facility wherever possible. Recyclable materials would be hauled off-site for recycling, and construction waste would be disposed of at a permitted landfill facility.

#### ***Alternative 1 – No Action***

Under the No Action Alternative, no impacts from hazardous materials are anticipated. No change to the status quo is anticipated, and no recognized environmental concerns were listed or found in the EDR database information that would impact the continued operation of portable classrooms at Cherry River Elementary School.

#### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

Under the Proposed Action Alternative, no impacts from hazardous materials are anticipated. No recognized environmental concerns were listed or found in EDR database information that would impact the site. Any hazardous materials discovered, generated, or used during construction would be handled and disposed of in accordance with applicable local, State, and Federal regulations.

#### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, no impacts from hazardous materials are anticipated because no recognized environmental concerns were listed or found in EDR database information that would impact the site. Any hazardous materials discovered, generated, or used during construction would be handled and disposed of in accordance with applicable local, State, and Federal regulations.

### **3.4 Socioeconomics**

#### **3.4.1 Zoning and Land Use**

Nicholas County does not have any legislated zoning regulations in effect, but land use regulations are enforced within the city limits of Summersville and Richwood.

##### ***Alternative 1 – No Action***

According to Nicholas County Assessor Information, the property consisting of Cherry River Elementary School, encompassing the Richwood Middle School and Richwood High School portable classrooms, is listed as two parcels: Parcel ID 34-06-0014-0054 and 34-06-0009-0119. These parcels are currently listed as a Residential Property Class with a Land Use of 612-School. Under this Alternative, no zoning or land use changes would be required at this site.

##### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

According to Nicholas County Assessor Information, the property consisting of Cherry River Elementary School which includes the Richwood Middle and High School portable classrooms, is listed as two parcels: Parcel ID 34-06-0014-0054 and 34-06-0009-0119. These parcels are currently listed as a Residential Property Class with a Land Use of 612- School. Under this alternative, three additional parcels would be acquired to accommodate the expanded facility, approximately 2.7 acres in size: Parcel ID 34-06-0009-0116, 34-06-0009-0117, and 34-06-0009-0118. These parcels are currently residential lots and would have to be reclassified to a Land Use of 612- School; therefore, changing the property listing long term. Land use at the site would no longer be residential and this constitutes a minor impact on land use due to the limited acreage impacted.

##### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, no zoning or land use changes would be required. The existing site is listed as 612-School. Land use patterns would be similar to land uses prior to the disaster, so any impacts would be negligible.

#### **3.4.2 Noise**

Noise is generally defined as undesirable sound and is federally regulated by the Noise Control Act of 1972 (NCA). Although the NCA gives the EPA the authority to prepare guidelines for acceptable ambient noise levels, it only charges those federal agencies that operate noise-producing facilities or equipment to implement noise standards; the EPA's guidelines, and those of many federal agencies, state that outdoor sound levels in excess of 55 Decibels (dB) are "normally unacceptable" for noise-sensitive land uses such as residences, schools, and hospitals. A noise ordinance does not exist for the community of Richwood.

##### ***Alternative 1 – No Action***

Under the No Action Alternative, no increased long-term noise impacts are anticipated.

***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

Under the Proposed Action Alternative, construction and developmental noise impacts would be temporary and limited to the duration of construction activities. To reduce the impacts of noise generated, construction activities would be restricted to normal business hours. Equipment and machinery utilized at the site would be required to meet all State and Federal noise regulations. Long term, the noise level at immediate site is anticipated to be slightly higher due to the operation of the new facility (e.g., when children are outdoors, or heating or cooling systems are operating). Moderate, short-term increases in noise levels would be anticipated to occur during construction activities. Long term vehicle traffic would be similar to current levels with students attending Richwood Middle and High School in addition to Cherry River Elementary School.

***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, construction and developmental noise impacts would be temporary and limited to the duration of construction activities. To reduce noise levels during that period, construction activities would be restricted to normal business hours. Equipment and machinery utilized at the site would meet all State and Federal noise regulations. Moderate, short-term, increases in noise levels would be anticipated to occur during construction activities. Long term, vehicle traffic would increase back to pre-disaster levels with students returning to the original Richwood Middle School and Richwood High School.

**3.4.3 Public Services and Utilities**

Public services to the alternative locations are provided by private industries, the City of Richwood, and the State of West Virginia. These include police, fire, water, sewer, utilities, and road connections.

***Alternative 1 – No Action***

Under the No Action Alternative, public services would continue to be provided with no impact.

***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The Richwood area has established public services and utilities. The site location has access to the necessary utilities, including: sewage, public water, garbage collection services, natural gas, electric, and stormwater management. Water supply services are provided by West Virginia American Water; sewage services are provided by Richwood Waste Water Treatment Plant; natural gas is supplied by multiple companies; electric power service is provided by American Electric Power; emergency fire services are provided by Nicholas County Fire Department and Richwood Fire Department; emergency medical services are provided by Jan Care Ambulance Services and/or Air Evac Life Team 103, garbage collection is provided by Nicholas Sanitation Incorporated; and Police Services are provided by the Richwood Police Department, Nicholas County Sheriff's Department, and West Virginia State Police. The nearest medical facility is Camden Family Health, located approximately 2 miles away, and the nearest hospital is Pocahontas Memorial Hospital, located approximately 37 miles away. The primary road to provide emergency services is Riverside Drive. If road closures are located west of the subject

property along Riverside Drive, then emergency responders can access from the east. If road closures occur to the east of the subject property, emergency services would have to loop around by accessing Greenbrier Road to Little Laurel Run Road (County Route 39/18) back to Riverside Drive. The general area of the subject property is already developed, with partial site utility access to water supply, sewage, electricity, and natural gas. Trenching would be required to expand connections to existing utilities. During construction, minor, short-term utility outages may occur in the surrounding area due to utility development; however long-term effects due to utility access would not be anticipated.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, there would be slight increases in public service or utility usage during construction activities at the existing site that would ultimately return to pre-disaster service levels.

### **3.4.4 Traffic and Circulation**

The West Virginia Division of Highways (WVDOH) via the West Virginia Department of Transportation (WVDOT) is responsible for planning, engineering, right of way acquisition, construction, reconstruction, traffic regulation and maintenance of state roads, highways, and a portion of federal roads within West Virginia’s boundaries. Arterials, connectors, rural roads, local roads, and county roads are constructed and maintained by county or city governments.

### ***Alternative 1 – No Action***

Under the No Action Alternative, no changes to existing roads or traffic patterns would occur.

### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The proposed project site is located along Riverside Drive in Richwood. Due to the student and staff population of the facilities proposed to be developed, a traffic study at the confluence of Riverside Drive and Richwood Road was conducted by A. Morton Thomas and Associates, Inc (AMT). This study looked at the traffic impacts from Alternative 2, compared to the traffic flow before the portable schools were in place. No changes to traffic patterns are anticipated for the site development long term, however, minor changes during construction may be encountered. The existing traffic volumes are relatively low and the traffic that would be generated by the proposed schools could be accommodated within the existing transportation system. The site as proposed will be served by four driveways with two connections to Riverside Drive (one full movement and one egress only) and two full-movement connections to Richwood Avenue. All site driveways would be assumed to operate under two-way stop-control. Recommended infrastructure adjustments for the proposed site driveways are included in the full traffic study report in **Appendix B**.

The study indicates that there would be no detrimental impacts to traffic in the surrounding area. The full traffic study report completed by AMT can be found in **Appendix B**. Based upon the results of the traffic study and proposed construction, there would be negligible long-term impacts to traffic.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, there would be temporary impacts to current traffic patterns during construction activities. No long-term impacts are anticipated, compared to traffic patterns that existed prior to the disaster, when the school was in use.

#### **3.4.5 Environmental Justice (Executive Order 12898)**

EO 12898 (Environmental Justice in Minority Populations and Low-Income Populations) mandates that Federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Socioeconomic and demographic data for the project area were analyzed to determine if a disproportionate number of minority or low-income persons have the potential to be adversely affected by the proposed project.

United States Census Bureau Data were used to assemble the following community profiles for Nicholas County and the city of Richwood. Official 2010 Census Data were used as applicable, while additional information was taken from the 2013-2017 American Community Survey 5-Year Estimate (U.S. Census Bureau, American Fact Finder). The American Community Survey 5-year estimates for the percentages of the population of the project area based on race and ethnicity are provided in **Table 1** below.

West Virginia has a population of 1,852,994, with school age children making up 18.1% of the population (2010 Demographic Profile). The state has an educational attainment rate of 85.9% of high school graduates and higher. The median household income is \$44,061 and 17.8% of individuals are identified as living below the Federal Poverty Level (FPL). Of the state population, approximately 1.5% of individuals identify as being of Hispanic or Latino origin. Most of the population identifies as white, with 1.7% of individuals indicating they are of two or more races. Approximately 97.5% of the population is listed as English-speaking (2013-2017 American Community Survey 5-Year Estimate).

In comparison, Nicholas County is characterized as having a population of 25,043 with children under the age of 5 years at 5.4%, the population under 18 years at 20.5%, the population 65 years and over at 21.6%, and the female population at 50.7%. Nicholas County is listed with an educational attainment of high school graduate or higher of 83.7%. Most of the population, approximately 99%, is listed as English speaking. According to 2013-2017 American Community Survey Estimates along with 2010 Demographic Profiles, the average household income is \$39,901 with 20.1% below poverty levels.

Based on the 2017 Population Estimate from the United States Census Bureau (dated July 1, 2017) for Richwood, the city is listed as having a population of 1,906 with a median household income of \$27,311 and 30.5% of all families are below the FPL, a higher percentage than in the County and the state as a whole. The median age in the city is approximately 54.4 years. According to 2013-2017 American Community Survey Estimates along with 2010 Demographic Profiles, the educational attainment of high school graduates or higher is listed as 79.8%, the foreign-born population is listed as 17, and total number of housing units is approximately 1,241.

Based on the American Community Survey 5-year estimates, children under the age of 5 years old represent 6.7% of the population, ages 5 to 9 represent 2.3%, ages 10 to 14 represent 7.6%, and 15 to 19 years as 2.4%. Most of the population, approximately 99%, is listed as English speaking. Therefore, a non-English EA or public notice is not warranted as part of this EA. However, appropriate plain language guidance should be made if requested for limited English-speaking residents.

**Table 1 – Summary of Percent Populations for West Virginia, Nicholas County, and Richwood**

| Race  | West Virginia | Nicholas County | Richwood |
|---|---------------|-----------------|----------|
| <b>White Alone</b>                                      | 93.3%         | 97.4%           | 94.2%    |
| <b>Black or African American Alone</b>                  | 3.6%          | 0.7%            | 2.0%     |
| <b>American Indian and Alaska Native Alone</b>          | 0.2%          | 0.4%            | 0%       |
| <b>Asian Alone</b>                                      | 0.8%          | 0.3%            | 0%       |
| <b>Native Hawaiian and Other Pacific Islander Alone</b> | 0%            | 0%              | 0%       |
| <b>Some Other Race Alone</b>                            | 0.4%          | 0.3%            | 0%       |
| <b>Two or More Races</b>                                | 1.7%          | 1.0%            | 3.8%     |
| <b>Ethnicity</b>  |               |                 |          |
| <b>Hispanic or Latino (of any race)</b>                 | 1.5%          | 0.6%            | 1.7%     |

**Alternative 1 – No Action**

Under the No Action Alternative, the redevelopment of the original Richwood Middle School and Richwood High School would not be conducted, and FEMA funding would not be provided. There would be no disproportionate and adverse impacts on low-income or minority populations. Nevertheless, the entire school-aged population would suffer from adverse impacts as the No Action Alternative would impact the educational development for all middle and high school age students in Richwood. Following the near destruction of the original Richwood Middle School and Richwood High School in the 2016 flood event, the school’s former students have been accommodated at the Cherry River Elementary School site in portable classroom facilities. These are intended to be temporary in nature and do not provide long-term educational facilities for the middle and high school-aged population of Richwood.

***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The Proposed Action would not have disproportionately high and/or adverse effects on minority or low-income populations, as it would impact all populations in the community equally. The project site is within city limits and located approximately two miles away from the previous middle and high school. The proposed project would relocate students, teachers, and staff from the portable classrooms adjacent to Cherry River Elementary School to permanent buildings and facilities built to accommodate the Richwood middle and high school student population on the same site. This alternative would not permanently increase the number of residents in the project vicinity and would not generate additional demand for housing or jobs. The Proposed Action would comply with EO 12898 and would not result in long term adverse socioeconomic impacts.

***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, there would not be impacts to environmental justice or demographics. This alternative would allow for permanent facilities to be built on the site of the original Richwood Middle School and Richwood High School to provide long term educational facilities. The facilities would be built in the floodplain but elevated above BFE. Ingress and egress routes would continue to be within the floodplain which could leave students, faculty, and staff at risk, including the risk of entrapment during a flood, and the risk of interruptions in school services after a flood. This alternative would not have disproportionately high and/or adverse effects on minority or low-income populations, as it would impact all populations in the community equally.

**3.4.6 Safety and Security**

To minimize risks to safety and human health, all construction activities would be performed using qualified personnel trained in the proper use of equipment, including all safety precautions. Additionally, all activities would be conducted in accordance with the standards specified in Occupational Safety and Health Administration (OSHA) regulations. EO 13045 (Protection of Children from Environmental Health Risks and Safety Risks) mandates that Federal agencies identify and assess health risks and safety risks that may disproportionately affect children. Environmental health and safety risks include those that are attributable to products or substances that the child is likely to encounter or ingest (such as the air we breathe, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to).

***Alternative 1 – No Action***

Under the No Action Alternative, there would be no change to the status quo. There are no known health or safety issues for students.

***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The Proposed Action Alternative would require extensive construction activities associated with development. Construction activities would require all personnel to have appropriate OSHA certifications and knowledge associated with their profession. Appropriate counter measures would be taken, and construction personnel would adhere to Health Site and Safety Plans. During

construction, appropriate signage and fencing would be implemented to ensure the public does not enter an active construction zone. Although the reconstruction activities would be within a populated residential area, appropriate counter measures would mitigate safety risks to the public and no short-term risks would be anticipated. There is safe ingress and egress to this site because the roads that provide access to the school are not in the SFHA. Safety concerns for this alternative would be limited to short term development of the site and facilities, and the alternative would not have a long-term adverse effect on safety or security.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

The Reconstruction Alternative would require extensive construction activities associated with development at the site of the former Richwood Middle and High School. Construction activities would require all personnel to have appropriate OSHA certifications and knowledge associated with their profession. Appropriate counter measures would be taken, and construction personnel would adhere to Health Site and Safety Plans. During construction activities, signage and fencing would be utilized to ensure the public does not enter an active construction zone. Although the reconstruction activities would be within a populated residential area, appropriate counter measures would mitigate safety risks to the public and negligible short-term risks would be anticipated. There would be no anticipated long-term health or safety risks.

## **3.5 Historic and Cultural Resources**

Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, 54 U.S.C. §306108, requires Federal agencies to consider the impact an undertaking has on historic properties. The review activities required under NHPA are referred as the Section 106 process. According to 36 CFR 60.4, historic properties are defined as districts, sites, buildings, structures, and/or objects that are listed in or eligible for listing in the National Register of Historic Places (NRHP). In accordance with the 36 CFR 800.4, Federal agencies are required to identify historic resources within an undertaking's Area of Potential Effect (APE). As defined in 36 CFR Part 800.16(d), the APE "is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist." In consultation with the appropriate State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), Federal agencies must evaluate the identified historic resources for NRHP eligibility and assess the potential effects to those historic properties resulting from the proposed undertaking. If the undertaking is determined to have an adverse effect on historic properties, then the agency must attempt to avoid, minimize, or mitigate that adverse effect. For each of the proposed alternatives, FEMA conducted an archives search utilizing West Virginia SHPO's Interactive GIS Map. A summary of those results and subsequent consultation is provided in the below paragraphs. With regards to tribal resources, only the Catawba Nation has known cultural areas of interest in Nicholas County. FEMA consulted with the Catawba Nation in July of 2016, immediately following the disaster declaration for DR-4273-WV. At the time, the Catawba Nation of Indians did not express concerns with DR-4273-WV Public Assistance activities within the declared counties, including Nicholas County. Furthermore, the school reconstruction alternatives propose construction only on previously disturbed ground and therefore are unlikely to affect tribal resources.

### ***Alternative 1 – No Action***

Under the No Action Alternative, no new impacts to historic properties would result from the portable classrooms remaining at Cherry River Elementary.

### ***Alternative 2 – Relocation of Richwood Middle School and Richwood High School (Proposed Action)***

The existing Cherry River Elementary School building was constructed in 1978. Because the building is not yet fifty years of age, it is not eligible for listing in the NRHP. A search of West Virginia SHPO's Interactive GIS map in the vicinity of the proposed construction site identified no known historic properties; however, a number of properties along Riverside Drive with sightlines to the proposed construction had been surveyed by the Nicholas County Historic Landmark Commission 1997-1998. Though Historic Property Inventory (HPI) forms had been created for the surveyed properties, a determination of eligibility for listing in the NRHP had not been issued. Because the proposed construction is within the viewshed of properties over fifty years of age, FEMA consulted with the West Virginia SHPO to assess potential impacts to historic properties. FEMA evaluated the area surrounding the proposed school construction site for the existence of a potential historic district related to Richwood's nineteenth and early twentieth century industrial history. Many of the houses along Riverside Drive were constructed as company housing for the Cherry River Paper Company. FEMA's evaluation ultimately determined that though there are a number of surviving early twentieth century dwellings associated with workers' housing in the area, there are not sufficient historic resources to justify a historic district, nor are any of the structures individually eligible for listing in the NRHP. In total, FEMA evaluated eight properties, submitting updated HPI forms to WV SHPO for each of the evaluated properties. Ultimately, on May 13, 2109, the WV SHPO concurred with FEMA's determination that the proposed relocation of Richwood Middle School and High School would result in no historic properties affected. This concluded the Section 106 Process for the Proposed Action Alternative. Copies of correspondence between FEMA and West Virginia SHPO (including HPI forms) can be found in **Appendix C** of this report.

### ***Alternative 3 – Redevelopment of Richwood Middle and High School***

Under the Reconstruction Alternative, a search of West Virginia SHPO's Interactive GIS map in the vicinity of the original Richwood Middle School and Richwood High School site revealed no surviving historic properties in the vicinity. The original Richwood High School located at 1 Valley Avenue was determined eligible for listing in the NRHP on January 18, 2017. Following the June 2016 flooding event, the building was determined substantially damaged and was subsequently demolished in November of 2017 under FEMA project PA-03-WV-4273-PW-00762. Though demolition was considered an adverse effect to a historic property, it was executed prior to consideration to reconstruction alternatives. This adverse effect is currently being resolved through the execution of Memorandum of Agreement (MOA) among the FEMA, WV SHPO, WV DHSEM, SBA, and NCBOE. With regards to the Reconstruction Alternative, because the ground has been previously disturbed, and no historic properties are extant on the original Richwood Middle School and Richwood High School site, the Reconstruction Alternative will have no effect to historic properties.

### 3.6 Comparison of Alternatives

The primary impacts from the No Action Alternative would be associated with the lack of a permanent learning facility for Middle and High School age students in the Richwood area. The impacts from the Proposed Action-Alternative would include changes to land use, minor short-term impacts from construction activities, moderate short-term impacts to water resources, and minimal long-term impacts to farmland, water resources, and the floodplain. The impacts from the Redevelopment Alternative would include minor short-term impacts from construction activities, with long term-impacts to the safety and security of the school and children due to the location of the building and surrounding areas within the floodplain. The following table summarizes the potential impacts analyzed for all three alternatives.

**Table 2 – Summary of Environmental Impacts**

| <b>Affected Environment</b>                | <b>No Action Alternative</b>                   | <b>Proposed Action Alternative</b>  | <b>Redevelopment Alternative</b>  |
|--|--|---|---|
| <b>Soils and Geology</b>                   | No impact and no FPPA compliance requirements. | Moderate short-term impacts and minimal long-term impacts. No FPPA compliance requirements.                           | Minimal impacts on a short or long-term basis. No FPPA compliance requirements.   |
| <b>Water Resources and Water Quality</b>   | No impact.                                     | Moderate short-term and negligible long-term impacts.   | Moderate short-term impacts, negligible long-term impacts.  |
| <b>Floodplain Management</b>               | No impact.                                     | Minimal impact, only parking lot would be located within SFHA. All other development would occur outside of the SFHA. | Moderate impact, as the school would be elevated above BFE during redevelopment; however, children would continue to use flood prone areas, with all egress from routes from the school through the SFHA. |
| <b>Air Quality</b>                         | No impact.                                     | Negligible short-term impacts during construction.  | Negligible short-term impacts during construction.  |
| <b>Terrestrial and Aquatic Environment</b> | No impacts.                                    | Minimal impacts to terrestrial species and the aquatic resources.   | No impact to terrestrial species, minimal impact to aquatic resources.  |
| <b>Wetlands</b>                            | No impacts.                                    | No impacts.   | No impacts.   |

| <b>Affected Environment</b>              | <b>No Action Alternative</b>   | <b>Proposed Action Alternative</b>   | <b>Redevelopment Alternative</b>  |
|--|--|--|---|
| <b>Threatened and Endangered Species</b> | No impacts.  | May affect, but not likely to adversely affect, listed species.                                    | May affect, but not likely to adversely affect, listed species and critical habitat.                  |
| <b>Hazardous Materials</b>               | No impacts.  | No impacts.  | No impacts.   |
| <b>Zoning and Land Use</b>               | No impact.   | Minimal impact.  | No impact.  |
| <b>Noise</b>                             | No impact.   | Moderate short-term impact due to construction noise, minimal long-term impacts.                   | Moderate short-term impact due to construction noise, no long-term impacts.                           |
| <b>Public Service and Utilities</b>      | No impact.   | Minor short-term impact during construction, no long-term impacts.                                 | Minor short-term impact during construction, no long-term impacts.                                    |
| <b>Traffic and Circulation</b>           | No impacts.  | Minor short-term construction impacts and negligible traffic impacts long term.                    | Minor short-term construction impacts. No long-term impacts.  |
| <b>Environmental Justice</b>             | No disproportionate and adverse effects on minority or low-income populations. | No disproportionate and adverse effects on minority or low-income populations.                     | No disproportionate and adverse effects on minority or low-income populations.                        |
| <b>Safety and Security</b>               | No short-term construction impacts.  | Negligible short-term construction impacts; no long-term impacts to health and safety of children. | Negligible short-term construction impacts; no long-term impacts to the health and safety of children |
| <b>Historic Structures</b>               | No historic properties affected.   | No historic properties affected.   | No historic properties affected.  |

| Affected Environment              | No Action Alternative            | Proposed Action Alternative      | Redevelopment Alternative        |
|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <b>Archaeological Resources</b>   | No historic properties affected. | No historic properties affected. | No historic properties affected. |
| <b>Tribal and Religious Sites</b> | No effect.                       | No effect.                       | No effect.                       |

## **SECTION FOUR: CUMULATIVE IMPACTS**

Cumulative effects are defined by the CEQ as the impact on the environment, resulting from the incremental impacts of the evaluated actions when added to other past, present, and reasonably foreseeable future actions, regardless of the source, Federal or non-Federal. Per 40 CFR §1508.7, cumulative impacts can result from individually minor but collectively significant actions taken over time.

The City of Richwood is currently engaged in numerous flood recovery projects, funded from various Federal and state sources, as well as local and private sources. Past and present recovery activities include demolition of flood damaged residential, commercial and public buildings, restoration of flood-impacted facilities, acquisition of residential homes from willing sellers, and mitigation of residential homes through elevation or reconstruction above BFE. These activities are being undertaken as part of the necessary recovery efforts following the 2016 flood, and focus is being placed on reducing future risk by removing or mitigating properties in the SFHA. Acquisition of homes in the SFHA may result in some individuals moving to other communities (some of whom may have already relocated, after the 2016 flood event). Additional factors may also influence demographics, including changes to nearby employment opportunities. This project would result in development of 7.8 acres, some of which is previously undeveloped land. Surrounding land use includes residential neighborhoods, wooded lots, and the operation of the Laurel Creek Hardwoods facility.

Reasonably foreseeable future actions in the area include continued public and private recovery projects. Additional future land use changes may occur within the project area due to private development, or currently unplanned flood mitigation projects that convert developed land to open space. Past, present, and future actions are not expected to result in increased long-term development or population growth, as the goal is to restore pre-disaster services to the community.

This assessment concludes that the long-term impacts of the proposed action would consist of minor to negligible impacts to soils, water resources, and floodplains. In addition, there may be moderate short-term impacts to water quality and soils during construction. The other activities described above affecting the same area could also impact these resources. Impacts from other projects to soils would be minimized using Erosion and Sedimentation Control Plans. Projects proposed in the floodplain are managed through the requirement to obtain permits from the local floodplain manager and projects proposed to impact waterways would need to obtain permits

through WVDEP and USACE. Because frameworks are in place to manage potential environmental impacts, no significant impacts are anticipated from the incremental impact of the proposed action in combination with other past, present, and reasonably foreseeable future actions near the former school site and the site of the Cherry River Elementary School and proposed new school facilities.

## **SECTION FIVE: PUBLIC PARTICIPATION**

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Prior to the start of the formal federal NEPA process, the selection of a site to construct the new Richwood Middle and High School was the focus of both city and county public meetings. Coordination with FEMA and public involvement have been conducted throughout the NEPA EA process. Public involvement included Nicholas County public meetings, NCBOE meetings, and town hall meetings to establish an open discussion with the surrounding community. Throughout the process representatives from state, local, and federal agencies, state and Federal representatives, politicians, local community, and schools have participated in the public comment process.

The NEPA process required that opportunities be provided for public review and comment. The publication of the draft EA kicked off a 30-day public comment period, offering an additional formal opportunity for public involvement. NCBOE advertised the Draft EA for the relocation and development of the original Richwood Middle School and Richwood High School as per NEPA requirements. The proposed site for project activities consists of approximately 7.4 acres located at 190 Riverside Drive, Richwood, West Virginia. The property where the elementary school is located is currently owned by the Nicholas County Building Commission. Coordinates for the center of the subject property are 38.218939 latitude, -80.553567 longitude. The 30-day comment period began on July 4, 2019 and lasted 30 days from the date of the advertisement in the *Nicholas Chronicle* newspaper, until August 3, 2019. The Draft EA Document was made available at the Richwood Public Library and posted online at the FEMA website at <https://www.fema.gov/disaster/4273>. Comments were submitted by email to [FEMA-R3-EHP-PublicComment@fema.dhs.gov](mailto:FEMA-R3-EHP-PublicComment@fema.dhs.gov) or by mail, addressed to FEMA Region III, Disaster 4273, 615 Chestnut Street, Sixth Floor Philadelphia, PA 19106, ATTENTION: NCBOE Cherry River NEPA Comments. A public meeting on the Draft Environmental Assessment was held July 17, 2019 from 6 p.m. to 8 p.m. at Cherry River Elementary, located at 190 Riverside Dr, Richwood, WV 26261. The meeting provided an overview of the Draft Environmental Assessment and allowed an in-person opportunity to submit public comments and ask questions. 36 total comments were received during the public comment period. Substantive comments received during the public comment period were addressed as appropriate in the final document. After substantive comments were addressed, the Draft EA becomes final and the initial Public Notice also serves as the final Public Notice. A Response to Comments Document was generated and included into the updated report, as **Appendix E**. The Public Notice was attached in **Appendix D**.

## **SECTION SIX: MITIGATION MEASURES AND PERMITS**

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- If deviations from the proposed scope of work result in substantial design changes, the need for additional ground disturbance, additional removal of vegetation, or any other unanticipated changes to the physical environment, prior to the start of work the applicant (SBA and NCBOE) must contact FEMA so that the revised project scope can be

evaluated for compliance with NEPA and other applicable environmental laws.

- The applicant (SBA and NCBOE) is responsible for obtaining and complying with all required local, State and Federal permits and approvals.
- The applicant must utilize an erosion and sedimentation control plan, with appropriate measures to minimize any potential discharges into the river, to minimize and avoid impacts to the candy darter.
- Work must be conducted in the fashion it is proposed in any permit applications. Changes to project design would require reopening consultations with regulatory agencies.
- Terms and conditions set by USACE and WVDEP to minimize effects to water quality will be abided by the applicant.
- Construction BMPs, as identified in the Erosion and Sedimentation Control Plan prepared for the proposed action, will be utilized and maintained throughout construction to control soil erosion and sediment, reduce spills and pollution, and provide habitat protection.
- Erosion controls will be in place prior to any ground disturbing activity.
- Avoided wetlands and streams will be fenced during construction as no-work areas.
- Site soils will be covered and/or wetted during construction to minimize fugitive dust.
- Construction activities will be conducted during the daytime hours to reduce adverse noise impacts.
- The applicant (SBA and NCBOE) will monitor ground disturbance during the construction phase; should human skeletal remains, or historic or archaeological materials be discovered during construction, all ground-disturbing activities on the project site shall cease and the applicant shall notify the coroner's office (in the case of human remains), FEMA, and the State Historic Preservation Office.
- Any hazardous materials discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, state, and federal regulations, with WVDEP being the lead agency regarding compliance. During all activities, appropriate measures to remove, prevent, contain, minimize, and control spills of any potentially hazardous materials will be employed.
- Heavy machinery and equipment to be used for the proposed action will meet federal clean air standards. In addition, all equipment used shall have sound control devices no less effective than those provided on the original equipment. No equipment shall have un-muffled exhaust.
- All equipment shall comply with pertinent equipment noise standards of the U.S. Environmental Protection Agency.

## **SECTION SEVEN: CONSULTATIONS AND REFERENCES**

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U.S. Fish and Wildlife Service (USFWS). 2017.

USFWS, Wetlands Mapper. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>.

U.S. Geological Survey (USGS). 2006. Ground Water Atlas of the United States, Delaware, Maryland, New Jersey, North Carolina, Pennsylvania, Virginia, West Virginia HA 730-L. [http://pubs.usgs.gov/ha/ha730/ch\\_1/index.html](http://pubs.usgs.gov/ha/ha730/ch_1/index.html)

USGS 7.5-Minute Topographic Quadrangle Map

West Virginia Department of Environmental Protection-Division of Air Quality

West Virginia Department of Natural Resources

West Virginia Wildlife Diversity Program

West Virginia National Heritage Program

West Virginia Department of Wildlife

West Virginia Division of Highways

West Virginia Division of Transportation

Pertinent and available local, state, and Federal government listing of recognized environmental conditions were reviewed for evidence of activities, which may have an adverse impact on the subject property. Some of those agencies/listings and the databases searched EDR include the following:

- US Environmental Protection Agency (USEPA);

- West Virginia Department of Environmental Protection (WVDEP);
- Division of Water Resources (DWR);
- National Priorities List (NPL);
- Proposed National Priority List sites;
- National Priority List Deletions (Delisted NPL);
- Federal Superfund Liens (NPL Liens);
- Active Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
- CERCLIS No Further Remedial Action Planned sites (CERC-NFRAP);
- Corrective Action Report sites (CORRACTS);
- Resource Conservation and Recovery Information System (RCRIS) databases including the Treatment, Storage and Disposal Facility (TSD) list and large and small quantity generator list (LQG/SQG) sites;
- Emergency Response Notification System (ERNS);
- Hazardous Materials Information Reporting System (HMIRS);
- Engineering Controls Sites List (US ENG CONTROLS);
- sites with Institutional Controls (US INST CONTROLS);
- Department of Defense Sites (DOD);
- formerly used defense sites (FUDS);
- US Brownfield;
- Superfund Consent Decrees (CONSENT);
- Records of Decision (ROD);
- Uranium Mill Tailings Sites (UMTRA);
- Open Dump Inventory (ODI);
- Toxic Chemical Release Inventory System (TRIS);
- Toxic Substances Control Act (TSCA);
- FIFRA/TSCA Tracking System (FTTS);
- Section 7 Tracking Systems (SSTS);
- Land Use Control Information System (LUCIS);
- Incident and Accident Data (DOT OPS);
- Integrated Compliance information System (ICIS);
- FIFRA/TSCA Tracking System Administrative Case Listing (HIST FTTS);
- Drug Lab Site Locations (CDL);
- Radiation Information Database (RADINFO);
- CERCLA Lien Information (LIENS 2);
- PCB Activity Database System (PADS);
- Material Licensing Tracking System (MLTS);
- Mines Master Index File (MINES);
- Facility Index System/Facility Identification Initiative Program Summary Report (FINDS);
- RCRA Administrative Action Tracking System (RAATS);
- Indian Reservations (INDIAN RESERV);
- Indian LUST (INDIAN LUST);
- Indian UST (INDIAN UST);

- Manufactured gas plants;
- State hazardous waste sites (SHWS);
- Municipal Solid Waste Landfills/Transfer Stations (State Landfill);
- Leaking Underground Storage Tank (LUST) list;
- Registered underground storage tank (UST);
- Spills listing (SPILLS);
- Sites with Institutional Controls (INST CONTROLS);
- Voluntary Remediation Sites (VCP);
- List of Drycleaner Locations (DRYCLEANERS);
- Wastewater Discharge Permits Listing (NPDES); and,
- Permitted Facility and Emissions Listing (AIRS)

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## **APPENDICES**

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**Appendix A Maps and Figures**

**Appendix B Technical Reports**

**Appendix C Agency Correspondence**

**Appendix D Public Notice**

**Appendix E Public Comments & Response to Public Comments**