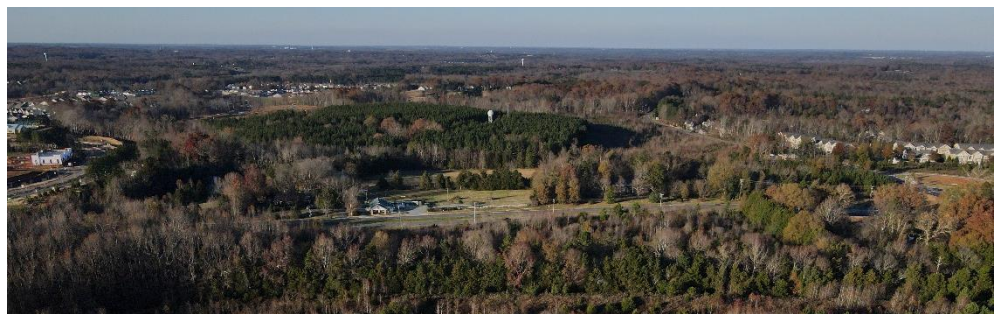




U.S. Department of Transportation  
Federal Railroad Administration

# Aberdeen Carolina & Western Railway Congestion Mitigation Project

## Environmental Assessment



July 2022

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# Aberdeen Carolina & Western Railway Congestion Mitigation Project

## Environmental Assessment

Prepared For:

U.S. Department of Transportation  
Federal Railroad Administration

Prepared by:

*Skelly and Loy, A Terracon Company  
Harrisburg, PA*

Pursuant to:

National Environmental Policy Act (42 USC § 4321 et seq.) and implementing regulations (40 CFR Part 1500 et seq.), Section 4(f) of the U.S. Department of Transportation Act (49 U.S.C. § 303(c)), FRA Procedures for Considering Environmental Impacts (64 Fed. Reg. 28545, May 26, 1999); National Historic Preservation Act (54 USC § 300101 et seq.) and implementing regulations (36 C.F.R. Part 800); Clean Air Act, as amended (42 USC § 7401 et seq.) and implementing regulations (40 C.F.R. Parts 51 and 93); the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.) and implementing regulations (50 C.F.R. Part 402); and the Clean Water Act (33 U.S.C. § 1251 et seq.) and implementing regulations (33 C.F.R. Part 320 et seq. and 40 C.F.R. Part 230).

***Jamie P. Rennert***

***7/27/2022***

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Jamie P. Rennert  
Director, Office of Infrastructure Investment  
Office of Railroad Policy and Development  
Federal Railroad Administration

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Date

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## Executive Summary

The Aberdeen Carolina & Western Railway (ACWR) is proposing to use Federal Railroad Administration (FRA) Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program and Railroad Rehabilitation and Improvement Funding (RRIF) to administer a congestion mitigation project. The Proposed Action includes the construction of new facilities at five (5) locations. The five Sites include three (3) storage and passing sidings, two (2) storage and switching yards, and one (1) warehouse. The purpose of the Proposed Action is to address congestion issues on the existing railroad. All construction activities would take place within railroad right-of-way (ROW) or on land owned by ACWR<sup>1</sup>.

The Study Area for the Proposed Action comprises five separate Sites in central North Carolina. The three western Sites are located in the urbanized and rapidly developing Charlotte Metropolitan Statistical Area (MSA) while the two eastern Sites are located in the rural area surrounding Candor, NC (see [Figure 1](#)). Due to the use of federal funds, the Proposed Action must comply with the National Environmental Policy Act (NEPA) of 1969. To document the Proposed Action and its effects on the natural, cultural, and social environment, the Federal Railroad Administration (FRA), as lead federal agency, has prepared an Environmental Assessment (EA). The EA inventories the environmental resources within the defined Study Area, discloses and analyzes impacts to those resource areas, and identifies potential mitigation opportunities to minimize impacts ([Table 1](#)). The EA also summarizes the agency and public outreach completed to date. This document affords the public an opportunity to review the information and participate in the NEPA process prior to decisions being made or action being taken.

**What is the Purpose of the Proposed Action?** The purpose of the Proposed Action is to reduce the congestion associated with the current configuration of the ACWR rail line. Reducing congestion would improve viability and long-term sustainability of freight rail service and increase efficiency along the existing rail and road transportation network. The Proposed Action includes the construction of storage and passing sidings, storage and switching yards, and a rail-served warehouse.

**How can I get involved or comment on the EA?** Public comments are now being solicited on this EA. FRA is accepting public comments related to this EA during a public comment period that will extend for a minimum of 30 days after publication of the EA. Comments may be submitted via email to [kevin.wright@dot.gov](mailto:kevin.wright@dot.gov) or physical mail to:

Kevin Wright  
Environmental Protection Specialist  
Federal Railroad Administration  
1200 New Jersey Avenue Southeast  
Washington, DC 20590

**What happens next?** Once the comment period closes, the FRA will review comments from the public and agencies and issue a Finding of No Significant Impacts (FONSI) or determine the Proposed Action has the potential for one or more significant impacts to the human environment, thereby requiring the preparation of an Environmental Impact Statement (EIS).

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<sup>1</sup> The project sponsor (ACWR) owns or will own the Study Area when construction is proposed to commence. Portions of the Study Area are owned currently by ACWR through its subsidiaries, Mint Hill Industrial, LLC and ACWR Shops, LLC through common ownership. Further, ACWR operates the existing rail line and is in the process of purchasing it from Norfolk Southern. This acquisition was approved via Categorical Exclusion in 2021. For simplicity, ACWR is referred to as the owner of the Study Area throughout the EA.

**Table 1: Summary of Impacts and Mitigation Measures**

<b>Resource</b>	<b>Build Alternative Anticipated Impacts</b>	<b>Build Alternative Mitigation Measures</b>
Air Quality, Greenhouse Gas (GHG), Climate Change	Impacts are below US EPA <i>de minimis</i> . No further analysis required.	No mitigation required; best management practices proposed to reduce temporary impacts.
Noise and Vibration	No adverse noise impacts.	No mitigation required; best management practices proposed to reduce temporary impacts.
Farmland and Forest	Statewide Important Soil impacts and forest impacts.	No mitigation
Water Quality	No decrease in water quality is anticipated with adherence to state and federal permitting requirements. ACWR Storage Yard is within a designated Water Supply Watershed.	ACWR Storage Yard design includes 30-foot buffer around wetland and watercourses.
Wetlands and Watercourses	No wetland impacts and 0.04 acre of stream impacts.	Mitigation will be determined through coordination with USACE during the Section 404 permitting process.
Threatened and Endangered Species	May affect, but not likely to adversely affect Northern Long-eared Bat (NLEB). No effect to other federal and state species.	Mitigation measures require tree clearing to be completed outside of active roost season (from June 1 through July 31).
Cultural and Historic Resources	No historic properties were identified within the Study Area. Section 106 consultation with NC SHPO resulted in a determination of no historic properties affected.	No mitigation
Section 4(f)/6(f) and Parks and Recreation	No Section 4(f) or Section 6(f) resources present.	No mitigation
Hazardous Material and Hazardous Waste	No hazardous waste concerns.	No mitigation; however, should waste be encountered during construction, it will be disposed of properly.
Land Use	Minor change in land use within designated growth areas.	No mitigation
Demographics and Environmental Justice	No disproportionately high and adverse effect on EJ populations.	No mitigation
Public Health, Safety and Security	Increased public safety along at-grade crossings.	No mitigation
Transportation and Energy Use	Increase in efficiency would reduce rail and road congestion and energy consumption.	No mitigation, positive impact.

**Table 1: Summary of Impacts and Mitigation Measures**

<b>Resource</b>	<b>Build Alternative Anticipated Impacts</b>	<b>Build Alternative Mitigation Measures</b>
Construction Period Impacts	Minor water quality, air, noise, and private crossing impacts anticipated during construction.	Soil erosion best management practices to reduce water quality issues, well maintained equipment to reduce air and noise impacts and coordination with property owners with private crossing prior to construction are proposed.
Indirect and Cumulative Impacts	Minor indirect and cumulative impacts.	No mitigation

## 1.0 Introduction

Aberdeen Carolina & Western Railway (ACWR) is a short line regional railroad company located in central North Carolina. Existing facilities include approximately 140 miles spanning six counties including Mecklenburg, Cabarrus, Stanly, Montgomery, Moore, and Chatham Counties.

ACWR is proposing to use Federal Railroad Administration (FRA) Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program and Railroad Rehabilitation and Improvement Funding (RRIF) to administer a congestion mitigation project. Due to the use of federal funds, the Proposed Action must comply with the National Environmental Policy Act (NEPA) of 1969. To document the Proposed Action and its effects on the natural, cultural, and social environment, the Federal Railroad Administration (FRA) has prepared this Environmental Assessment (EA). The Proposed Action includes the construction of new facilities at five (5) locations. The five Sites include three (3) storage and passing sidings, two (2) storage and switching yards, and one (1) warehouse (see [Figure 1](#)). The purpose of the Proposed Action is to address congestion issues on the existing railroad. All construction activities would take place within existing ACWR railroad right-of-way (ROW) or on land owned by ACWR<sup>2</sup>.

*The National Environmental Policy Act (42 USC 4321 et seq) requires federal agencies, in this case FRA (23 CFR Part 771.119), to consider the impacts of their actions on the natural, social, economic, and cultural environments and to disclose considerations in a public document. The NEPA process is intended to help public officials make decisions based on an understanding of the environmental consequences and to take actions that protect, restore, and enhance the environment (40 Code of Federal Regulations (CFR) Part 1500.1).*

The congestion mitigation project will be referred to as the Proposed Action throughout this EA. Each of the five locations will be referred to as the Sites on an individual basis. The five Sites comprise the Study Area. Environmental resources have been assessed within and adjacent to the Study Area, please see Section 1.3 for more information on the Study Area.

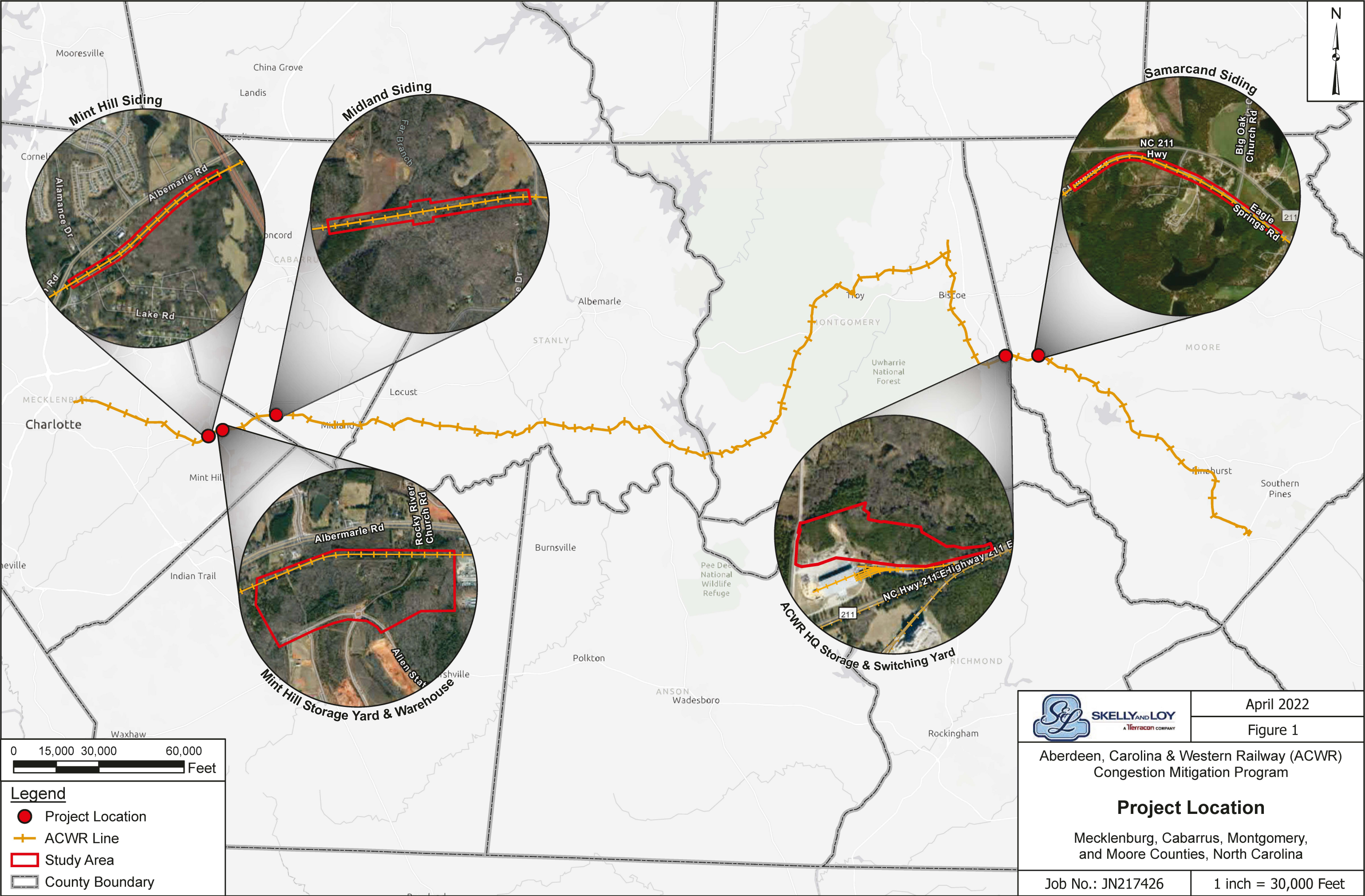
### 1.1 Project Background


ACWR is a family-owned and operated railway. The Menzies family bought the freight railroad in 1987 with one locomotive and three customers. The ACWR currently serves approximately 18 industries moving plastics, grain, lumber, wood chips, aggregate, brick, butane, ethanol, propane and many other products. Other services beyond freight transportation include transloading, locomotive and rail car repairs, and industrial site development. ACWR's existing facilities include 140 miles of track, switching yards, storage and passing facilities, and industrial sites, along with the necessary maintenance equipment.

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<sup>2</sup> The project sponsor (ACWR) owns or will own the Study Area when construction is proposed to commence. Portions of the Study Area are owned currently by ACWR through its subsidiaries, Mint Hill Industrial, LLC and ACWR Shops, LLC. Further, ACWR operates the existing rail line and is in the process of purchasing it from Norfolk Southern. This acquisition was approved via Categorical Exclusion in 2021. For simplicity, ACWR is referred to as the owner of the Study Area throughout the EA.





 <b>SKELLY AND LOY</b> <small>A TERRACON COMPANY</small>	April 2022
	Figure 1
<b>Aberdeen, Carolina &amp; Western Railway (ACWR) Congestion Mitigation Program</b>	
<b>Project Location</b>	
Mecklenburg, Cabarrus, Montgomery, and Moore Counties, North Carolina	
Job No.: JN217426	1 inch = 30,000 Feet

The Proposed Action would add passing sidings, storage yards, and a warehouse near Mint Hill and Candor, NC. Additional switching tracks would be used to perform the sorting and re-ordering of railcars due to recent Precision Scheduled Railroading (PSR) traffic pattern changes and to sufficiently process traffic with CSX and Norfolk Southern. The addition of new switching yards and passing siding tracks would allow for more locations to perform switching activities and allow trains to pass. This would reduce operational inefficiencies, increase equipment cycle times, and avoid issues of congestion and blockage of road crossings. A warehouse and distribution facility would offer direct access to rail, avoiding additional highway congestion while providing affordable rail-served space to facilitate growth of rail-based transportation.

## 1.2 Project Description

A description of the Proposed Action activities and summary of adjacent land use is provided below. For more information on the Proposed Action, please see Section 3.2.

### **Mint Hill, North Carolina [Mecklenburg County]**

***Mint Hill Siding*** – Proposed Action activities at this location include the construction of 5,000 track feet of new storage and passing siding along the existing railroad located between Albemarle Road and I-485. The rail right-of-way in this location varies between 150 to over 200 feet wide with a general clear zone of 50 feet. Surrounding land use is mainly wooded with sparse, large lot residential development. All work would be completed within the existing railroad right-of-way (ROW) owned by ACWR.

***Mint Hill Storage Yard and Mint Hill Warehouse*** – Proposed Action activities at this location include the construction of new storage track spurs and a warehouse on a 66-acre property located along Allen Station Road. Construction activities include grading for new roads, a parking area, loading docks, eight new storage track spurs totaling 18,000 track feet, stormwater basins, and an approximately 200,000-400,000 square-foot warehouse. The parcel is woodland located in a quickly developing area. Previous infrastructure remains on the property, including utilities, road grading, and stormwater basins. Surrounding land uses include Rocky River High School and Hope Community Fellowship, along with commercial and medium to high density residential developments. All work would be completed on land owned by ACWR.

### **Midland, North Carolina [Cabarrus County]**

***Midland Siding*** – Proposed Action activities at this location include the construction of 3,100 track feet of new storage and passing siding approximately 2 miles east of Midland. The surrounding land use is mainly wooded. The rail ROW in this location is approximately 120 feet wide with a bump out at a stream crossing to approximately 200 feet wide. The track is on fill through this section with a general clear zone of 50 feet. All work at this location would take place within the existing railroad ROW owned by ACWR.

### **Aberdeen Carolina & Western Railway Headquarters, Candor, North Carolina [Montgomery County]**

***ACWR HQ Storage Yard*** – Proposed Action activities at this location include the construction of 12 new storage track spurs totaling up to 20,000 track feet located north of the existing ACWR headquarters building. The area is currently cleared. Surrounding land use includes wooded and agricultural land. All work would be completed on land owned by ACWR.



## **Samarcand and Eagle Springs, North Carolina [Moore County]**

***Samarcand Siding*** – Proposed Action activities at this location include the construction of 7,000 track feet of new double ended passing and storage siding along the existing railroad. The rail ROW in this location is approximately 100 feet wide with a general clear zone of 50 feet. Surrounding land use is wooded and agricultural intermixed with residential development. All work would be completed within the existing railroad ROW owned by ACWR.

### **1.3 Study Area**

The Study Area comprises five Sites divided between the vicinity of Charlotte and the town of Candor, a more rural area approximately 70 miles to the east. The Proposed Action would take place either within existing rail ROW or industrial property adjacent to rail ROW, all of which is owned by ACWR. Mint Hill Siding, Midland Siding, and Samarcand Siding Study Areas are located within existing railroad ROW, while the Mint Hill Storage Yard and Warehouse and ACWR HQ Storage Yard Sites are located on industrial properties adjacent to the railroad ROW. The Study Area is wholly contained within existing rail ROW or on land owned by ACWR; no land or building acquisition or demolition would be necessary for the Proposed Action.

The Study Area consists of 134 acres comprised of the locations described below and shown on [Figure 2](#):

***Mint Hill Siding*** - The Mint Hill Siding Site is located within the existing railroad ROW. The Study Area is approximately 5,000 feet long and 300 feet wide (125 feet off centerline of the existing rail). The area totals approximately 35 acres.

***Mint Hill Storage Yard and Warehouse*** – The Mint Hill Storage Yard and Warehouse Site is located on land owned by ACWR. The area is the entire parcel which is approximately 66 acres.

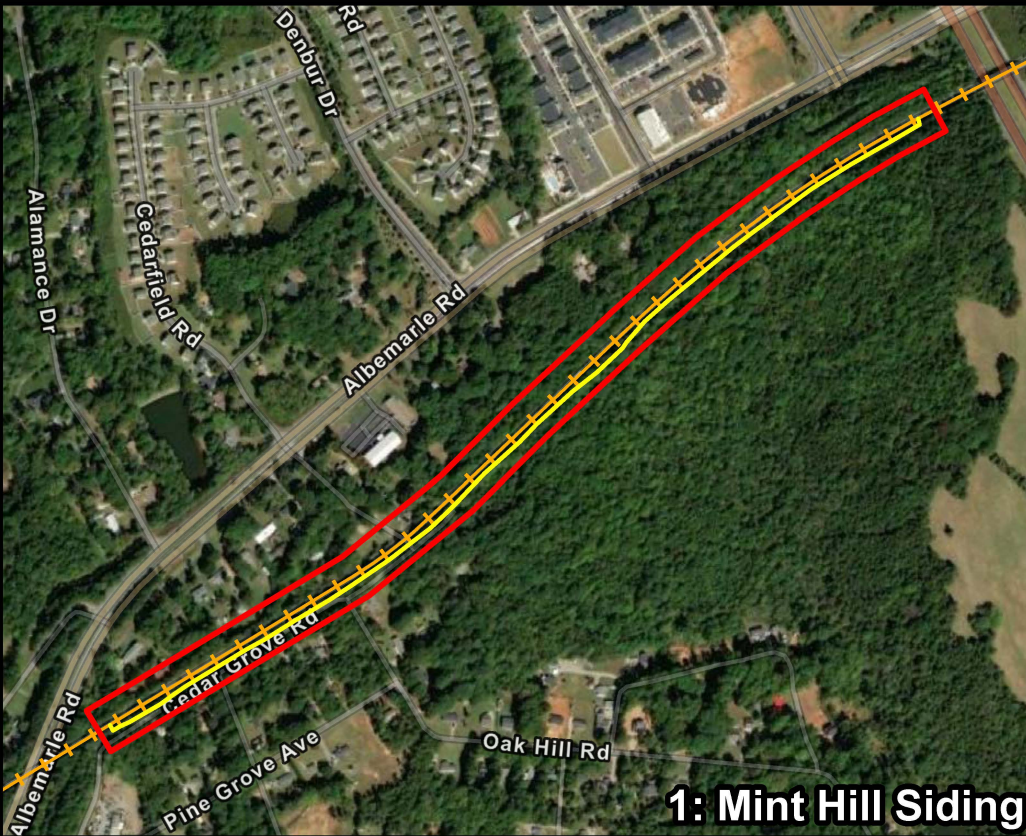
***Midland Siding*** - The Midland Siding Site is located within the existing railroad ROW. The Study Area is approximately 3,500 feet long and 300 feet wide (125 feet off centerline of the existing rail with an expansion around the stream crossing to 200 feet). The area totals approximately 24 acres.

***ACWR HQ Storage Yard*** – The ACWR HQ Storage Yard Site is located on the existing ACWR HQ property shown as the Limit of Disturbance (LOD) for the Proposed Action under this grant program, including approximately 25 acres.

***Samarcand Siding*** - The Samarcand Siding Site is located within the existing railroad ROW and totals approximately 45 acres. The Study Area is approximately 7,000 feet long and 300 feet wide (125 feet off centerline of the existing rail).

Detailed project mapping including the Location Map, Study Area and Limit of Disturbance Maps, along with Impact Maps, can be viewed in [Appendix A](#).





1: Mint Hill Siding



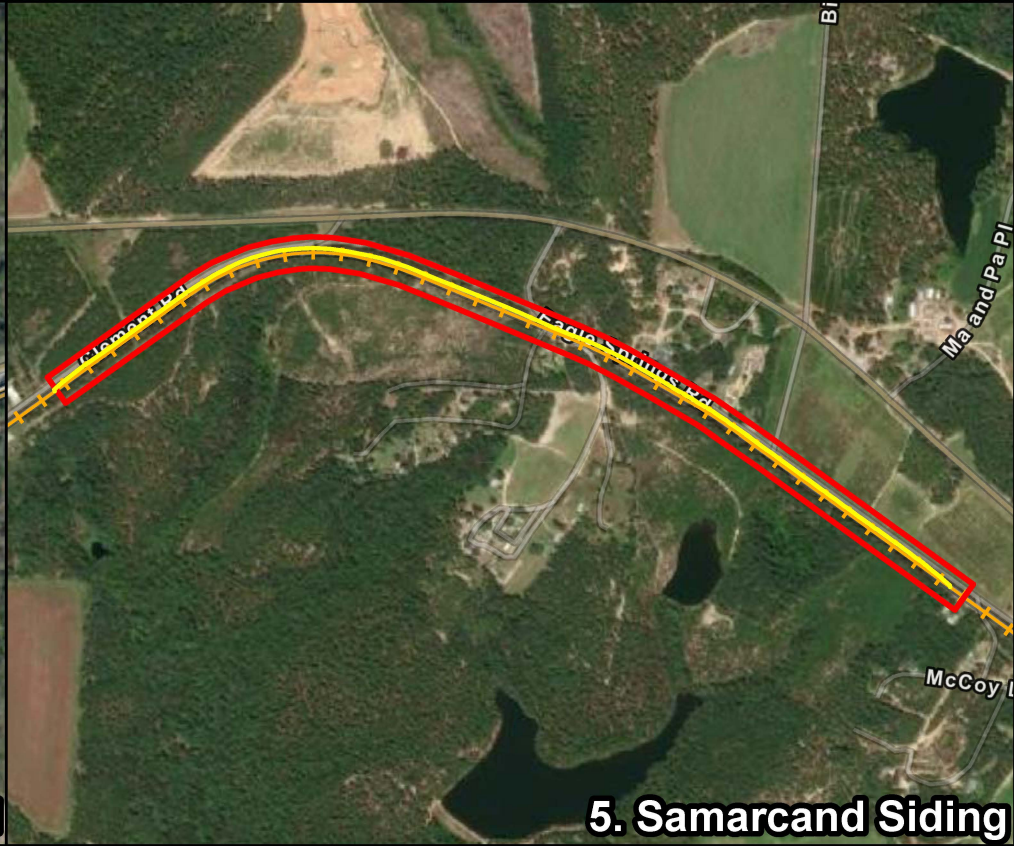
2. Mint Hill Storage Yard and Warehouse



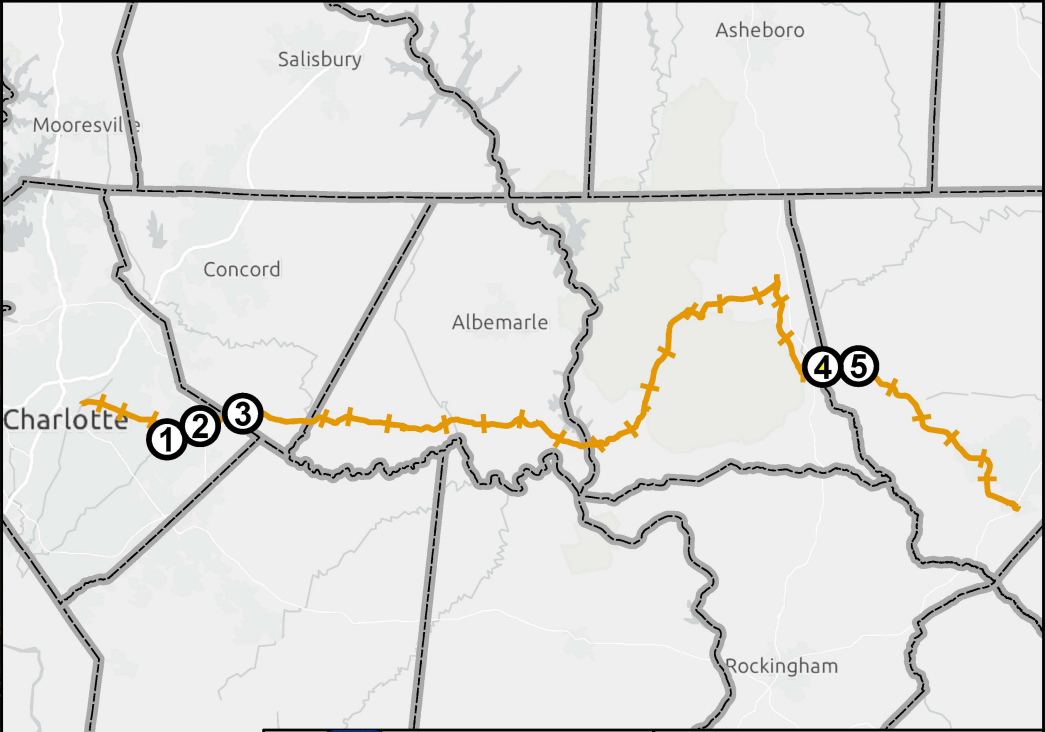
3. Midland Siding



4. ACWR HQ Storage & Switching Yard



5. Samarcand Siding



Legend

- Project Location
- + ACWR Line
- ▭ Study Area
- ▭ Limit of Disturbance
- ▭ County Boundary

Data Sources:  
ESRI Community Map Contributions  
State of North Carolina DOT



Aberdeen, Carolina & Western Railway (ACWR)  
Congestion Mitigation Program

**Proposed Action**  
**Study Area and Limits of Disturbance**  
Mecklenburg, Cabarrus, Montgomery,  
and Moore Counties, North Carolina

Job No.: JN217426      Map Scale as Shown



## 1.4 Other Actions in the Study Area

In addition to the Proposed Action, a separate rehabilitation project is proposed along the ACWR line. The proposed project includes replacement and rehabilitation of existing ties, bridge ties, switch ties and rail; re-decking of bridges; tamping, regulating and surfacing existing track and roadway; and addition of ballast. Proposed improvements would bring the overall system into a state of good repair by restoring badly degraded infrastructure. Additionally, the infrastructure upgrade would re-establish speeds on the line from the reduced 10 mph to the original 25 mph and bring the line back up to an FRA Class II track standard (from an FRA Class I track standard). This work is being cleared under a separate NEPA Categorical Exclusion document.

## 2.0 Purpose and Need

The purpose of the Proposed Action is to address existing congestion along ACWR's railroad line. Reducing congestion would improve viability and long-term sustainability of freight rail service from Charlotte to Raleigh. Elements of the Proposed Action that reduce congestion and enhance viability include:

- Increased storage to reduce mainline congestion (storage and passing sidings)
- Additional switching tracks to sort and re-order railcars (switching and storage yards)
- Additional rail-served warehouse within metropolitan area (warehouse)

The project need is due to increased congestion, increased demands related to Precision Scheduled Railroading (PSR) operational changes, and a lack of rail-served industry in the Charlotte MSA. The needs are further detailed below.

### Congestion

**Traffic Patterns** – An increase in unit train traffic coming from Charlotte to Candor creates congestion on the existing rail line. Inadequate tracks to clear the mainline for westbound traffic results in a half-day delay for eastbound traffic. Currently, westbound traffic is delayed for half a day to wait for eastbound traffic to clear the mainline. The additional storage and passing sidings would allow for better flow of traffic with shipments coming from three interchanges by three different railroads. Additionally, storage and passing sidings would improve system and service performance on the Piedmont and Sandhills Divisions by reducing the congestion caused by the need to store cars on the mainline. By adding sidings and yards, the project would increase ACWR capacity, mitigate traffic congestion, improve equipment cycle time, drastically reduce mainline track blockages, and provide adequate track space for increased switching activities.

**Storage** – At any one time, the existing rail line may have up to five 90-car trains on the line which must be staged and temporarily stored. This has caused frequent congestion, blocking of road crossings, service delays, and inefficiencies for traincrews. The current PSR climate has forced shippers to store fewer railcars on Class I's and more railcars on shortline railroads. The ACWR line has had over 750 railcars stored on the mainline at estimated peak levels. Additional storage yards will provide much needed congestion relief along the ACWR line.

**Sorting and Reordering** – Increased inbound miscellaneous commodity traffic requires frequent switching and re-ordering for customers. Multiple switches are required per day for commodities that must be delivered in a sequential order as requested by the customer. The ACWR needs additional switching tracks to perform the sorting and re-ordering of railcars due to recent traffic pattern changes, and it struggles

operationally to find places to perform such switching activities. This would enhance the railroad's productivity by reducing operational inefficiencies, increasing equipment cycle times to avoid congestion issues and blockage of road crossings, which increases service delays and inefficiencies for train crews.

### Operational Changes

The ACWR is required to sequence outbound loads in order of each railcar's end destination. Additionally, Class I railroad companies have begun to use interchange yards to perform their own switching instead of traditional hump yards. The ACWR struggles operationally to find places to perform such switching activities.

### Rail-served Industry

Charlotte MSA's growth and lack of viable rail-served buildings add to commercial traffic on the highway system and have increased industrial rental rates to all-time highs. There are repeated requests from existing and prospective rail customers for a modern rail-served warehouse and distribution facility in the area. Current raw plastics customers require covered square footage to manipulate bulk products into various smaller packaging forms. A warehouse and distribution facility would offer direct access to rail, avoiding additional highway congestion while providing affordable rail-served space to facilitate growth of rail-based transportation.

## 3.0 Alternatives

This EA includes the review of two alternatives, the No-Build Alternative and Build Alternative. The No-Build Alternative constitutes the "Do Nothing" Alternative where none of the proposed improvements would be constructed. Each alternative is described below.

### 3.1 No-Build Alternative



The No-Build Alternative involves taking no action to improve congestion on the ACWR line. The existing rail line would remain operational in its existing configuration. Regularly scheduled maintenance activities would continue to take place. The No-Build Alternative would fail to meet the purpose and need for the Proposed Action, and congestion on the railroad would continue to impact operations. A No-Build Alternative is included in this EA as a baseline to compare potential impacts with the Build Alternative.

### 3.2 Build Alternative



The Build Alternative includes the improvements at the five Sites as summarized in [Table 2](#). Table 2 provides a summary of proposed activities along with a map of the Study Area and a photo for each Site. Detailed mapping of the Build Alternative is included in [Appendix A](#). The Build Alternative would meet the project's purpose and need.



**Table 2: Build Alternative Details**

Proposed Activities	Location
<p><b>Mint Hill Siding</b></p> <p>Construction of 5,000 track feet of new storage and passing siding along the existing railroad located between Albemarle Road and I-485. This work would include minor earth work (fill) to establish the grading necessary to construct the additional track. Construction of this siding would be minor in intensity and short in duration, with construction anticipated to take approximately 3 months. The existing rail would remain operational during construction.</p>	  <p>Mint Hill Siding looking west at HWY 24/27 bridge.</p>

**Table 2: Build Alternative Details**

Proposed Activities	Location
<p><b>Mint Hill Storage Yard and Warehouse</b></p> <p>Construction of new storage track spurs and warehouse on a 66-acre property located along Allen Station Road. Construction activities include grading for new roads, parking area, loading docks, 8 new storage track spurs totaling 18,000 track feet, stormwater basins, and an approximate 200,000-400,000 square-foot warehouse. This work would include earth work (cut and fill) to establish the grading necessary to construct the storage yard, warehouse, parking and road network along with stormwater facilities. Construction of this storage yard and warehouse would be moderate in intensity and duration, with construction anticipated to take approximately 18 months. The existing rail would remain operational during construction.</p>	 <p><b>2. Mint Hill Storage Yard and Warehouse</b></p>  <p>Mint Hill Warehouse site, looking north.</p>



**Table 2: Build Alternative Details**


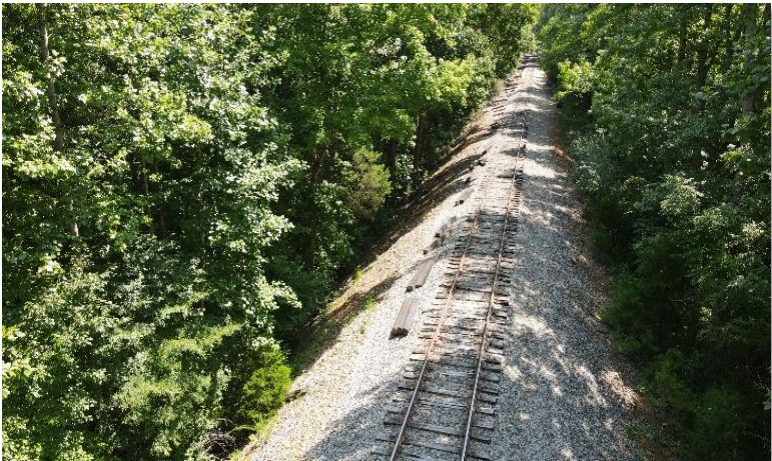




Proposed Activities	Location
<p><b>Midland Siding</b></p> <p>Construction of 3,100 track feet of new storage and passing siding approximately 2 miles east of Midland, NC. This work would include moderate earth work (fill) to establish the grading necessary to construct the additional track. Two culvert pipes would be extended to accommodate the additional fill slope. Construction of this siding would be minor in intensity due to minimal disturbance and earth work within ROW and short in duration, with construction anticipated to take approximately 3 months. The existing rail would remain operational during construction.</p>	 <p><b>3. Midland Siding</b></p>  <p>Midland site, looking east.</p>

Table 2: Build Alternative Details

Proposed Activities	Location
<p><b>ACWR HQ Storage Yard</b></p> <p>Construction of 12 new storage track spurs totaling 20,000 track feet located north of the existing ACWR headquarter building. This work would include minor earth work (cut and fill) to establish the grading necessary to construct the storage yard. Construction of this storage yard would include earthwork and stormwater facilities. The work would be minor in intensity and duration, with construction anticipated to take approximately 6 months. The existing rail would remain operational during construction.</p>	 <p><b>4. ACWR HQ Storage &amp; Switching Yard</b></p>  <p>ACWR Storage Yard, looking east.</p>



**Table 2: Build Alternative Details**

Proposed Activities	Location
<p><b>Samarcand Siding</b></p> <p>Construction of 7,000 track feet of new double ended passing and storage siding along the existing railroad. This work would include minor earth work (fill) to establish the grading necessary to construct the additional track. Construction of this siding would be minor in intensity and short in duration, with construction anticipated to take approximately 3 months. The existing rail would remain operational during construction.</p>	 <p><b>5. Samarcand Siding</b></p>  <p>Samarcand Siding, looking east.</p>

## 4.0 Affected Environment and Environmental Consequences

This chapter describes the existing conditions within the Study Area and identifies the potential impacts to environmental resources from implementing the alternatives as well as mitigation measures to offset impacts. This EA addresses those resources that have the potential to be affected by the Proposed Action. Resources covered in this section are grouped into the following areas: natural environment, human environment, construction period impacts, and indirect and cumulative impacts.

The **natural environment** includes subjects like air and noise, farmland and forest, wetlands and water resources, and threatened and endangered species.

The **human environment** includes subjects like cultural and historic resources, parks and recreation, hazardous waste, land use and demographics, public health and safety, and transportation.

**Construction period impacts** relate to the temporary impacts that may result during the building process.

**Indirect impacts** are those impacts that are further removed in time or space while **cumulative impacts** represent an accumulative impact to a resource.

Existing environmental resources vary greatly by Site. The Sites within existing rail ROW are currently in transportation use while the Sites adjacent to the rail ROW are undeveloped tracts of land comprised of forests, streams, and wetlands.

The following sections will discuss the Build Alternative's impact on the environment. The No-Build Alternative would have minimal, if any, impacts and is briefly mentioned in each resource section.

To keep this document concise, detailed information, where applicable, can be found in the Appendices.

### 4.1 Resources Not Included in the Analysis

Through initial investigation and background research it was determined that the following resources do not have a reasonable likelihood to be beneficially or adversely affected by the Proposed Action and, therefore, will not be evaluated further:

**Coastal Zone Management** – The Study Area is not within a coastal zone.

**Floodplains** – The Study Area does not contain floodplains.

**Geology and Seismic Issues** – Due to the limited scope of work, no geologic or seismic analysis was completed.

**Aesthetics and Visual** – There would be no impacts to resources that would require aesthetics to be considered.

**Natural Ecological Systems** – Due to the limited scope of work and previously disturbed areas within the Study Area, there would be no impacts to natural ecological systems. Consideration of habitats takes place in the Threatened and Endangered Species section.

**Irreversible Commitment of Natural Resources** – The use of nonrenewable resources would represent a minimal portion of the region's resources and would not affect the accessibility of these resources within the region.

**Wild and Scenic Rivers** – There are no Wild or Scenic Rivers in or adjacent to the Study Area.



## 4.2 Natural Environment

The purpose of this section is to describe the characteristics of the natural environment within the area affected by the Proposed Action.

### 4.2.1 Air Quality, Greenhouse Gases, and Climate Change

#### Identification

The US Environmental Protection Agency (US EPA) established National Ambient Air Quality Standards (NAAQS) for six commonly found air pollutants (criteria pollutants) in the Clean Air Act (CAA). US EPA's General Conformity Rule (40 CFR Part 93 Subpart B) ensures that federal actions comply with the NAAQS and requires the lead federal agency to demonstrate that every action it undertakes, approves, permits or supports conforms to the appropriate State Implementation Plan (SIP). Federal agencies responsible for an action occurring in a nonattainment area are required to determine if the action conforms to the applicable SIP. The CAA General Conformity Rule (GCR) requires that any federal action does not create a new violation of NAAQS or delay the timely attainment of any NAAQS or milestones in the state's SIP.

A federal action is exempt from the GCR requirements if the action's total net emissions are below the *de minimis* threshold or are otherwise exempt per 40 CFR 51.153. There are two main components to the overall process: an applicability analysis to determine whether a conformity determination is required and, if required, a conformity determination to demonstrate that the action conforms to the SIP.

Mecklenburg County is in maintenance for NAAQS criteria pollutants Ozone and Carbon Monoxide. Cabarrus County is in maintenance for Ozone. Montgomery County and Moore County are in attainment for all criteria pollutants and therefore are not included in this analysis.

*Criteria pollutants are Carbon Monoxide (CO), Ozone, Particulate Matter (PM), Nitrogen Dioxide (NO<sub>2</sub>), Sulfur Dioxide (SO<sub>2</sub>) and Lead (Pb).*

*If the air quality in a geographic area meets or is cleaner than the national standard, it is called an attainment area. Areas that don't meet the national standard are called nonattainment areas. Once a nonattainment area meets the standards and additional re-designation requirements in the CAA, US EPA will designate the area as a "maintenance area".*

An applicability analysis was performed for the Build Alternative to demonstrate conformity with the CAA. As the Conformity Regulations apply only to pollutants or their precursors that are emitted in designated nonattainment or maintenance areas, annual emissions for construction activities and post-construction operations were estimated for the Sites occurring in areas designated as nonattainment or maintenance. For the Mint Hill Siding and the Mint Hill Storage Yard & Warehouse, located in Mecklenburg County, an emissions inventory for carbon monoxide and precursors to ozone (volatile organic compounds [VOC], oxides of nitrogen [NO<sub>x</sub>]) was prepared. For the Midland Siding, located in Cabarrus County, an emissions inventory for precursors to ozone (VOC, NO<sub>x</sub>) was prepared. As Montgomery County and Moore County are in attainment for all criteria pollutants, emissions inventories for the ACWR HQ Storage Yard and the Samarcand Siding are not required.

An emissions inventory for all construction equipment to be used for grading and track construction at Mint Hill Siding, Mint Hill Storage Yard and Warehouse, and Midland Siding was prepared, including

dozers, excavators, front end loaders, dump trucks, backhoes, and various other construction and utility equipment. Annual emissions for the equipment were calculated in pounds per year (lbs/year) by applying an equipment specific emissions factor to the estimated annual usage for each piece of equipment. Emissions were estimated using “Off-Road – Model Mobile Source Emission Factors” for the year 2022 from the California South Coast Air Quality Management District (SCAQMD, 2020) as federal US EPA emission factors were not available.

Emissions from operations within the Study Area was calculated by applying locomotive and heavy-duty truck emission factors to estimated annual usage of each of these facilities. Emissions from operations at Mint Hill and Midland Sidings and the Mint Hill Storage Yard and Warehouse were calculated by applying US EPA average locomotive and heavy-duty truck emission factors (US EPA-420-F09-025 Emission Factors for Locomotives and US EPA-420-F-08-027 Average In-Use Emissions from Heavy-Duty Trucks) to estimated annual usage at each of these facilities. For the Mint Hill and Midland Sidings and the Mint Hill Rail Yard, annual locomotive usage was estimated based on the length of the new rail, the number of daily trips, the number of locomotives, and the speed of the trains over the distance of new rail. For operations at the Mint Hill Warehouse, tractor trailer emissions were estimated based on an assumed usage of 200 miles per day per truck. Electric forklifts would be used for loading and unloading of trucks.

### Impacts and Mitigation

Impacts associated with the Build Alternative are provided below. **Table 3** presents the annualized total criteria pollutant emissions in tons per year (tpy) associated with both construction and operations for the Mint Hill Siding and Mint Hill Storage Yard and Warehouse proposed in Mecklenburg County. EPA’s *de minimis* emission threshold is 100 tpy.

Table 3: Total Criteria Pollutant Emissions - Mecklenburg County				
Facility	Emissions Generating Activity	CO (tpy)	VOC (tpy)	NO <sub>x</sub> (tpy)
Mint Hill Siding	Construction	0.7	0.2	1.8
	Operations	0.7	0.3	4.9
Mint Hill Rail Yard	Construction	1.5	0.3	3.5
	Operations	0.4	0.2	2.8
Mint Hill Warehouse	Construction	2.6	0.5	5.0
	Operations	1.9	0.4	7.4
Total Annual Estimated Project Emissions (tpy)		7.8	1.9	25.4
EPA <i>de minimis</i> emission levels (tpy)		100	100	100

**Table 4** presents the annualized total criteria pollutant emissions in tons per year associated with both construction and operations for the Midland Siding proposed in Cabarrus County.

**Table 4: Total Criteria Pollutant Emissions - Cabarrus County**

Facility	Emissions Generating Activity	VOC (tpy)	NO <sub>x</sub> (tpy)
Midland Siding	Construction	0.2	1.7
	Operations	0.2	3.3
Total Annual Estimated Project Emissions (tpy)		0.4	5.0
EPA <i>de minimis</i> emission levels (tpy)		100	100

Based on the data presented in [Tables 3 and 4](#), none of the criteria pollutant emissions concentrations for the proposed Sites in Mecklenburg County or Cabarrus County are predicted to exceed the General Conformity *de minimis* threshold limits and a formal General Conformity Determination is not needed. No mitigation is required.

The No-Build Alternative would not alter existing conditions as no additional emissions associated with construction activities or from proposed changes in train operations would occur. Under No-Build conditions, a slight increase in emissions could potentially occur over time due to a decrease in train speeds as a result of increased congestion along the rail lines.

#### ***Greenhouse Gases and Climate Change***

The assessment of a proposed transportation improvements' effects on greenhouse gas (GHG) emissions, including potential increases and reductions to the contributing gases (such as carbon dioxide [CO<sub>2</sub>]), is complex and is typically evaluated on a regional level. The Council on Environmental Quality (CEQ) recognizes that transportation has been identified as one of the primary sources of GHG emissions because of the combustion of fossil fuels such as gasoline and diesel used by motorized vehicles. Final guidance from the CEQ on consideration of greenhouse gas emissions and the effects of climate change is currently under review.

CO<sub>2</sub> makes up the largest component of GHG emissions. Other prominent transportation GHGs include methane (CH<sub>4</sub>) and NO<sub>x</sub>. Currently, no national standards have been established regarding GHGs, nor has the US EPA established criteria or thresholds for ambient GHG emissions pursuant to its authority to establish transportation emission standards for CO<sub>2</sub> under the CAA. GHGs are different from other air pollutants evaluated in federal environmental reviews because their impacts are not localized or regional due to their rapid dispersion into the global atmosphere, which is characteristic of these gases. GHG emissions affect the entire planet.

The Build Alternative would reduce road and rail congestion thereby reducing GHG emissions. Shifting freight from less efficient highway and/or air travel to more efficient rail movement would have a positive impact by reducing GHG emission. While there are some offsetting increases in emissions from the additional operations of the rail and transit vehicles, a net improvement is anticipated. The GHG emissions levels resulting from the Proposed Action are not expected to cause an increase in overall GHG emissions and therefore detailed analysis is not warranted. No mitigation is required.

The No-Build Alternative would have a negative impact on GHG emissions by allowing the congestion and less efficient travel to continue.

## 4.2.2 Noise and Vibration

### Identification

Due to the nature and scope of the storage passing and sidings, a review of environmental exclusions listed within the Code of Federal Regulations (CFR) was performed. Although the FRA is the designated Federal lead agency responsible for the environmental review for the Proposed Action, per 23 CFR Part 771.116(d), FRA may approve an action qualifying as a categorical exclusion under the Federal Transit Administration (FTA) environmental regulations (23 CFR Part 771.118) when the applicable requirements of those sections have been met. Mint Hill Siding, Midland Siding and Samarcand Siding would be constructed within existing ROW for temporary storage of trains. The proposed sidings would occupy substantially the same geographic footprint (within rail ROW) and do not change the functional use of the rail; therefore, the sidings are exempt from a noise and vibration analysis as described in 23 CFR Part 771.118(c):

*Actions that FTA determines fall within the following categories of FTA CEs and that meet the criteria for CEs in the CEQ regulation (40 CFR 1508.4) and paragraph (a) of this section normally do not require any further NEPA approvals by FTA. (8) Maintenance, rehabilitation, and reconstruction of facilities that occupy substantially the same geographic footprint and do not result in a change in functional use, such as: Improvements to bridges, tunnels, storage yards, buildings, stations, and terminals; construction of platform extensions, passing track, and retaining walls; and improvements to tracks and railbeds.*

No further analysis is required.

In accordance with the FTA Transit Noise and Vibration Impact Assessment Manual (September 2018), a noise and vibration Impact Analysis was followed for Mint Hill Storage Yard and Warehouse and ACWR HQ Storage Yard. The process includes three types of analyses including a screening analysis, a general analysis or a detailed analysis. The screening analysis involves identification of the Study Area, which is based on the appropriate screening distance for the project type. If no noise-sensitive land uses are identified within the Study Area, no further analysis is needed. If one or more noise-sensitive land uses are identified within the Study Area, a general noise assessment is required. A general noise assessment involves identification of noise sensitive receptors and use of FTA's noise calculation model to analyze project noise. Should the project fall under the threshold, no further analysis is required. Projects that are not exempted during the screening or general assessment analysis stage would require detailed noise analysis which could entail actual monitoring sites and modeling of proposed noise levels.

A screening analysis was conducted for ACWR HQ Storage Yard. In accordance with the FTA Transit Noise and Vibration Assessment Manual Table 4-7, a screening distance of 1,000 feet from the proposed rail yard's LOD was evaluated to determine the existence of noise-sensitive land uses. As no noise-sensitive land uses were identified within 1,000 feet of the center of the LOD, no further noise or vibration assessment is required. Therefore, the only Site that required a General Noise and Vibration Analysis is the Mint Hill Storage Yard and Warehouse.

### Mint Hill Storage Yard and Warehouse

In accordance with the FTA Transit Noise and Vibration Assessment Manual Table 4-7, a screening distance of 1,000 feet from the proposed rail yard's LOD was evaluated to determine the existence of noise-sensitive land uses. Three noise-sensitive land uses were identified within 1,000 feet of the proposed LOD:

two Land Use Category 2 (Residential) properties and one Land Use Category 3 (Institutional) property. **Table 5** presents a description of these land uses and their respective distances from both the existing rail line, the proposed rail yard, and the proposed LOD of the development site.

Table 5: Existing Noise Exposure

Receiver ID	Description	Land Use Category	Noise Metric (dBA)	Distance from Existing Rail Line (ft)	Distance from Proposed Rail Yard (ft)	Distance from Proposed LOD (ft)	Estimated Existing Ambient Noise (dBA)	Calculated Existing Rail Noise Exposure (dBA)	Total Existing Noise Level (dBA)
1	12416 Albemarle Rd	Category 2 (Residential)	Outdoor Ldn	240	1,230	860	60	46	60
2	12530 Albemarle Rd	Category 2 (Residential)	Outdoor Ldn	215	595	275	60	46	60
3	Rocky River High School athletic field	Category 3 (Institutional)	Outdoor Leq (1 hr)	1,000	1,150	110	55	36	55

The existing noise exposure level for each of the receivers was determined by estimating the ambient noise level (column 8 of Table 5). This estimated ambient noise level excludes existing rail noise exposure and represents the highway traffic noise influence of nearby North Carolina Highway 27 (NC 27) and I-485 upon each of the receivers. Highway traffic noise from NC 27 is the dominant noise source at Receivers 1 and 2, located within 100 feet of the eastbound lanes of NC 27, with additional noise influence from I-485 traffic noise, approximately 1,600 feet west of these residences. The existing noise level at Receiver 3 is influenced by a mix of traffic noise levels from both NC 27 and I-485. The northernmost Rocky River High School athletic field is located approximately 1,500 away from each of these highway traffic noise sources.

Existing rail noise exposure levels were calculated using the FTA Noise Impact Assessment Spreadsheet (column 9) and logarithmically added to the estimated traffic noise, yielding a total existing noise level (column 10). Existing rail operations consist of (on average) 2 daytime pass-bys with 2 diesel locomotives per train, 20 rail cars, at a speed of 10 mph on jointed track.

### Impacts and Mitigation

Rail noise exposure levels as a result of the Proposed Action were calculated with the FTA Noise Impact Assessment Spreadsheet using the Noise Source Parameters associated with each of the Site's noise sources. Proposed rail operations within the rail yard would consist of 2 nighttime activity periods with 2 diesel locomotives per train, 15 rail cars (dropping off loads and picking up empties), at a speed of 5 mph on jointed track.

As the receivers are currently exposed to rail noise, noise impact criteria for these receivers considers the cumulative effect of both the existing noise and the proposed noise from the Proposed Action at each receiver. As the existing level of ambient noise increases, the allowable level of project noise also increases, but the total amount that the cumulative noise exposure is allowed to increase is reduced. For Receiver 1, with an existing noise exposure level of 60 dBA, the allowable combined total noise exposure before a moderate impact is 62 dBA. The same moderate impact criteria of 62 dBA applies to Receiver 2, also with an existing noise exposure level of 62. The allowable combined total noise exposure before a moderate impact for Receiver 3, with an existing noise exposure level of 55 dBA, is 58 dBA.

**Table 6** presents the calculated project noise exposure levels (column 9), the cumulative total noise exposure levels (column 10), and the moderate impact criteria level (column 11) for each of the receivers. Cumulative total noise exposure levels are below moderate impact criteria for all 3 noise-sensitive land uses. Therefore, there would be no adverse noise effects from the operation of the Proposed Action. No mitigation is required.

**Table 6: Proposed Action Noise Exposure**

Receiver ID	Description	Land Use Category	Noise Metric (dBA)	Distance from Existing Rail Line (ft)	Distance from Proposed Rail Yard (ft)	Distance from Proposed LOD (ft)	Total Existing Noise Level (dBA)	Project Noise Exposure (dBA)	Total Noise Exposure (dBA)	Allowable Total Noise Exposure Before Moderate Impact (dBA)	Impact Magnitude
1	12416 Albemarle Rd	Category 2 (Residential)	Outdoor Ldn	240	1,230	860	60	48	60	62	None
2	12530 Albemarle Rd	Category 2 (Residential)	Outdoor Ldn	215	595	275	60	53	61	62	None
3	Rocky River High School athletic field	Category 3 (Institutional)	Outdoor Leq (1 hr)	1,000	1,150	110	55	37	55	58	None

Construction of the proposed project would result in temporary increases in the ambient noise levels in the vicinity of the project. Excavation and grading of the development site, which would involve construction activity along the perimeter of the development site LOD is expected to take between 60 and 70 days. Worst-case construction noise levels were estimated using the Federal Highway Administration’s (FHWA) “Roadway Construction Noise Model (RCNM)” to calculate a cumulative construction noise level at the shortest distance between each of the noise-sensitive receivers and the LOD, assuming all excavating, grading, surfacing, and paving equipment in operation at the same time at the same location.

The loudest cumulative construction noise level predicted with RCNM for Receiver 1, calculated at a distance of 860 feet from the LOD is 60 dBA. The construction noise levels for Receivers 2 and 3, at distances of 275 feet and 110 feet from the LOD, were predicted to be 70 dBA and 78 dBA, respectively. None of these predicted construction noise levels exceed the FTA General Assessment Construction Noise Criteria of 90 dBA (day) or 80 dBA (night).

ACWR will minimize construction noise by implementing specific measures to help mitigate the noise at the source. Best practices to minimize construction equipment noise require regular and thorough maintenance procedures for all construction equipment. Replacement of failing or ineffective muffling and exhaust systems, periodic lubrication of moving parts, and properly tuned engines are necessary in order to keep construction equipment noise emissions to a minimum. Proper scheduling and implementing duration limits for the noisiest construction events can reduce the severity of noise impacts during the construction phase.

For the No-Build Alternative, current noise levels would be unchanged. Therefore, the No-Build Alternative would not affect noise levels for the noise-sensitive land uses.



## Vibration

Potential vibration impacts were evaluated by applying the Vibration Screening Procedure as presented in FTA's Transit Noise and Vibration Impact Assessment Manual. Based upon the vehicle type (steel-wheeled/steel-rail vehicles) and the most similar project type (Project Type Number 4 - Intermediate Capacity Transit), the critical distance for Land Use Category 2 receptors is 100 feet and the critical distance for Land Use Category 3 receptors is 50 feet. As neither of the two residential properties (Land Use Category 2) are within 100 feet of the rail or proposed LOD and the Rocky River High School athletic field (Land Use Category 3) is not within 50 feet of the rail or LOD, no further vibration analysis is required.

### 4.2.3 Farmland Resources

#### *Identification*

Federal actions must identify and take into account the potential adverse effects of projects that may irreversibly convert farmland to non-agricultural uses pursuant to the Farmland Protection Policy Act (FPPA), 7 U.S.C. Parts 4201 - 4209. The Proposed Action would not impact active agricultural land; however, the FPPA still applies. A review of the United States Department of Agriculture's (USDA) Web Soil Survey website was undertaken to identify Prime Farmland Soils, Soils of Statewide Importance and/or Unique Soils. Prime farmland, as defined by the USDA, is land that

*FPPA farmland is prime farmland, unique farmland, and additional farmland of statewide importance as defined by the Natural Resources Conservation Service (NRCS) and based on underlying soils types regardless of whether or not the farmland soils are in active agricultural use.*

has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. Farmland Soils of Statewide Importance is land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. Unique farmland has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields or both high quality and high yields of a specific crop when treated and managed according to acceptable farming methods. A review of the Study Area indicated that, while no productive agriculture is present, Prime Farmland Soils and/or Soils of Statewide Importance are present at each Site except Samarcand Siding.

Although FPPA soils are present at four of the five Sites, a review of the USDA Natural Resources Conservation Service's (NRCS's) policy indicates that "projects constructed within the existing right-of-way" or "projects located on land already in urban development or used for water storage" are both exempt from the provisions of FPPA. Three of the Sites, Mint Hill Siding, Midland Siding, and Samarcand Siding (no FPPA Soils present) are all located within the existing right-of-way of the railroad. Furthermore, although Mint Hill Storage Yard and Warehouse would not be constructed within the existing right-of-way of the railroad, a review of the U.S. Census Bureau's Urban Maps indicates that the Site is located within an urban area. Therefore, Mint Hill Siding, Mint Hill Storage Yard and Warehouse, Midland Siding and Samarcand Siding are exempt from the provisions of FPPA. The fifth Site, ACWR HQ Storage Yard, is not exempt from the provisions of FPPA.

### *Impacts and Mitigation*

Construction of the storage yard at the ACWR HQ Site would convert approximately 18 acres of Soils of Statewide Importance. A Farmland Conversion Impact Rating (FCIR) form was prepared for the proposed work and submitted to the local NRCS office. Because the score is below 60, no further coordination is necessary, and no mitigation is necessary. NRCS coordination can be found in [Appendix B](#).

The No-Build Alternative would have no impact on farmland.

## **4.2.4 Forest Resources**

### *Identification*

Forested communities exist alongside or within the Study Area; however, only one Site would require considerable tree removal as part of the Build Alternative: Mint Hill Storage Yard and Warehouse.

***Mint Hill Storage and Warehouse*** – The central portion of this 66-acre parcel was former agricultural land that has transitioned into an early successional growth forest. The eastern and western edges of the parcel remain established forest and riparian area. The majority of the upland dominant tree species observed within the forested areas were white oak, sweetgum, tulip (or yellow) poplar, pignut hickory, American beech, and red maple. The dominant shrub and herb observed were southern blackberry, Chinese privet, autumn olive, goldenrod and Japanese stilt grass. Saplings were also observed but were not considered to be a dominant species. Japanese honeysuckle was the dominant woody vine observed in the upland area.

ACWR HQ Storage Yard would be located on an already tree cleared portion of the Site. Mint Hill Siding, Midland Siding, and Samarcand Siding would be constructed within existing ROW.

### *Impacts and Mitigation*

The Proposed Action would clear approximately 28 acres of marginal forest and scrub shrub habitat on the Mint Hill Storage and Warehouse Site, see [Figure 3](#). The other four Sites would have minimal tree clearing activities. Tree clearing activities on the Mint Hill Storage Yard and Warehouse Site will be conducted in accordance with the Northern Long-eared Bat guidance detailed in section 4.2.7 Threatened and Endangered Species. No additional mitigation measures are required. The far eastern and western portions of the Site would remain forested as riparian buffers for the wetland and watercourse habitat on Site.

The No-Build Alternative would have no impact on forest resources.



Figure 3 - Mint Hill Warehouse project site, looking north.

## 4.2.5 Water Quality

### *Identification*

This section analyzes water quality as it relates to public drinking water sources, both surface water and ground water. In accordance with the National Pollution Discharge Elimination System (NPDES) created under the Clean Water Act of 1972, construction sites with over one acre of disturbance are required to address point source discharges into receiving waters. Further, in 1989, the NC General Assembly ratified the Water Supply Watershed Protection Act, codified as General Statutes 143-214.5 and 143-214.6. The Act mandated the state Environmental Management Commission to adopt minimum statewide water supply protection standards for specific watersheds that contribute to surface water supplies (Water Supply Watersheds). A review of North Carolina Department of Environmental Quality (NC DEQ) GIS data revealed that ACWR HQ Storage Yard and Samarcand Siding are located in Water Supply Watersheds. Mint Hill Siding, Mint Hill Storage Yard and Warehouse, and Midland Siding are not located within Water Supply Watersheds.

***ACWR HQ Storage Yard*** - Water Supply III (WS-III) - Waters used as sources of water supply for drinking, culinary, or food processing purposes where a more protective WS-I or II classification is not feasible. These waters are also protected for Class C uses. WS-III waters are generally in low to moderately developed watersheds.

***Samarcand Siding*** - Water Supply II (WS-II) - Waters used as sources of water supply for drinking, culinary, or food processing purposes where a WS-I classification is not feasible. These waters are also protected for Class C uses. WS-II waters are generally in predominantly undeveloped watersheds.

There are state riparian buffer protection programs in the Neuse River Basin, Tar-Pamlico River Basin, Catawba River Basin, Randleman Lake Watershed, Jordan Lake Watershed and Goose Creek Watershed. The Study Area does not include any of these river basins/watersheds and therefore does not require a riparian buffer analysis or approval.

According to the North Carolina Department of Environment and Natural Resources, Division of Water Resources, Public Water Supply Section One Map, there are no public water supply sources within or adjacent to the Study Area.

### *Impacts and Mitigation*

Due to ACWR HQ Storage Yard location within a Water Supply Watershed, land development would require a 30-foot buffer around any watercourse (low density), more stringent erosion and sediment controls, and implementation of best management practices. The ACWR HQ Storage Yard design also includes a 30-foot buffer around the wetlands on site.

In accordance with NPDES, ACWR will comply by incorporating temporary erosion and sedimentation controls during construction to minimize the release of sediment into nearby water sources. Post construction, permanent stormwater management systems will be in place at Mint Hill Storage Yard and ACWR HQ Storage Yard to comply with NPDES regulations for disturbance over 10 acres. With the above-mentioned temporary and permanent controls in place, the Build Alternative would result in minimal impacts to water quality.

The No-Build Alternative would have no impact on water quality.

#### 4.2.6 Wetlands and Watercourses

##### *Identification*

Waters of the United States are regulated by the US Army Corps of Engineers (USACE) and US EPA under Section 404 of the Clean Water Act of 1972. The North Carolina Department of Environmental Quality (NC DEQ) regulates water resources through the Section 401 Water Quality Certification. Wetlands and watercourses were identified through a combination of onsite investigations and secondary source data including topographic quadrangles, soil mapping, aerial photography, National Wetlands Inventory, and other available mapping for the area in order to determine the presence of regulated resources within the Study Area. For an example of a stream located at the Midland Siding Site, see [Figure 4](#).



Figure 4 - Far Branch looking north at Midland site.

##### *Impacts and Mitigation*

Design plans illustrating the Proposed Action, watercourses and wetlands, and site-specific details are provided below. The graphics below can be viewed in more detail in [Appendix A](#). There are no regulated water resources located within or adjacent to the Mint Hill Siding and Samarcand Siding Sites. Impacts to watercourses and wetlands are provided in [Table 7](#).



**Mint Hill Storage Yard and Warehouse** - There are five wetlands, one pond, and five watercourses present on this Site, mainly located in the far eastern and western edges of the property, see **Figure 5**. The Proposed Action has been designed to avoid watercourses and wetlands to the extent practicable. Only one watercourse is within the LOD and therefore impacted. There would be no wetland impacts.

Watercourse impacts include a 0.025-acre encroachment on Watercourse 4 due to driveway construction. ACWR proposes a culvert in this location and will continue to evaluate minimization options as the design progresses through final design and into permitting. Standard construction methods and controls including approved dewatering and perimeter fencing will be incorporated into the design prior to the permitting process by ACWR.

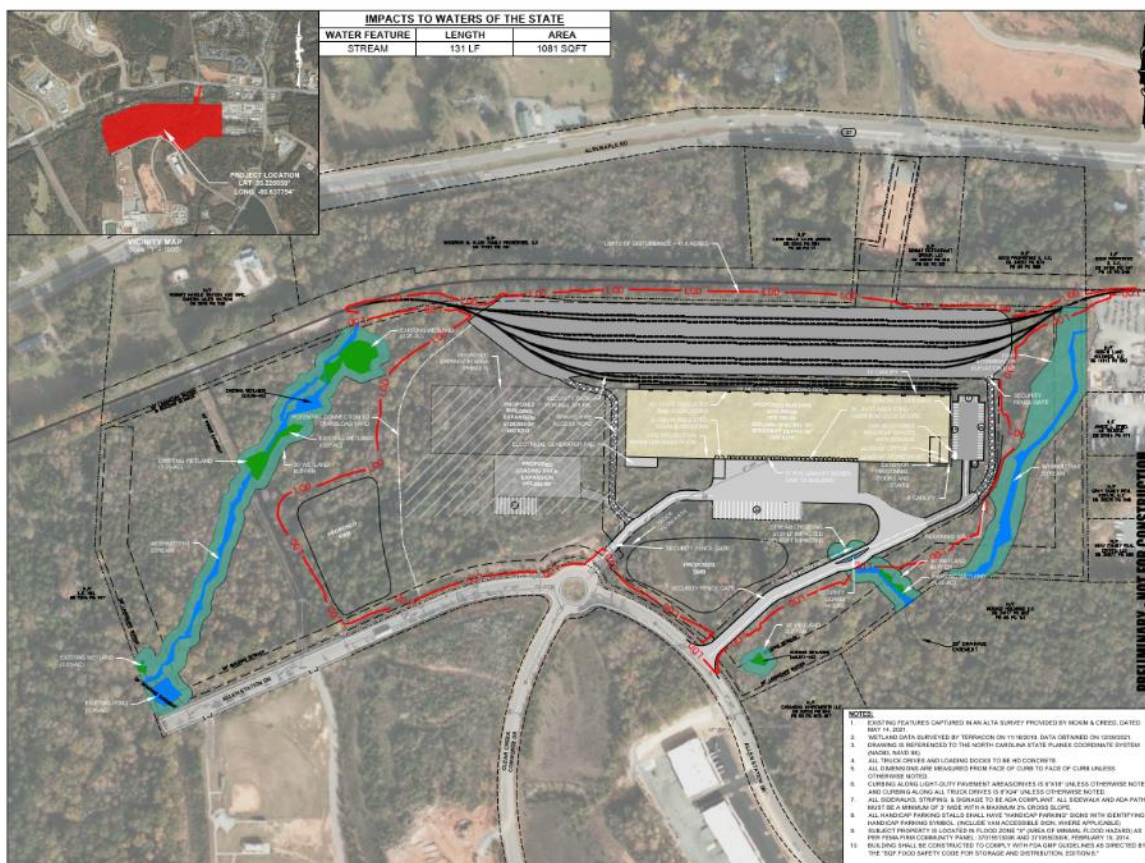


Figure 5 - Wetland and watercourses at Mint Hill Storage Yard and Warehouse Site.

**Midland Siding** - There are four waterways present on this Site within the LOD, see [Figure 6](#). Outside the LOD, there are three wetlands and one additional waterway that would not be impacted.

Watercourse impacts include 0.015-acre encroachment to Far Branch and its tributaries due to culvert pipe extension and currently proposed 2:1 fill slope. The current design is likely the worst-case scenario. Minimization efforts will take place in final design and may include the investigations necessary for retaining wall construction. As design plans progress and permit drawings are developed, standard controls including dewatering methods and perimeter fencing will be incorporated by ACWR.

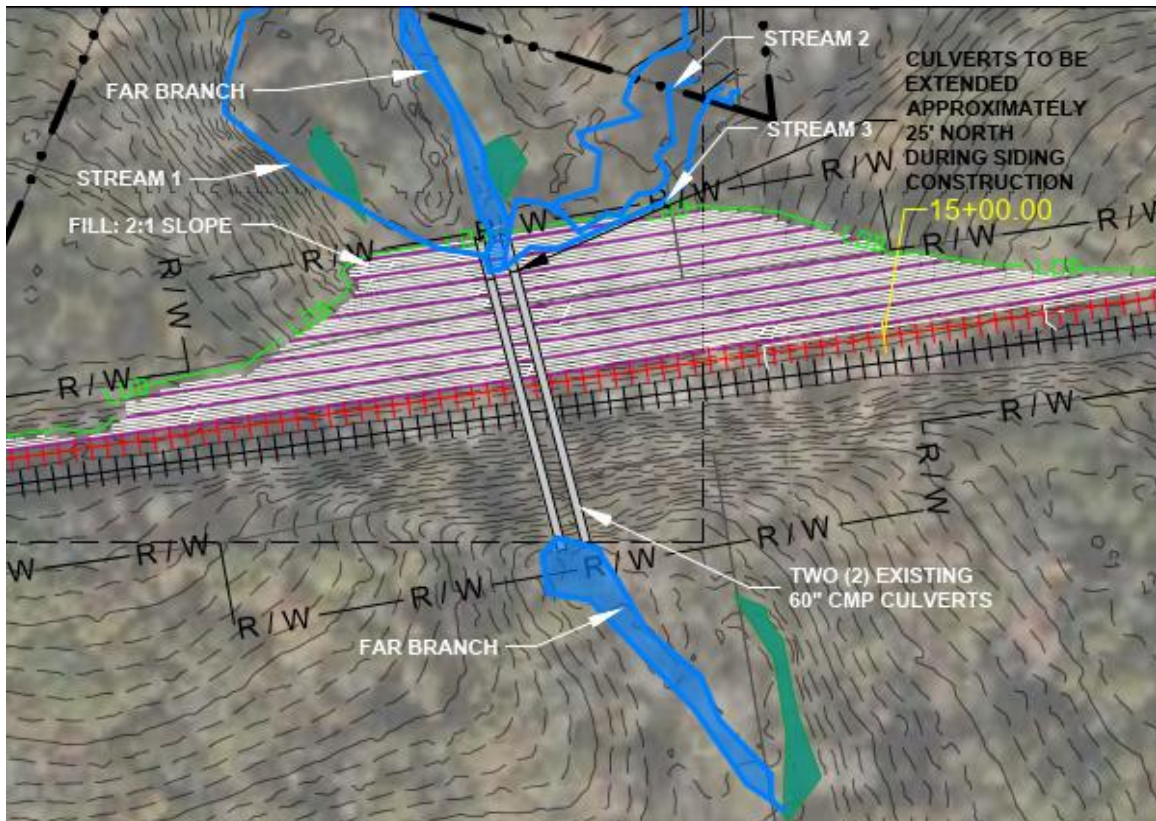


Figure 6 - Wetlands and watercourses at Midland Site.



**ACWR HQ Storage Yard** - There are no wetlands or watercourses present within the LOD, see [Figure 7](#). Outside the LOD are two wetlands and several ephemeral features that would not be impacted. No impacts are anticipated at this site.

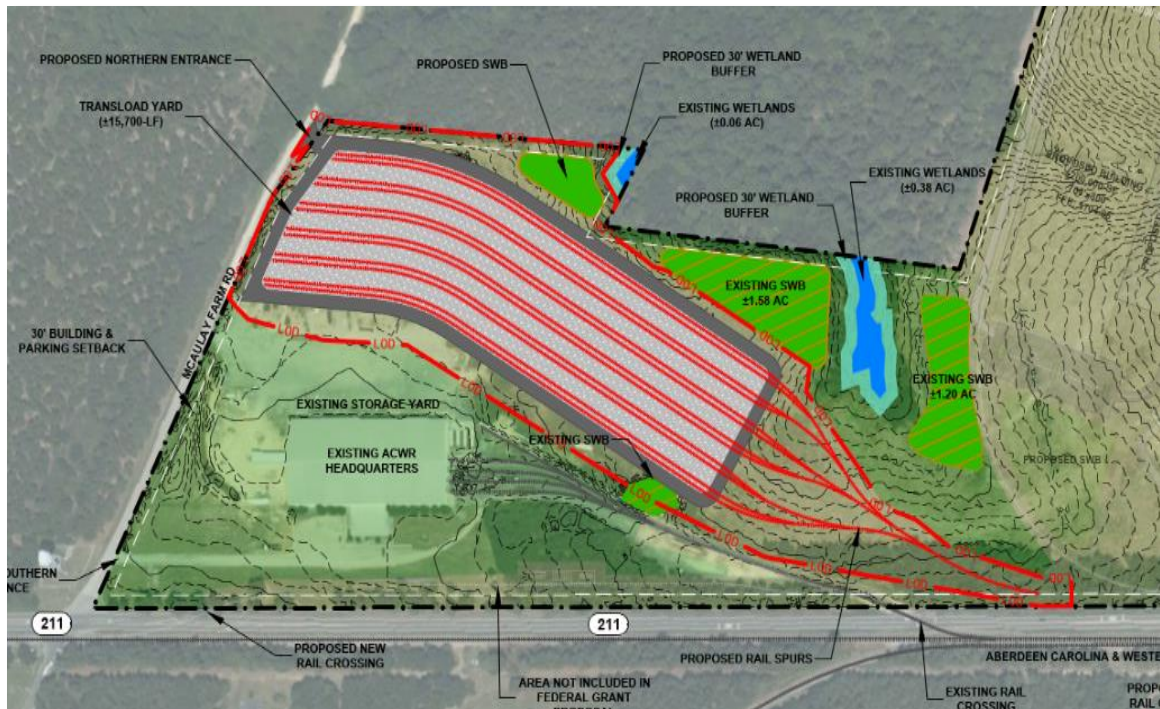


Figure 7 - Wetlands and watercourses at ACWR HQ Storage Yard Site.

**Wetlands** - Based on field observation and delineation, wetlands are present at three of the Sites: Mint Hill Storage and Warehouse, Midland Siding and ACWR HQ Storage Yard. The wetlands are located outside each Site's LOD; therefore, the Proposed Action would have no impact to wetlands.

**Watercourses** - Based on field observation and delineation, regulated watercourses are present and impacted at two of the sites, Mint Hill Storage Yard and Warehouse and Midland Siding ([Table 7](#)). Additional features are located on the ACWR HQ Storage Yard site, however, outside the LOD and, therefore, are not impacted or discussed in this EA.

Table 7: Watercourse Impact by Site

Site	Feature	Impact LF	Impact AC
Mint Hill Storage Yard and Warehouse	Watercourse 4	131	0.025
Midland Siding	Far Branch (N)	22	0.005
	Stream 1	31	0.002
	Stream 2	25	0.002
	Stream 3	92	0.006
Total		301	0.040

Avoidance and minimization efforts have been incorporated into the current design including a 30-foot buffer around all regulated resources. Impacts have been minimized to the extent practicable.

The total impacts for the Proposed Action include an 0.0-acre wetland impact and 301-linear foot (0.040 ac) watercourse impact. The regional conditions for the USACE Nationwide Permit (NWP 39, NWP 14) stipulate that mitigation and pre-construction notification may be required for any activity resulting in the loss of more than 0.02 acres of stream bed. In final design, ACWR will conduct a Preliminary Jurisdictional Determination (PJD) with the USACE as well as determine minimization efforts, final impacts, mitigation requirements, and if necessary, mitigation banking options. ACWR will be responsible for obtaining the necessary permits prior to construction.

The No-Build Alternative would have no impact on wetlands and watercourses.

Permitting for the Proposed Action would include USACE Section 404 approval (NWP 14 linear feature, NWP 39 for storage yard, warehouse) and NC DEQ 401 Water Quality Certification approval. Permitting would take place during final design. Wetland and Watercourse Delineation Reports are located in the [Appendix C](#).

#### 4.2.7 Threatened and Endangered Species

##### *Identification*

The Study Area includes urban and natural areas that contain wetlands, streams, and forested habitat. Threatened and endangered plant and animal species are protected under the Endangered Species Act of 1973 (16 U.S.C. Part 1531 *et seq.*) (ESA), as codified in 50 CFR Part 17, and North Carolina State Nature Preserves Act Parts 143B-135.250. –143B-135.272. The ESA was enacted to protect endangered and threatened species from becoming extinct. This includes importing, exporting, selling, and transporting species. The law also provides for the designation of critical habitat and prohibits destruction of that habitat. “Take” as defined under the ESA means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. Part 1532(19). An incidental take is an unintentional, but not unexpected, taking. To determine if any critical habitats or threatened and endangered species exist within or adjacent to each site, federal and state databases were accessed in September 2021.



United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) search engine was utilized to identify critical habitat that may occur on each site.

North Carolina Natural Heritage Program (NCNHP) office was contacted for technical assistance regarding documented occurrence of rare, threatened, or endangered species at each site or in the vicinity of each site.

### Federal Threatened and Endangered Species

A combination of secondary source data including topographic quadrangles, soil mapping, aerial photography, National Wetlands Inventory, and other available mapping for the area, federal, and state database information, and onsite field investigations took place for the species identified in the IPaC at each site (Table 8). The IPaC provided a list of species by site to be considered in the effect analysis for the Proposed Action, as indicated by the “x” below.

Table 8: Federal Threatened and Endangered Species								
Site	Northern Long-eared Bat	Carolina Heelsplitter	Schweinitz’s Sunflower	Michaux’s Sumac	Smooth Coneflower	Cape Fear Shiner	Atlantic Pigtoe	Red-cockaded Woodpecker
Mint Hill Siding	x	x	x	x	x			
Mint Hill Warehouse	x	x	x	x	x			
Midland Siding	x	x	x					
ACWR HQ Storage Yard			x	x		x	x	x
Samarcand Siding			x	x		x	x	x

Field evaluations were conducted by qualified biologists to identify potentially suitable habitat for federally threatened and endangered species protected by the Endangered Species Act (ESA).

### Impacts

Based on the historic and current land use activities, the lack of documented populations, and the lack of suitable habitat observed during the field investigations, FRA determined that there would be “no effect” on the Schweinitz’s Sunflower (see Figure 8), Carolina Heelsplitter, Michaux’s Sumac, Smooth Coneflower, Cape Fear Shiner, Atlantic Pigtoe, and the Red-cockaded Woodpecker. No additional coordination is necessary for these species, see Appendix D.

Due to potential summer roosting habitat for the Northern Long-eared Bat, the determination of “may affect, not likely to adversely affect” is recommended and discussed in greater detail below.



Figure 8 - Schweinitz’s Sunflower

### ***Northern Long-eared Bat (NLEB)***

Section 4(d) of the ESA allows the USFWS to promulgate special rules for species listed as threatened (not endangered) that provide flexibility in implementing the ESA. For the Northern Long-eared Bat (NLEB), the 4(d) rules tailor protections to areas affected by white-nose syndrome during the bat's most sensitive life stages. The rule is designed to protect the bat while minimizing regulatory requirements for landowners, land managers, government agencies and others within the specie's range.

A NLEB field evaluation was completed in the fall of 2021 for the Mint Hill Siding, Mint Hill Storage Yard and Warehouse, and Midland Siding sites. Potential roost trees (summer habitat) were observed within the riparian forest portions of the sites. A review of September 2021 NCNHP records indicates no occurrences of NLEB within 1.0 mile of the Study Area. No known, occupied hibernacula were identified within 1.0 mile of the Study Area based on review of these NCNHP records.

The 4(d) rule prohibits incidental take that may occur from tree removal activities within 150 feet of a known occupied maternity roost tree during the pup season (June 1 through July 31) or within 0.25 miles of a hibernation site, year-round. The Proposed Action meets the intent of the 4(d) rules criteria and any incidental take would be exempt if the Proposed Action continues to remain in compliance with the 4(d) rules. Consultation with USFWS is not required if these criteria do not change and no new information regarding NLEB occurrences or hibernaculum within 0.25 mile arises.

A biological conclusion of "may affect, not likely to adversely affect", was recommended per the 4(d) rules. Coordination was undertaken with USFWS via the IPaC system for the 4(d) ruling on December 7, 2021 and is attached in [Appendix D](#).

The No-Build Alternative would have no impact on federal threatened or endangered species.

### ***Mitigation***

NLEB mitigation in the form of a tree cutting timing restriction is required at three sites including Mint Hill Siding, Mint Hill Storage Yard and Warehouse, and Midland Siding. Tree removal activities are prohibited from June 1 through July 31. ACWR will add this restriction to the construction sequence and refrain from tree cutting from June 1 through July 31.

The Build Alternative would have "no effect" on the Schweinitz's Sunflower, Carolina Heelsplitter, Michaux's Sumac, Smooth Coneflower, Cape Fear Shiner, Atlantic Pigtoe, and the Red-cockaded Woodpecker. No additional coordination or mitigation is necessary for these species.

USFWS correspondence is located in [Appendix D](#).

### **State Threatened and Endangered Species**

Based on the response provided by NCNHP (dated September 23, 2021) a query of the NCNHP database revealed species within 1.0 mile of for each site as outlined in [Table 9](#).

**Table 9: State Threatened or Rare Species**

Site	Species
Mint Hill Siding	Tall Larkspur (State Threatened ST) - Last observed: 1800s;
	Carolina Birdfoot-trefoil (ST) - Last observed: August 1951.
	City of Charlotte Open Space
Mint Hill Storage Yard and Warehouse	Tall Larkspur (ST) - Last observed: 1800s;
	Carolina Birdfoot-trefoil (ST) - Last observed: August 1951.
	Mecklenburg County Open Space Nature Preserve
Midland Siding	Rare, State threatened or endangered species: none.
	Three Rivers Land Trust Easement
ACWR HQ Storage Yard	Autumn Tiger Beetle (Significantly Rare SR) - Last observed: 8/10/1964.
	LBR/Drowning Creek Aquatic Habitat
Samarcand Siding	Autumn Tiger Beetle (SR), - Last observed: 8/10/1964;
	Northern Pinesnake (ST) - Last observed: 5/27/1989.
	Pine/Scrub Oak Sandhill
	Sandhill Streamhead Swamp
	Streamhead Canebrake
	Eagle Springs Sandhills Natural Area

### **Impacts and Mitigation**

Based on the historic and current land use practices, lack of documented populations, and lack of habitat, the Build Alternative is expected to have “no effect” on the Tall Larkspur, Carolina Birdfoot-trefoil, Autumn Tiger Beetle, or Northern Pinesnake; no further coordination is necessary. Similarly, several natural communities or conservation/managed areas were noted; however, each was located outside the Study Area and would not be affected by the Build Alternative. Therefore, no mitigation is proposed.

The No-Build Alternative would have no impact on state threatened or endangered species or natural communities.

NCNHP correspondence is located in [Appendix D](#).

## **4.3 Human Environment**

The purpose of this section is to describe the characteristics of the human environment within the area affected by the Proposed Action.

### 4.3.1 Cultural and Historic Resources

#### Regulatory Overview

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies to consider the effects of their undertakings on historic properties. Section 106 implementing regulations are outlined in 36 CFR Part 800 and define the Section 106 process, which consists of four steps: (1) initiation of the Section 106 process; (2) identification and evaluation of historic properties; (3) assessment of the effects of an undertaking on historic properties; and (4) resolving adverse effects. As defined in 36 CFR Part 800.16, an historic property is any prehistoric or historic site, object, structure, building, or district included in or eligible for inclusion, on the National Register of Historic Places (NRHP).

#### Affected Environment

The environmental inventory included a cultural resources desktop review to delineate an area of potential effects (APE) and archaeological field reconnaissance of the APE. Fieldwork was conducted during October and November 2021 by a qualified archaeologist meeting the Secretary of the Interior's Qualifications Standards at 36 CFR Part 61. The goal of this field reconnaissance was to assess current site conditions to ascertain whether the APE has the potential to contain intact archaeological resources or above-ground structures as well as to provide site-specific information to support Section 106 consultation with the North Carolina State Historic Preservation Officer (NC SHPO).

As a result of the investigations, no extant above-ground structures were identified within the APE. Four new archaeological sites were recorded (31MK1172, 31MK1173, 31MG2238, and 31MG2239), see [Table 10](#). Sites 31MK1172 and 31MK1173 are located within the Mint Hill Storage Yard and Warehouse site, and site 31MG2238 and 31MG2239 are located within the ACWR HQ Storage Yard site. None of the sites are recommended eligible for the National Register of Historic Places (NRHP). Much of the APE has been disturbed and eroded by past timbering, clearing, and development activities.

**Table 10: Summary of Archaeological Site Data**

Site	Cultural Affiliation	Site Type	Recommendation
31MK1172	Historic: Mid-19th to 20th c.	Domestic	Not Eligible; NFW*
31MK1173	Historic: Mid- 20th c.	Agricultural	Not Eligible; NFW*
31MG2238	Prehistoric: Lithic, Unk. Subperiod	Limited Activity	Not Eligible; NFW*
31MG2239	Prehistoric: Woodland; Historic: Mid-19th to 20th c.	Prehistoric: Short-Term Habitation; Historic: Domestic	Not Eligible; NFW*

\* No Further Work

Section 106 consultation was initiated with the NC SHPO, Catawba Tribe, and Cherokee Tribe via email on November 23, 2021. A determination of effects, APE Mapping and the Archeological Reconnaissance Report were provided. At NC SHPO's request, hard copies and CDs were provided on December 1, 2021.

### *Impacts and Mitigation*

In compliance with Section 106 of the NHPA, the FRA has determined, and the NC SHPO has agreed by a letter dated January 11, 2022, that the undertaking would result in no historic properties affected. The Concurrence Form for Assessment of Effects (January 11, 2022), which documents this information, can be found in [Appendix E](#). No mitigation is required.

The No-Build Alternative would have no impact on cultural resources.

#### 4.3.2 Section 4(f)/6(f) and Parks and Recreation

##### *Identification*

Section 4(f) refers to Section 4(f) of the US Department of Transportation (DOT) Act of 1966 codified in Federal law at 49 U.S.C. 303. Section 4(f) specifies that US Department of Transportation agencies, including FRA, cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or historical sites of national, state, or local significance unless there is no feasible and prudent alternative to the use of the land and the Proposed Action includes all possible planning to minimize harm to the property. Section 6(f) of the Land and Water Conservation Fund Act (LWCF) of 1965 provides matching funds to states and municipalities for improvement or acquisition of outdoor recreational facilities. Section 6(f) is independent from Section 4(f) but must be considered during Section 4(f) compliance. The two laws have a common goal of protecting public recreation facilities.

The Proposed Action would take place on privately-owned commercial properties. A desktop inventory did not identify any Section 4(f) properties within the Study Area. There are no national parks, federally managed recreational lands, or wildlife or waterfowl refuges. Section 106 consultation was used to identify historic properties in the Study Area. Section 106 consultation concluded without identifying historic properties. According to the North Carolina State Parks Department, which includes state and local parks, there are no public recreational facilities adjacent to any of the sites. As there are no public recreational properties in or adjacent to the Study Area, no lands or facilities within the Study Area have been improved through the Land and Water Conservation Fund (LWCF).

##### *Impacts and Mitigation*

There would be no impacts to Section 4(f)/6(f) resources as a result of the Proposed Action as no Section 4(f)/6(f) resources are present within the Study Area. No mitigation is required.

The No-Build Alternative would have no impact on Section 4(f)/6(f) resources or parks and recreation.

#### 4.3.3 Hazardous Waste and Hazardous Material

##### *Identification*

The Study Area is within or adjacent to active railroads; therefore, the potential for residual contaminants exists at each of the Sites. In order to identify additional potential waste concerns, an online review of the US EPA's Search for Superfund Sites Where You Live website, US EnviroFacts website, and the NC DEQ's online Waste Management GIS Data and Maps was undertaken in October 2021 for each of the Sites.

**Mint Hill Siding** - A review of online resources identified a potential waste concern south of the railroad ROW. W. K. Baucom, Inc. Equipment Yard is listed as a property with a Land Use Notice and Restriction due to a previous spill from an Underground Storage Tank (UST). Although the Notice and Restriction



does not extend into the railroad ROW itself, the potential for contaminated groundwater or soil exists. However, online records indicated that the groundwater flow in the area is in a southern direction. Given that the railroad is approximately 300 feet north of the spill location and the groundwater flow is away from the railroad, it is unlikely contamination from this site would impact the Proposed Action.

***Mint Hill Storage Yard and Warehouse*** - A review of online resources did not identify waste sites within or adjacent to the Site. There was one waste site located less than 1,000 feet from the Study Area, which was listed as an UST Incident. However, a review of the available files indicated that contaminants from the site were leaching in a northward direction. Given that the site is south of the identified waste site, no contamination is expected.

A Phase I Environmental Site Assessment (ESA) was conducted in 2013 for the Mint Hill Storage Yard and Warehouse Site, located in [Appendix F](#). The Phase I Report included the necessary data search, background research, interviews, site visit, records review and recommendations. While construction debris and miscellaneous trash were observed, no evidence of hazardous materials was observed or identified. Prior to ACWR's acquisition of the property, the trash and debris were removed.

***Midland Siding*** - A review of online resources did not identify waste sites within or adjacent to the Site. Therefore, beyond the possible presence of contaminants along the existing rail line, there are no hazardous waste concerns.

***ACWR HQ Storage Yard*** - A review of online resources did not identify waste sites within or adjacent to the Site. A Phase I Environmental Site Assessment (ESA) was conducted in 2013 for this site, see [Appendix F](#). The Phase I Report included the necessary data search, background research, interviews, site visit, records review and recommendations. No evidence of hazardous materials was observed or identified.

***Samarcand Siding*** - A review of online resources did not identify any waste sites located within or adjacent to the Site. Therefore, beyond the possible presence of contaminants along the existing rail line, there are no hazardous waste concerns.

ACWR hauls hazardous material on their rail line in accordance with the US EPA, Pipeline and Hazardous Materials Safety Administration (PHMSA), and FRA policies and standards. A recent inspection (2021) was completed by FRA to ensure ACWR's training, compliance, and permits were up to date. No issues were identified. Each shipper provides hazmat paperwork for train crews that provides essential information on the product and emergency response details. Each rail car has emergency contact information stenciled on the car and is monitored daily in accordance with regulatory requirements. ACWR has also partnered with local first responders to provide onsite training in conjunction with the Short Line Safety Institute.

### ***Impacts and Mitigation***

Prior Phase I Environmental Site Assessments were conducted at two of the five Sites within the Study Area. The end result of these previous studies indicated no further action was required. Commensurate with the scope of work at the additional Sites within the Study Area, a review of online records did not reveal the presence of hazardous waste.

Should contaminated materials be encountered, ACWR will dispose of all materials properly and in accordance with all federal, state, and local regulations.

The No-Build Alternative would have no impact on hazardous waste or hazardous material.

#### 4.3.4 Land Use

##### *Identification*

The Study Area is located in four counties in central North Carolina along an existing railroad corridor stretching from Charlotte to Candor. Zoning in the Study Area was analyzed and mapped as shown on **Figure 9**. For more detailed mapping please see **Appendix A**.

***Mint Hill Siding, Midland Siding, and Samarcand Siding*** - The passing and siding Sites are within the existing railroad ROW and are surrounded by a mix of undeveloped forested/agricultural areas and residential land uses. The land use within the Study Area is transportation. Zoning adjacent to the siding includes a mix of mainly residential, with commercial and industrial uses.

***Mint Hill Storage Yard and Warehouse*** – The Site is located on land owned by ACWR. The Site is bounded on the north by the active ACWR rail line, on the south by Allen Station Road, on the east by commercial/industrial development, and on the west by undeveloped forested land. The land use within the Site is former agricultural fields and mixed forest. Infrastructure remains from previous development attempts including stormwater facilities, road grading, and utilities. The parcel is zoned commercial. Zoning adjacent to the property includes a mix of mainly industrial, with commercial, residential, and institutional (Rocky River High School) uses.

***ACWR HQ Storage Yard*** – The Site’s limit of disturbance is surrounded by commercial uses (ACWR Headquarters) and undeveloped forested and agricultural land. The land use within the limit of disturbance is cleared commercial land. The parcel is zoned industrial. Zoning adjacent to the property includes a mix of industrial and residential uses.

##### *Impacts and Mitigation*

Construction of the Proposed Action would alter the land use at the Mint Hill Storage Yard and Warehouse and ACWR HQ Storage Yard Sites. The land use would change from open/forested land to commercial and industrial land uses but would remain consistent with current zoning. No mitigation is required. There would be no change in land use for the Mint Hill, Midland, and Samarcand Siding Sites.

The Mint Hill Storage Yard and Warehouse Site is within the Charlotte MSA and is zoned for general industrial use. Similarly, the ACWR HQ Storage Yard Site is zoned for industrial use. The land use changes are within areas or properties that are slated for development and would bring employment opportunities to the area. The No-Build Alternative would have no impacts on land use or zoning.

#### 4.3.5 Demographics/Environmental Justice

##### *Identification*

The Proposed Action would take place in five distinct locations around Charlotte (to the west) and Candor (to the east). The western three Sites (Mint Hill Siding, Mint Hill Storage Yard and Warehouse, and Midland Siding) are located in Mecklenburg and Cabarrus Counties while the two eastern Sites (ACWR HQ Storage Yard and Samarcand Siding) are located in Montgomery and Moore Counties. General demographic data were gathered from the EPA’s EJSCREEN website in the fall of 2021.







**Mecklenburg County** has a total population of 992,514 with an average household income of \$64,509. Residents who live below the poverty level is 11.6% whereas that number is 14.7% for the state of North Carolina. The minority population comprises 46.2% of the total population whereas that number is 31.3% for the state of North Carolina.

**Cabarrus County** has a total population of 187,661 with an average household income of \$69,297. Residents who live below the poverty level is 10.2% whereas that number is 14.7% for the state of North Carolina. The minority population comprises 29.5% whereas that number is 31.3% for the state of North Carolina.

**Montgomery County** has a total population of 27,509 with an average household income of \$47,757. Residents who live below the poverty level is 17.7% whereas that number is 14.7% for the state of North Carolina. The minority population comprises 24.4% whereas that number is 31.3% for the state of North Carolina.

**Moore County** has a total population of 91,576 with an average household income of \$59,471. Residents who live below the poverty level is 11.3% whereas that number is 14.7% for the state of North Carolina. The minority population comprises 17.8% whereas that number is 31.3% for the state of North Carolina.

In order to analyze whether potential environmental justice populations are present within the Study Area in accordance with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 FR 7629), demographic data were compiled from the US Census Bureau for each Site's block groups and census tracts. Minorities, as defined by the US Census Bureau, are composed of several different race categories—Black, American Indian, Asian, Pacific Islander, Other, and Two or More races. Block groups are statistical divisions of census tracts used to present data and are generally defined to contain between 600 and 3,000 people. A block group consists of clusters of blocks within the same census tract.

*Environmental Justice (EJ) refers to the implementation of Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which directs procedures to be put in place to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income population groups.*

Data were also compiled for the townships (Clear Creek, Harrisburg, Biscoe, and Bensalem Townships), counties (Mecklenburg, Cabarrus, Montgomery, and Moore), and state (North Carolina) to allow comparison of the census tracts and block groups of the referenced area. These data are summarized in tabular format ([Table 11](#)). Where block groups with minority and low-income populations greater than the county average (blue) are present, EJ populations are considered to be present. [Table 11](#) identifies the block groups in the Study Area considered to have potentially concentrated environmental justice populations (red). However, since data for low-income populations were not available at the block group level, comparisons were made using the census tract, which was the smallest geographical area for which data were available.

**Table 11: Environmental Justice Analysis**

Site		Geographies	Minority	Low Income
		North Carolina	31.32	14.7
		Mecklenburg County	46.21	11.6
		Clear Creek Township	32.13	7.2
Mint Hill Siding		Census Tract: 56.20	67.25	13.1
		Block Group 2	66.48	*
	Mint Hill Warehouse	Census Tract: 57.06	29.81	9.1
		Block Group 2	33.79	*
		Census Tract: 56.21	51.32	4.3
		Block Group 2	70.75	*
		Cabarrus County	29.46	10.2
		Harrisburg Township	29.15	3.7
Midland Siding		Census Tract: 416.01	13.22	7.8
		Block Group 3	17.97	*
		Montgomery County	24.37	17.7
		Biscoe Township	27.57	19.1
ACWR HQ Storage Yard		Census Tract: 9605	25.55	24.4
		Block Group 2	39.12	*
		Moore County	17.80	11.3
		Bensalem	20.68	10.7
Samarcand Siding		Census Tract 9503.02	18.01	6.1
		Block Group 1	19.13	*

\* Data were not available

**Mint Hill Siding** - Minority and low-income populations have been identified within the Study Area, adjacent to the Site. The Site is located entirely within the railroad ROW; therefore, there would be no direct impacts to adjacent properties, residences, or businesses in the area. The Proposed Action would increase the efficiency of the railroad, which would reduce wait times at nearby at-grade crossings, shorten travel time for the traveling public, and reduce EMS response times. The Proposed Action would not result in the loss of jobs near the Site or cause disruption to public transit systems. The Proposed Action upgrades an existing facility and would not affect community cohesion. The Proposed Action is unlikely to have a disproportionately high and adverse effect on EJ populations.



***Mint Hill Storage Yard and Warehouse*** - Minority and low-income populations have been identified within the Study Area, adjacent to the Site. The Site is located on property that is owned by ACWR and does not require acquisition of adjacent land or displacement of residences or businesses. The construction is expected to have limited environmental impacts. The construction of a new commercial/industrial Site has the potential to bring new jobs to the community, thereby resulting in an overall positive economic impact. The construction is not expected to affect community cohesion or local land use since the area is already zoned for and part of the industrial/commercial Charlotte MSA. The Proposed Action is unlikely to have a disproportionately high and adverse effect on EJ populations.

***Midland Siding*** - No EJ populations were identified within the Study Area, adjacent to the Site. The Proposed Action is unlikely to have a disproportionately high and adverse effect on EJ populations.

***ACWR HQ Storage Yard*** - Minority and low-income populations have been identified within the Study Area, adjacent to the Site. The Site is located on property that is owned by ACWR and does not require acquisition of adjacent land or displacement of residences or businesses. Construction is expected to have minor environmental impacts. The construction of a new storage yard has the potential to bring jobs to the community, thereby resulting in an overall positive economic impact. The parcel is appropriately zoned for industrial use and would not affect community cohesion. Therefore, the Proposed Action is unlikely to have a disproportionately high and adverse effect on EJ populations.

***Samarcand Siding*** - Minority and low-income populations have been identified within the Study Area, adjacent to the Site. The Site is located entirely within the railroad ROW; therefore, there would be no direct impacts to adjacent properties, residences, or businesses in the area. The increased efficiency of the railroad would reduce wait times at nearby at-grade road crossings, shorten travel time for the traveling public, and reduce EMS response times. The construction would not result in the loss of jobs within the Site or cause disruption to public transit systems. Since this is an upgrade of an existing facility, construction would not affect community cohesion. Therefore, the Proposed Action is unlikely to have a disproportionately high and adverse effect on EJ populations.

### ***Impacts and Mitigation***

The Proposed Action would have a direct and positive impact on EJ populations by providing employment in the form of construction jobs and new opportunities. The warehouse facility would require additional staff to receive, store, package, and ship items. Job creation could include between 40-50 positions which would benefit the state and local economy.

The Proposed Action would not require displacements or acquisition of land, would increase efficiency of trains which would reduce wait times at local road crossings, reduce EMS response times, and bring employment opportunities to the area. The Proposed Action is unlikely to have a disproportionately high and adverse effect on EJ populations. The Proposed Action is likely to have a positive impact on the local economy, therefore no mitigation is proposed.

The No-Build Alternative would have no impact (positive or negative) on the communities along the corridor.

#### 4.3.6 Public Health, Safety, and Security

##### *Identification*

The current and proposed public health, safety, and security elements for the Proposed Action are summarized in this section.

**Public Health** – ACWR adheres to standard internal safety parameters when dealing with critical operations and railroad crossing incidents and derailments. These parameters include contact information of required staff, site assessment protocol (in case of incident or derailment), and emergency contact information. Site assessment protocol includes assessing the location, safety of those involved, site assessment for hazardous material release, damage or leaks, injuries, distance to populated areas, nearby waterways, and assessment of utilities or other hazards. Emergency contact information by location and mile post and Chemtrec contact information to assist first responders during incidents involving hazardous materials are also included.

**Site Safety and Security**- The storage and passing sidings are located within existing ROW and would benefit from the same protections and security elements that exist today. Interaction with vehicular traffic occurs at the Mint Hill Siding site (two private crossings) and at the Samarcand Siding site (one private crossing). Safety and security at Mint Hill Storage Yard and Warehouse and ACWR HQ Storage Yard would be addressed via a site-specific safety and security plan.

**At-grade Road Crossings** - Railcars staged on the mainline block major road crossings for customers and the general public. There are no public at-grade crossings within the Study Area; however, the rail capacity improvements brought about by the Proposed Action would have positive impacts on nearby grade crossings by minimizing wait times and increasing efficiency of train movements. Numerous letters of support have been received from community leaders, business stakeholders, government entities including, but not limited to, County governments, town governments, EMS providers, and private businesses and customers. These letters can be viewed in [Appendix G](#). Stakeholders agree that the Proposed Action would improve the ability to properly store and move railcars through communities to help mitigate potential emergency situations and general at-grade crossing congestion.

##### *Impacts and Mitigation*

Existing and proposed measures related to incident response, derailments, and site safety and security address potential safety and security concerns. The Proposed Action would positively impact at-grade crossing congestion and safety outside the Study Area by alleviating operational bottlenecks, which happen daily. The storage yards and passing sidings would decrease wait times for the traveling public and EMS responders at at-grade crossings to create a safer environment. Additionally, warehouse development would reduce the need for truck traffic on local roadways, thereby decreasing the potential for truck-car conflicts. This reduction would improve the overall safety and traffic flow on local roadways. These positive impacts would not require mitigation. Construction documents will include requirements to coordinate with property owners prior to work taking place at the three private crossings within the Study Area.

Under the No-Build Alternative existing conditions would remain. There would be no safety improvements other than those that would occur as a result of regularly scheduled maintenance along the rail line.

### 4.3.7 Transportation and Energy Use

#### *Identification*

Congestion exists along ACWR's railroad line. An increase in unit train traffic coming from Charlotte to Candor creates congestion on the rail line. Inadequate tracks to clear the mainline for westbound traffic result in a half-day delay for eastbound traffic. At any one time, the existing rail line may have up to five 90-car trains on the line which must be staged and temporarily stored. This has caused frequent congestion, blocking of road crossings, service delays, and inefficiencies for traincrews. These inefficiencies in movement, storage, switching, and maneuvering require more energy use and both rail and vehicular transportation delays.

#### *Impacts and Mitigation*

The Proposed Action would improve two main transportation issues: track congestion and train movement. The ability to park and store railcars on sidings and within new storage yards would reduce vehicle wait times and congestion at public road crossings. The addition of available passing sidings would allow for the turning of trains without halting oncoming locomotives due to lack of available siding and would help to make cargo shipments more efficient. More details related to at-grade crossing improvements as related to Public Safety is discussed in Section 4.3.6.

Hauling goods consumes energy, however, some modes of transport are more efficient than others. Rail transport is known to be more fuel efficient, consume less energy, haul more freight at one time and therefore emit fewer greenhouse gases. As emission standards continue to tighten, rail will be sought out as a greener and more sustainable form of transport particularly for heavy bulk commodities such as grain, steel, and aggregates, all of which are currently hauled along this rail line. In 2019, the most recent year for which data is available, ACWR customers collectively shipped 18,000 railcars, which avoided the use of 72,000 less-efficient long-haul trucks that year. Reducing congestion along this rail line, by allowing trains to maneuver, pass, and turn, would improve the efficiency, resulting in an anticipated decrease in energy consumption. The Mint Hill Warehouse would serve the public by reducing truck traffic and create a more efficient means of moving goods in the Charlotte MSA.

Currently, FRA has no established threshold to determine a significant impact under energy use; however, it is likely congestion relief of the Build Alternative would have a positive impact on the surrounding transportation network and environment by way of safer at-grade crossings and more efficient rail movements. Similarly, the continued growth of a greener, more sustainable form of transport would continue the reduction in energy use. Therefore, no mitigation is proposed.

The No-Build Alternative would have a negative impact on transportation and energy use due to the continued congestion and inefficiencies along the existing rail line. The surrounding transportation network would continue to suffer from blocked railroad crossings which would affect side road movements and reduce cargo movements for the rail customers and result in more energy use due to idling time or detouring.

## 4.4 Construction Period Impacts

### 4.4.1 Identification

Construction of the Proposed Action is anticipated to take between two and three years. Final sequencing of construction would take place during final design, however preliminary construction start dates and durations are provided below.

1 - Mint Hill Storage Yard	Quarter 1 2023	(approx. 6 months)
2 - Midland Passing Siding	Quarter 2 2023	(approx. 3 months)
3 - Mint Hill Passing Siding	Quarter 3 2023	(approx. 3 months)
4 - ACWR HQ Storage Yard	Quarter 4 2023	(approx. 6 months)
5 - Samarcand Siding	Quarter 1 2024	(approx. 3 months)
6 - Mint Hill Warehouse	Quarter 1 2024	(approx. 12 months)

Resources that may experience short-term construction period impacts include:

**Economy and employment** - construction would generate employment opportunities including consulting oversight and construction jobs at the sidings, storage yards, and warehouse.

**Air quality** – minor air quality impacts would occur from construction equipment exhaust emissions and dust as described in Section 4.2.1. The impact would be temporary and resolve at the end of construction.

**Noise levels** – minor noise impacts would occur from the operation of construction equipment as described in 4.2.2. The impact would be temporary and resolve at the end of construction.

**Access** – possible short-term impacts in the form of rerouting or detours at three private road crossings along the sidings while work is taking place in that area.

**Energy use** – impacts would occur from the use of fossil fuels during the operation of construction equipment.

### Impacts and Mitigation

The Proposed Action would have minor, short-term construction period impacts on the local economy and employment, air quality, noise levels, access at select private crossings, and energy use. While temporary impacts related to air quality and noise levels, and to a lesser degree, access and energy use would be negative in nature, there would be positive impacts to the economy and employment due to the creation of construction jobs.

ACWR would minimize and mitigate the remaining construction period impacts through design and construction measures and controls. The construction contract specifications will require that the contractor adhere to all federal, state, and local noise abatement and control requirements. Construction noise may be controlled by measures including but not limited to having construction equipment in good repair and fitted with “manufacturer recommended” mufflers. Air quality impacts will be mitigated through industry standard Best Management Practices (BMPs), such measures could include construction equipment that is kept clean, tuned-up, and in good operating condition. During construction, ACWR shall implement dust control measures to avoid unnecessary safety or health concerns.

ACWR will include requirements in the construction documents to coordinate with property owners prior to work taking place at the three private crossings within the Study Area.

The Proposed Action, once constructed, would provide for less idling trains, less congestion, and a more efficient transportation network.

The No-Build Alternative would have no construction period impacts.

## 4.5 Indirect and Cumulative Impacts

### 4.5.1 Identification and Impacts

**Indirect impacts** are those that are caused by a project and may occur later in time and are farther removed in distance but must be reasonably foreseeable. Indirect impacts of the Proposed Action include the potential for public health and safety improvements.

**Public health, safety, and security** – At-grade road crossings outside the Study Area would be positively impacted by the Proposed Action (i.e., congestion mitigation project). The road crossings are farther removed from the sites but would benefit from the Proposed Action. The reduced congestion of the rail line would reduce at-grade road crossing wait times, which also affect EMS response times. This would be a positive impact on the surrounding communities and overall transportation network.

**Cumulative impacts** are “environmental effects resulting from the incremental effects of an activity when added to other past, present and reasonably foreseeable future activities regardless of what entities undertake such actions.”

Charlotte has experienced significant growth in the recent past with a population and development boom in the late 1990s through today. Conversely, the more rural area surrounding Candor has remained fairly static during that same span. Resources reviewed in detail for cumulative impacts are those that are directly impacted by the Proposed Action and include agriculture, forest habitat, water resources, economics, transportation, and noise.

The passing siding locations are wholly contained within railroad ROW and the past, present, and future use would be transportation. The siding Sites do not have access to adjacent properties or interact with adjacent land uses and include minimal resources; therefore, cumulative impacts would be negligible. Similarly, the ACWR HQ Storage Yard Site is located within the ACWR HQ property which is currently in commercial/industrial use. The development of this area would have minimal environmental impacts and negligible cumulative impacts. The Mint Hill Storage Yard and Warehouse Site is located in a highly active and developing area within the Charlotte MSA called Clear Creek Commerce development which is positioned between I-485, Albemarle Road, and Blair Road. The area includes social and health facilities including a school and medical offices, as well as office buildings and other commercial properties. Additional properties are under contract or currently for sale. Past, present, and future actions in the surrounding area are provided in [Table 12](#).

### Mitigation

Indirect impacts of the Proposed Action would be minor. The Proposed Action would have a positive indirect impact on public health and safety; therefore, mitigation is not recommended. The No-Build Alternative would have negative indirect impacts including continued public health and safety concerns in relation to at-grade road crossings and lack of economic stimulus.



**Table 12: Past, Present, Future Actions – Clear Creek Commerce area**

Type	Past	Present	Future
Transportation	I-485, Albemarle Road, Norfolk Southern Railroad	Cresswind road network I-485, Independence Blvd widening and express lanes	ACWR Storage Yard, Mint Hill Passing ACWR corridor rehabilitation
Social/Health	Rocky River High School, Carolinas Healthcare Urgent Care, Novant Health Mint Hill Hospital, CMC Mint Hill Medical Plaza, Atrium Health Urgent Care	Mint Hill Medical Park expansion (Novant Health Parkway)	CHS Medical Campus (Blair Rd), Nursing and Rehab (Clear Creek Commerce Dr)
Commercial	Arby's, Waffle House, QuikTrip Convenient, Speedway, Griffin Masonry	Wendy's (Albemarle Rd), Exxon/Car Wash (Albemarle Rd) Mosack Group Distribution (Allen Station Drive) E.R. Services (Allen Station Drive) Casanova Siding (Allen Station Drive) Air Care Heating and Cooling (Allen Station Drive)	Retail Grocery (Rocky Rd Church Rd), Clear Creek Business Park (Allen Station Rd – 177 ac), ACWR Mint Hill Warehouse (Allen Station Rd), 4 parcels (Woodland Beaver Rd)
Residential	Woodbury (769 homes), Hawthorne (300 apartments),	Larkhaven (350 homes), Cresswind (850 homes, 55+), Lemmond Farm (336 apartments)	Larkhaven continued Cresswind continued

Cumulative impacts resulting from the Proposed Action when added to past, present, and reasonably foreseeable future actions would not be significant. Mitigation is not proposed.

Negative impacts resulting from the Proposed Action, mainly due to the Mint Hill Storage Yard and Warehouse Site, include the reduction of agricultural and forested habitat, increase in noise, and a negligible impact on water resources. These impacts would be mitigated through an appropriate permitting and stormwater controls. There would be a positive influence on economics by way of job creation. Transportation would also be positively impacted with the more efficient rail line and better connectivity in the area. The Mint Hill Storage Yard and Warehouse is within the Charlotte MSA, which is targeted for growth and has been primed for development with the addition of utilities and a transportation network. This type of infill development along an existing rail line would benefit the surrounding communities by concentrating development in growth areas near existing infrastructure.

The improvements to the existing rail line have minimal environmental impacts and the new development including the warehouse and storage yards are within limits of existing development, where growth is targeted. While minor indirect and cumulative impacts to resources may occur due to the Proposed Action, it is not likely to reach a “tipping point” and warrant a more detailed analysis or mitigation.

The No-Build Alternative would have no indirect or cumulative impacts as the Proposed Action would not be constructed.

## 5.0 Avoidance, Minimization and Mitigation Measures

During the design process, consideration was given to avoid impacts where possible, while minimizing impacts where practicable. For those impacts that cannot be avoided, mitigation measures will be implemented. In some cases, mitigation is only a commitment to complete additional steps prior to or during construction. Mitigation commitments are the responsibility of ACWR. Below is a list of mitigation items required for the Proposed Action.

**Water Quality** – Due to ACWR HQ Storage Yard location within a Water Supply Watershed, land development will require a 30-foot buffer around any watercourse (low density), more stringent erosion and sediment controls, and implementation of best management practices. The ACWR HQ Storage Yard design also includes a 30-foot buffer around the wetlands on site. In accordance with NPDES, ACWR will comply by incorporating temporary erosion and sedimentation controls during construction to minimize the release of sediment into nearby water sources. Post construction, permanent stormwater management systems will be in place at Mint Hill Storage Yard and ACWR HQ Storage Yard to comply with NPDES regulations for disturbance over 10 acres.

**Watercourses** – Avoidance and minimization efforts have been incorporated into the current design including a 30-foot buffer around all regulated resources. Impacts have been minimized to the extent practicable.

The regional conditions for the USACE Nationwide Permit (NWP 39, NWP 14) stipulate that mitigation and pre-construction notification may be required for any activity resulting in the loss of more than 0.02 acres of stream bed. In final design, ACWR will conduct a Preliminary Jurisdictional Determination (PJD) with the USACE as well as determine minimization efforts, final impacts, mitigation requirements, and if necessary, mitigation banking options. ACWR will be responsible for obtaining the necessary permits prior to construction. Permitting for the Proposed Action would include USACE Section 404 approval (NWP 14 linear feature, NWP 39 for storage yard, warehouse) and NC DEQ 401 Water Quality Certification approval. Permitting would take place during final design.

**Threatened and Endangered Species** – NLEB mitigation in the form of a tree cutting timing restriction is required at three sites including Mint Hill Siding, Mint Hill Storage Yard and Warehouse, and Midland Siding. Tree removal activities are prohibited from June 1 through July 31. ACWR will add this restriction to the construction sequence and refrain from tree cutting from June 1 through July 31.

**Noise** - Best practices to minimize construction equipment noise require regular and thorough maintenance procedures for all construction equipment. Replacement of failing or ineffective muffling and exhaust systems, periodic lubrication of moving parts, and properly tuned engines are necessary in order to keep construction equipment noise emissions to a minimum. Proper scheduling and implementing duration limits for the noisiest construction events can reduce the severity of noise impacts during the construction phase.

**Air Quality** – During construction, the contractor shall implement dust control measures to avoid unnecessary safety or health concerns.

**Hazardous Waste** - Should contaminated materials be encountered, all materials will be disposed of properly and in accordance with all federal state, and local regulations.

**Public Safety** - Construction documents will include requirements to coordinate with property owners prior to work taking place at the three private crossings within the Study Area.

## 6.0 Coordination and Consultation

Public and Agency coordination was undertaken as part of the NEPA process. Due to the limited scope and scale of the Proposed Action, limited outreach was undertaken. Three of the sites are located within existing railroad ROW and the other two sites are located on land adjacent to the rail owned by ACWR.

### 6.1 Public Involvement

Public comments are now being solicited on this EA. FRA is accepting public comments related to this EA during a public comment period that will extend for a minimum of 30 days after publication of the EA. Comments may be submitted via email to [kevin.wright@dot.gov](mailto:kevin.wright@dot.gov) or physical mail to:

Kevin Wright  
Environmental Protection Specialist  
Federal Railroad Administration  
1200 New Jersey Avenue Southeast  
Washington, DC 20590

### 6.2 Agency Coordination

An initial agency letter announcing the Proposed Action and seeking identification of important issues was sent to the following agencies on November 29, 2021.

U.S. Army Corps of Engineers (USACE)	National Park Service (NPS)	North Carolina Natural Heritage Program (NCNHP)
U.S. Fish and Wildlife Service (USFWS)	U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)	North Carolina Department of Environmental Quality (DEQ)
U.S. Environmental Protection Agency (USEPA)	North Carolina Department of Natural and Cultural Resources (NC DNCR)	Mecklenburg County
		Cabarrus County
National Oceanic and Atmospheric Administration (NOAA)	North Carolina Department of Transportation (NCDOT)	Montgomery County
		Moore County
Federal Emergency Management Agency (FEMA) Region IV	North Carolina State Historic Preservation Office (SHPO)	Catawba Tribe
		Cherokee Tribe

Feedback received from agencies or local government include the following organizations:

- USFWS
- Mecklenburg County

Specific coordination was undertaken by FRA with the following:

- NC SHPO related to Section 106 Consultation
- Catawba and Cherokee Tribes related to Section 106 Consultation
- USFWS related to Federal Threatened and Endangered Species
- NCNHP related to State Threatened and Endangered Species
- USDA NRCS related to FPPA soils

Agency correspondence is included in [Appendix G](#).

### 6.3 EA Distribution List

The EA is being made available digitally on the FRA website. Public notification was made on the FRA website and the Charlotte Observer. Hard copies will not be distributed. An email announcing the EA's availability was sent to the following federal, state, and local entities ([Table 13](#)).

Table 13: Distribution List	
Agency	
Federal	U.S. Army Corps of Engineers (USACE)
	U.S. Fish and Wildlife Service (USFWS)
	U.S. Environmental Protection Agency (USEPA)
	National Oceanic and Atmospheric Administration (NOAA)
	Federal Emergency Management Agency (FEMA) Region IV
	National Park Service (NPS)
	U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
	Catawba Tribe
	Cherokee Tribe
State	North Carolina Department of Natural and Cultural Resources (NC DNCR)
	North Carolina Department of Transportation (NCDOT)
	North Carolina State Historic Preservation Office (SHPO)
	North Carolina Natural Heritage Program
	North Carolina Department of Environmental Quality (DEQ)
Local	Mecklenburg County
	Cabarrus County
	Montgomery County
	Moore County Planning and Transportation Director
	Charlotte-Mecklenburg Historic Landmarks Commission



## 7.0 List of Preparers

### Skelly and Loy

Laura Bair, Senior Project Manager, (B.S.) Shippensburg University  
22 years' experience. Contributions: EA Author, Project Manager

Kevin Starner CEP, NEPA Department Manager, (B.S.) Shippensburg University  
24 years' experience. Contributions: QA/QC

Alan Dunay, Senior Scientist, Acoustics, (B.S.) Penn State University  
24 years' experience. Contributions: Air Quality, Noise and GHG

Elizabeth Grietzer, Field Scientist, (B.S., M.S.)  
Delaware Valley University, Montclair State University  
3 years' experience. Contributions: EJ, Socioeconomics, Hazardous Waste

### Terracon

JC Weaver, Project Scientist, (B.S.) University of North Carolina  
18 years' experience. Contributions: Wetlands and T&E

Melissa McKay, Project Manager, (B.A., M.S.)  
University of North Carolina, University of Georgia  
10 years' experience. Contributions: Cultural Resources

## **Appendices**

Appendix A – Project Mapping

Appendix B – USDA NRCS Coordination

Appendix C – Wetland and Watercourse Documentation

Appendix D – Threatened and Endangered Species Coordination

Appendix E – Section 106 Consultation and Supporting Documentation

Appendix F – Hazardous Waste Phase I Environmental Site Assessments

Appendix G – Public and Agency Coordination