APPENDICES

APPENDIX A: TRAFFIC ANALYSIS & FIGURES

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A-1 2015 and 2040 traffic volumes for existing conditions

Table A-1: 2015 and 2040 traffic volumes for existing conditions

Section Along US 70 and Existing US 70 Bypass	2015 AADT	2040 AADT	Percent Change
From western terminus to NC 148 (CF Harvey Parkway)			
US 70 – West of NC 903	16,600	35,400	113%
US 70 – Between NC 903 and SR 1603 (East Washington Street)	16,800	35,600	112%
US 70 – SR 1603 (East Washington Street) and SR 1323 (Jim Sutton Road)	20,200	39,200	94%
US 70 – SR 1323 (Jim Sutton Road) and SR 1520 (Norbert Hill Road)	19,700	38,200	94%
US 70 – SR 1520 (Norbert Hill Road) and SR 1334 (Barwick Station Road)	19,900	38,400	93%
US 70 – SR 1334 (Barwick Station Road) and SR 1522 (Albert Sugg Road)	19,900	38,500	93%
US 70 – SR 1522 (Albert Sugg Road) and Harold Sutton Road	20,100	38,600	92%
US 70 – Harold Sutton Road and SR 1324 (Kennedy Home Road)	20,300	39,000	92%
US 70 – SR 1324 (Kennedy Home Road) and SR 1546 (Banks School Road)	22,300	41,000	84%
US 70 – SR 1546 (Banks School Road) and NC 148 (CF Harvey Parkway)	21,200	39,000	84%
From NC 148 (CF Harvey Parkway) to NC 58 (Trenton Highway)			
US 70 – NC 148 (CF Harvey Parkway) and SR 2003 (Industrial Drive)	19,800	31,000	57%
US 70 – SR 2003 (Industrial Drive) and SR 2032 (Sanderson Way)	21,200	32,400	53%
US 70 – SR 2032 (Sanderson Way) and Pinelawn Cemetery Drive	20,300	33,600	66%
US 70 – Pinelawn Cemetery Drive and SR 1548 (Hill Farm Road)	25,400	36,200	43%
US 70 – SR 1548 (Hill Farm Road) and Walmart Drive	30,000	40,000	33%
US 70 – Walmart Drive and US 258	32,600	43,000	32%
US 70 – US 258 and Ruby Tuesday	39,600	49,000	24%
US 70 – Ruby Tuesday and Mt. Vernon Park Drive	39,700	49,000	23%
US 70 – Mt. Vernon Park Drive and US 70 Business	40,000	49,400	24%

Section Along US 70 and Existing US 70 Bypass	2015 AADT	2040 AADT	Percent Change
Existing US 70 Bypass – US 70 Business and NC 11/NC 55	29,000	40,200	39%
Existing US 70 Bypass – Between NC 11 / NC 55 and US 258/NC 58	19,000	30,400	60%
From NC 58 (Trenton Highway) to the eastern project terminus			
US 70 – Between US 258/NC 58 and Meadowbrook Drive	26,600	37,200	40%
US 70 – Meadowbrook Drive and NC 58	25,600	36,200	41%
US 70 – Between NC 58 and Lenoir Community College	16,400	29,400	79%
US 70 – Lenoir Community College and SR 1804 (Neuse Road)	16,200	27,600	70%
US 70 – SR1804 (Neuse Road) and Whaley Road	14,800	26,800	81%
US 70 – Whaley Road and SR 1821 (British Road)	14,000	26,400	89%
US 70 – SR 1821 (British Road) and SR 1309 (Caswell Station Road.) / SR 1002 (Wyse Fork Road)	13,600	25,400	87%
US 70 – SR 1309 (Caswell Station Road) / SR 1002 (Wyse Fork Road) and SR 1312 (Tilghman Road)	12,800	24,800	94%
US 70 –SR 1312 (Tilghman Road) and SR 1313 (Burkett Road)	12,600	24,800	97%
US 70 –SR 1313 (Burkett Road) and SR 1005 (Old US 70)	12,200	24,400	100%
US 70 – East of SR 1005 (Old US 70)	11,100	24,000	116%

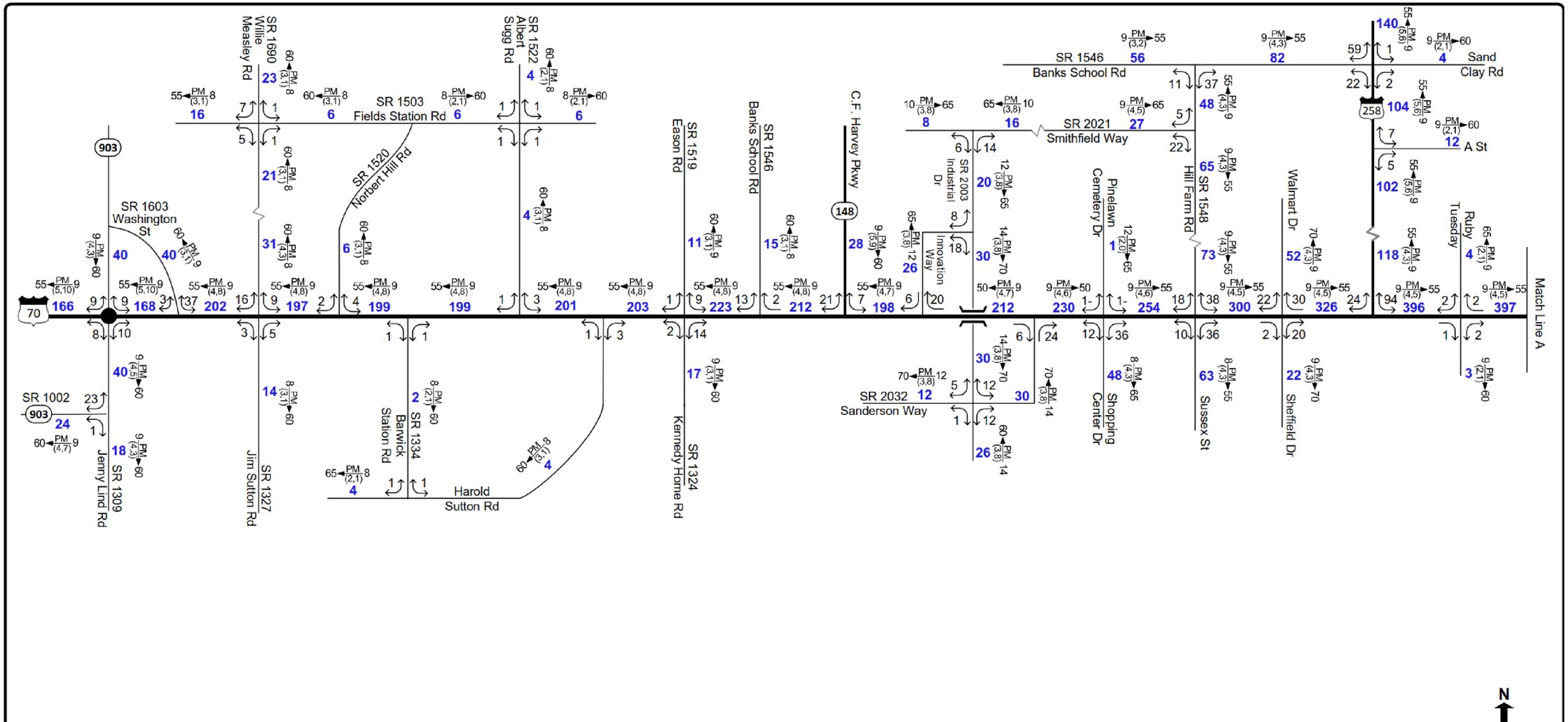
Source: NCDOT 2016b

A2 Traffic volumes for No-Build 2015 and 2040

Source: NCDOT 2016b, Parsons Brinckerhoff

Figure A-1:
2015 No-Build traffic volumes

70 KINSTON BYPASS DEIS | R-2553



2015 AVERAGE ANNUAL DAILY TRAFFIC

Scenario 1 Base Year

EXISTING CONDITIONS
SHEET 1 OF 2

L E G E N D

###	Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
	Roadway
	Future Interchange
	Existing Interchange

PM
K → D
(d, t)

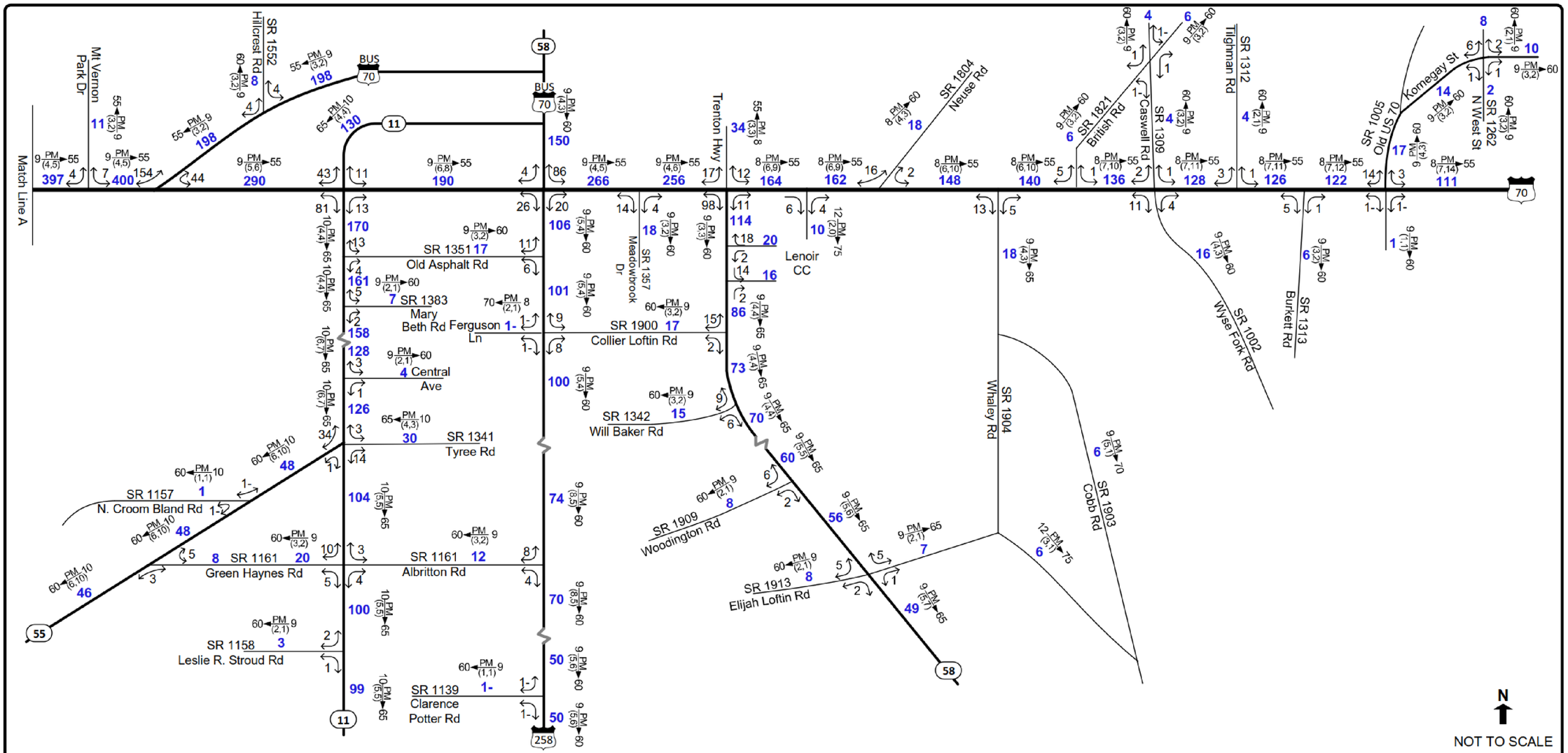
K	Design Hour Volume Percentage
PM	PM Peak Period
D	Peak Hour Directional Split
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

TIP: R-2553	**WBS:** 34460
COUNTY: Lenoir	**DIVISION:** 2
DATE: November 7, 2016	
PREPARED BY: Parsons Brinckerhoff	
LOCATION: US 70 from west of NC 903 in La Grange to east of Old US 70 in Dover	
PROJECT: US 70 Kinston Bypass	

Source: NCDOT 2016b, Parsons Brinckerhoff

Figure A-1:
2015 No-Build traffic volumes

70 KINSTON BYPASS DEIS | R-2553



2015 AVERAGE ANNUAL DAILY TRAFFIC

Scenario 1 Base Year

EXISTING CONDITIONS
SHEET 2 OF 2

L E G E N D

###	Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
——	Roadway
●	Future Interchange
●	Existing Interchange

K PM D (d, t)

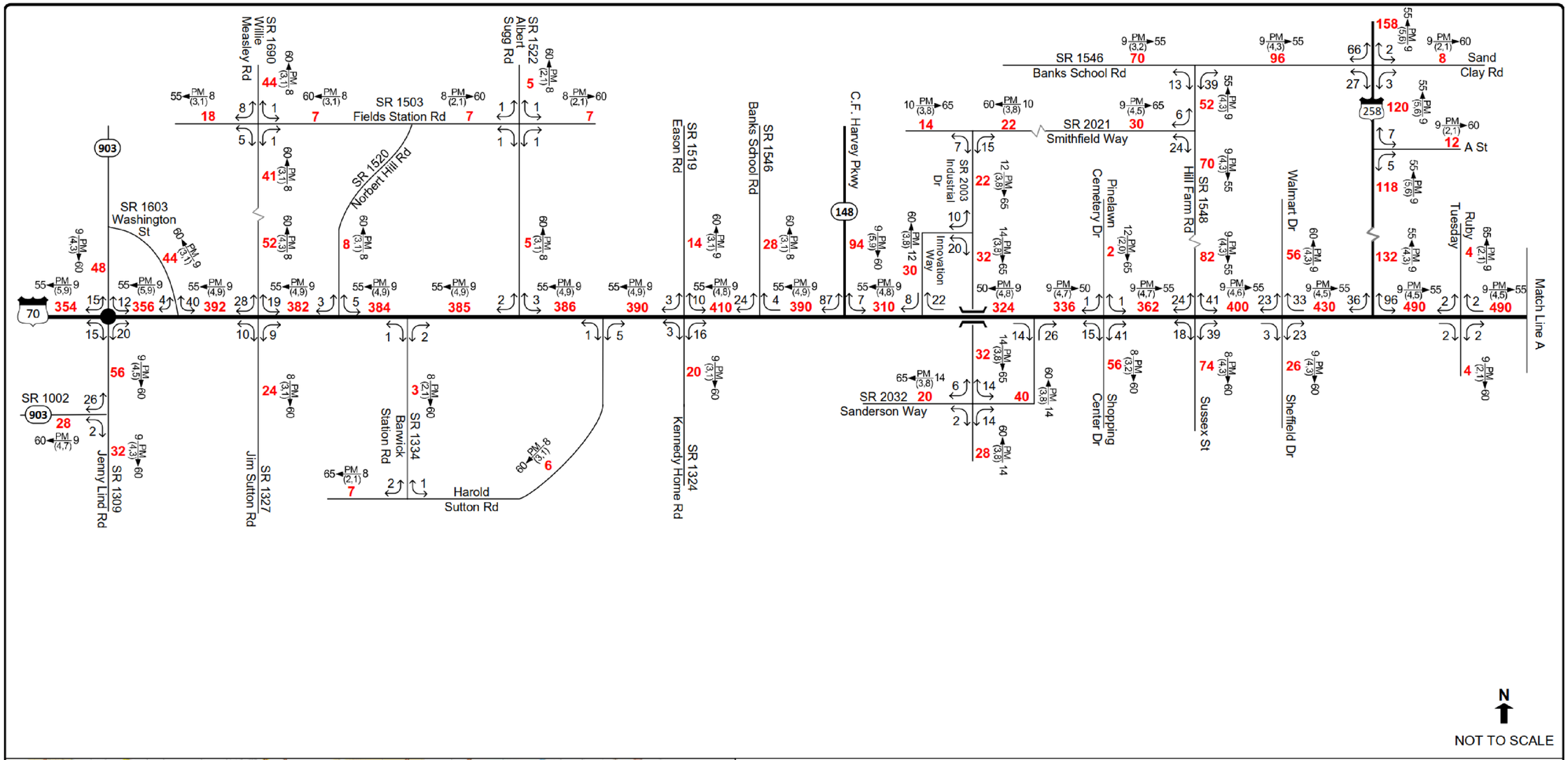
K	Design Hour Volume Percentage
PM	PM Peak Period
D	Peak Hour Directional Split
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

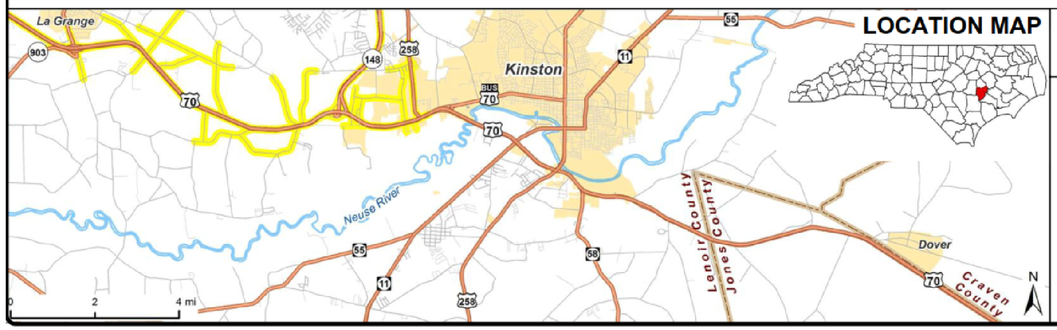
TIP: R-2553	**WBS:** 34460
COUNTY: Lenoir	**DIVISION:** 2
DATE: November 7, 2016	
PREPARED BY: Parsons Brinckerhoff	
LOCATION: US 70 from west of NC 903 in La Grange to east of Old US 70 in Dover	
PROJECT: US 70 Kinston Bypass	

Source: NCDOT 2016b, Parsons Brinckerhoff

Figure A-2:
2040 No-Build traffic volumes

70 KINSTON BYPASS DEIS | R-2553





2040 AVERAGE ANNUAL DAILY TRAFFIC

Scenario 14 Horizon Year

NO BUILD ALTERNATIVE
SHEET 1 OF 2

L E G E N D

###	Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
——	Roadway
●	Future Interchange
●	Existing Interchange

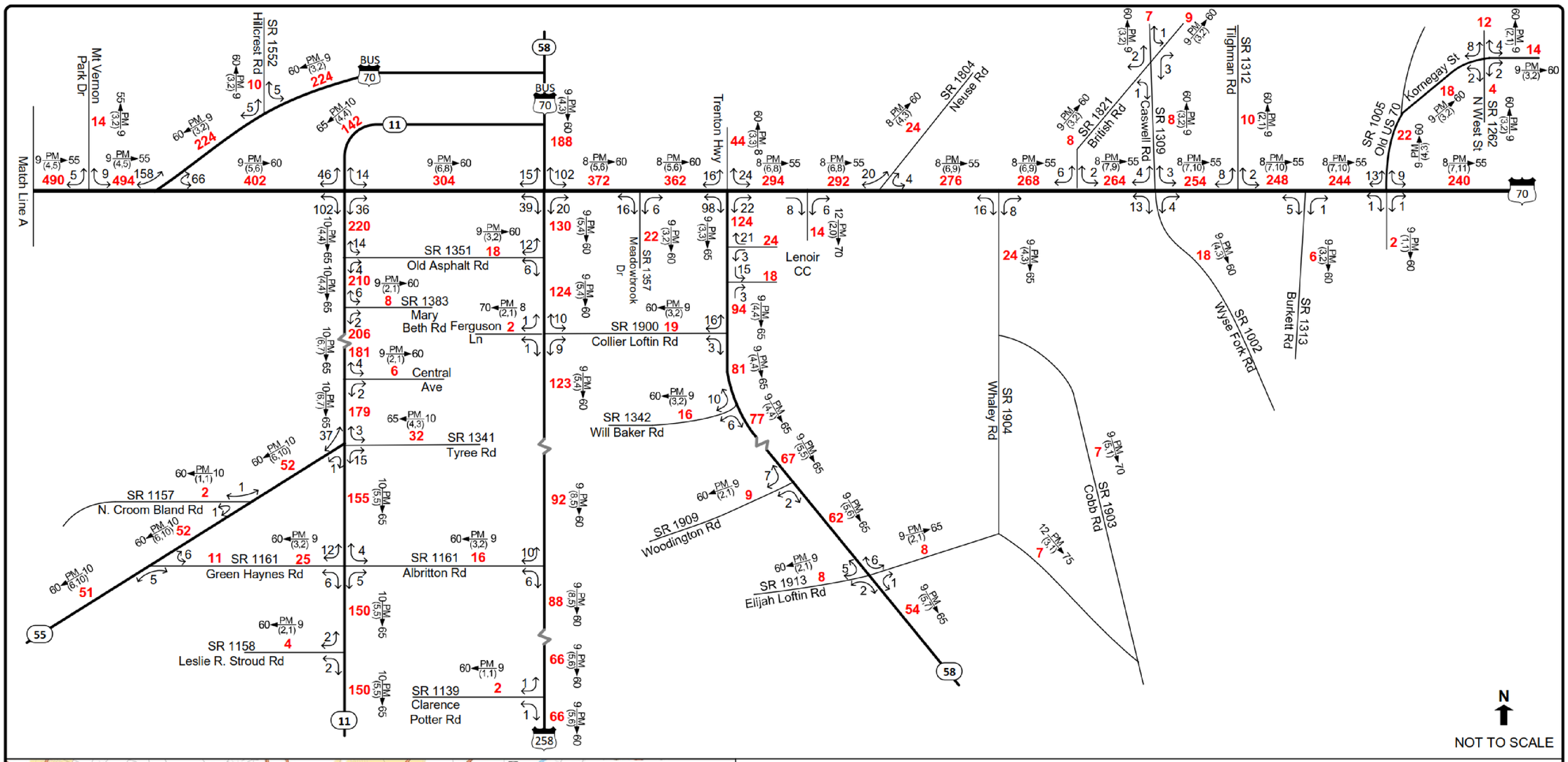
K	Design Hour Volume Percentage
PM	PM Peak Period
D	Peak Hour Directional Split
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

TIP: R-2553	**WBS:** 34460
COUNTY: Lenoir	**DIVISION:** 2
DATE: November 7, 2016	
PREPARED BY: Parsons Brinckerhoff	
LOCATION: US 70 from west of NC 903 in La Grange to east of Old US 70 in Dover	
PROJECT: US 70 Kinston Bypass	

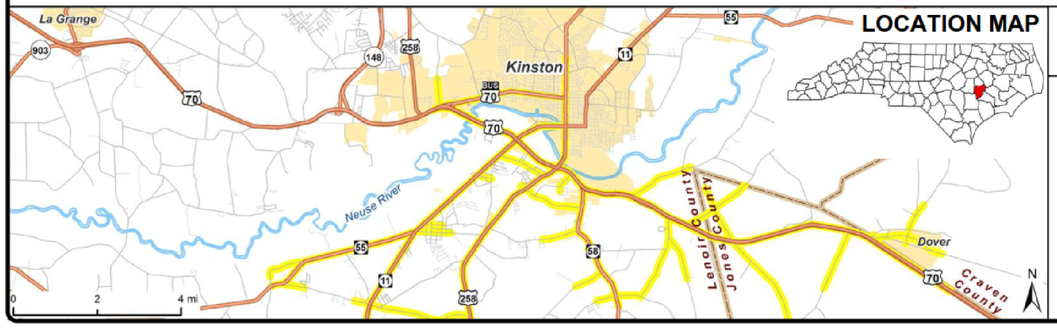
Source: NCDOT 2016b, Parsons Brinckerhoff

Figure A-2:
2040 No-Build traffic volumes

70 KINSTON BYPASS
DEIS | R-2553



N
NOT TO SCALE



2040 AVERAGE ANNUAL DAILY TRAFFIC

Scenario 14
Horizon Year

NO BUILD ALTERNATIVE
SHEET 2 OF 2

L E G E N D

###	Vehicles Per Day (VPD) in 100s	K	Design Hour Volume Percentage
1-	Less than 50 VPD	PM	PM Peak Period
X	Movement Prohibited	D	Peak Hour Directional Split
——	Roadway	→	Indicates Direction of D
●	Future Interchange	(d,t)	Duals, TT-STs (%)
●	Existing Interchange		

K PM (d, t) D

TIP: R-2553	**WBS:** 34460
COUNTY: Lenoir	**DIVISION:** 2
DATE: November 7, 2016	
PREPARED BY: Parsons Brinckerhoff	
LOCATION: US 70 from west of NC 903 in La Grange to east of Old US 70 in Dover	
PROJECT: US 70 Kinston Bypass	

APPENDIX B: GIS DATA DICTIONARY

TABLE OF CONTENTS

1.0 PURPOSE

The data dictionary has been created to keep track of the GIS datasets that are used to calculate impacts for each alternative. During project development, impacts were calculated on resources during the preliminary analysis of alternatives, and then again during the development of the Draft Environmental Impact Statement (DEIS). For each feature class, the data dictionary lists the name of the layer, abstract, name located on AECOM's Kinston file geodatabase, geometry, coverage, and sources. The dictionary also includes whether each feature class was modified by AECOM, notes, modification dates, and modification descriptions. The data dictionary is intended for use as an ongoing document that will be updated if a revised layer is delivered to AECOM and/or if AECOM makes any type of modifications to the dataset. Only layers that were used in the screening of alternatives and in the DEIS have been included in this data dictionary.

2.0 ABBREVIATION/ACRONYM LIST

ABBREVIATION/ACRONYM	MEANING
ACS	American Community Survey
C-CAP	Coastal Change Analysis Program
CCR	Community Characteristics Report
CF	Carolina flatwoods
CGIA	Center for Geographic Information and Analysis
CREWS	Coastal Region Evaluation of Wetland Significance
DEIS	Draft Environmental Impact Statement
DEM	Digital elevation model
DOE	Determination of eligibility
DMF	Division of Marine Fisheries
EPA	Environmental Protection Agency
ESRI	Environmental Systems Research Institute
EJ	Environmental justice
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood insurance rate map
FLO	Federal land ownership
FMP	Floodplain Mapping Program
HMGP	Hazard Mitigation Grant Program
LIDAR	Light detection and ranging
LMCOS	Lands managed for conservation and open space
LTCP	Land Trust Conservation Properties
LWCF	Land Water Conservation Fund
MAREA	Natural Heritage Managed Areas
NCDCM	North Carolina Division of Coastal Management
NCDEQ	North Carolina Department of Environmental Quality
NCDOT	North Carolina Department of Transportation
NCDWR	North Carolina Division of Water Resources
NCNHP	North Carolina Natural Heritage Program
NCOSA	North Carolina Office of State Archaeology
NCWRC	North Carolina Wildlife Resources Commission

ABBREVIATION/ACRONYM	MEANING
NHD	National hydrography dataset
NHEO	Natural Heritage element occurrence
NHNA	Natural Heritage natural area
NOAA	National Oceanic and Atmospheric Administration
NRHP	National Register of Historic Places
NRCS	Natural Resources Conservation Service
NRWASA	Neuse Regional Water and Sewer Authority
RCP	Rolling coastal plain
SEFT	Southeastern floodplains and terraces
SFHA	Special flood hazard area
SHPO	State Historic Preservation Office
SL	Study list
SOL	State-owned lands
SSURGO	Soil survey geographic database
USGS	United States Geological Survey
VAD	Voluntary agricultural district
VBA	Visual basic for applications
WTP	Water treatment plant
WWTP	Wastewater treatment plant

3.0 DATA LAYERS

AIRPORTS

Abstract	Point locations for airports located in North Carolina.		
Name	Airport_NC_2015	**Coverage**	North Carolina
Geometry	Point	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: 2015 Date Received: 2015 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

ANIMAL OPERATIONS

Abstract	Farming operations which have animal operation permits.		
Name	AnimalOperations	**Coverage**	North Carolina
Geometry	Point	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: December 2003 Date Received: February 2010 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

ANADROMOUS FISH SPAWNING AREAS

Abstract	Depicts the extent of anadromous fish spawning areas. Anadromous fish are fish that live mostly in the ocean but breed in freshwater.		
Name	Anad_Fish_Spawn_poly_SA	**Coverage**	Project Study Area
Geometry	Line/Polygon	**Modified by AECOM**	Yes
Sources	CGIA, NCDEQ – DMF, AECOM	**Notes**	N/A
Dates	Origination Date: N/A Date Received: October 2010 Modification Dates: May 26, 2011		
Modification Description	Two layers were initially provided by CGIA, one line layer and one polygon layer. A one-foot buffer was applied to features in the line layer (six inches on either side). Next, these features were merged with features in the polygon layer. The resulting merged polygon layer was used in the analysis.		
Data Usage	Preliminary screening of alternatives		

ARCHAEOLOGICAL SITES

Abstract	The extent of archaeological sites that have been identified in the project study area.		
Names	TArchSites_SurveyedPoly and TArchSites_SurveyedPts	**Coverage**	Lenoir County,and portions of Jones and Craven Counties within the project study area
Geometry	Point/Polygon	**Modified by AECOM**	Yes
Sources	NCOSA, AECOM	**Notes**	2 files
Dates	Origination Date: April 2011 Date Received: May 10, 2011 Modification Dates: May 26, 2011		
Modification Description	Original data was hand written on 1:24,000 paper USGS quads. These quad sheets were scanned and georeferenced. Then, archaeological site points and polygons were digitized.		
Data Usage	Preliminary screening of alternatives		

BUILDING FOOTPRINTS

Abstract	Building footprints in the project study area.		
Name	Building_Footprint_StudyArea	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	NC Office of Geospatial and Technology Management, Division of Emergency Management	**Notes**	N/A
Dates	Origination Date: 2010 Date Received: June 2011 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

CEMETERIES

Abstract	Cemeteries in the project study area.		
Names	Cemeteries_NC Cemeteries_SA	**Coverage**	Project Study Area
Geometry	Point Polygon	**Modified by AECOM**	Yes
Sources	ESRI, AECOM	**Notes**	2 files.
Dates	Origination Date: 2000 Date Received: N/A Modification Dates: 1) May 20, 2011 2) January 20, 2012 3) March 2013 4) January 2015 5) October, 2017.		
Modification Description	1. Cemeteries_NC includes cemetery locations from ESRI that were spot-checked during field work. Additional cemeteries noted during field work and at public workshops and small group meetings were added to the dataset. An additional cemetery layer from previous field work was merged after verification to prevent duplicate cemeteries. 2. Verified accuracy of points and check for missing cemeteries. 3. Verified and/or added points from fieldwork. 4. The Cemeteries_SA polygon file was created from cemeteries that are coincident to parcels and are within the project study area 5. Additional points were added based on input from small group meetings held in September, 2017.		
Data Usage	Preliminary screening of alternatives; DEIS		

CHURCHES

Abstract	Points representing churches in the project study area, and parcels that contain the churches.		
Name	Churches_26Aug2011 Churches_Parcels_StudyArea	**Coverage**	Project Study Area
Geometry	Point Polygon	**Modified by AECOM**	Yes
Sources	ESRI, AECOM	**Notes**	2 files
Dates	Origination Date: 2000 Date Received: N/A Modification Dates: 1) May 20, 2011 2) August 26, 2011 3) January 20, 2012 4) March 2013		
Modification Description	1. Church locations from ESRI were spot-checked during field work. Additional churches noted during field work and at public meetings were added to the dataset. Additional church layer from previous field work was merged after verification to prevent duplicate churches. 2. Removed two churches that did not exist. 3. Verified accuracy or points and check for missing churches. 4. Verified and/or added points from fieldwork. The Churches_Parcels_StudyArea dataset was created by selecting and exporting parcels that were coincident to the points.		
Data Usage	Preliminary screening of alternatives; DEIS		

CENSUS DATA – BLOCK GROUPS

Abstract	Used to calculate the low income and minority populations in the project study area used in the EJ analysis.		
Names	DSA_2017 BGs_High_Minority_Population_2017 BGs_High_Poverty_Minority_2017 BGs_High_Poverty_Rate_2017	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	U.S. Census, AECOM	**Notes**	4 Files
Dates	Origination Date: October, 2015 Date Received: N/A Modification Dates: October, 2017		
Modification Description	The DSA_2017 contains updated 2011-2015 ACS data which was pulled from the Census and joined to the block group file. For the purposes of determining impacts to EJ populations for the DEIS, a subset of the block groups that touched any one of the 12 alternatives was pulled from the statewide layer to represent a demographic study area. 1. The BGs_High_Minority_Population_2017 dataset was created by extracting block groups with minority rates that surpassed a threshold of 50 percent. Fifty percent was used as the threshold as the county-wide minority rate in Lenoir County was 49.5 percent. According to FHWA guidelines, the minority threshold rate is to be the lesser of either 10 percent greater than the county minority rate or 50 percent. 2. The BGs_High_Poverty_Rate_2017 dataset was created by extracting block groups with poverty rates that surpassed a threshold of 25 percent, which is the NCDOT standard threshold for determining high poverty rates within an area. Also included are block groups classified as very poor that were greater than 5 percent of the county rate in the DSA, and block groups that had populations classified as near poor that were greater than 5 percent of the county rate. 3. The BGs_High_Poverty_Rate_2017 dataset was created by extracting block groups with both poverty rates and minority rates that had surpassed their respective thresholds described above.		
Data Usage	Preliminary screening of alternatives; DEIS		

CENSUS DATA - BLOCKS (2010)

Abstract	Used to calculate the minority populations in the project study area for the EJ analysis for the Community Impact Assessment.		
Names	Census_blocks_2000_DSA Census_Blocks_2010_SA Census_Blocks_high_minor_2010	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	U.S. Census, AECOM	**Notes**	3 Files
Dates	Origination Date: October 5, 2011 Date Received: N/A Modification Dates: N/A		
Modification Description	The Census_blocks_2010_SA contains Census block data that are located within the project study area. For the purposes of corridor screening, it was determined that given the variation in size of census blocks it would make the most sense to compare EJ impacts to the amount of acres of each corridor that fell within an impacted minority census block. The EJ analysis was completed using 2010 census data due to limitations in census data from more recent data releases. For minority populations, the calculations were completed at the census block level based on a threshold of 50 percent. 50 percent was used as the three counties within the project study area had respective county-wide minority rates of less than 50 percent. According to FHWA guidelines, the minority threshold rate is to be the lesser of either 10 percent greater than the county minority rate or 50 percent.		
Data Usage	Preliminary screening of alternatives		

CENSUS DATA - BLOCKS (2000)

Abstract	Used to more precisely identify the location of potential EJ populations for the Community Characteristics Report.		
Name	Census_blocks_2000_DSA	**Coverage**	Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	U.S. Census, AECOM	**Notes**	N/A
Dates	Origination Date: 2001 Date Received: August, 2009 Modification Dates: N/A		
Modification Description	The Census_blocks_2000_DSA contains Census block data that are located within the project study area. The data was used in field visits to help identify more precisely the location of potential EJ populations in the study area. For minority populations, the calculations were completed at the census block level based on a threshold of 50 percent. 50 percent was used as the three counties within the project study area had respective county-wide minority rates of less than 50 percent. According to FHWA guidelines, the minority threshold rate is to be the lesser of either 10 percent greater than the county minority rate or 50 percent.		
Data Usage	Preliminary screening of alternatives		

EASEMENTS

Abstract	Points and boundaries represent conservation easements that require land to be maintained in its natural state. Easements relate to state, local, and nonprofit funding resources. Through the course of the project, the data was consolidated by the NCNHP into the managed area layer available from NCNHP and NC CGIA		
Name	Conservation_Easement_pts Conservation_Easement marea_170731	**Coverage**	Statewide
Geometry	Polygon	**Modified by AECOM**	No
Sources	NC CGIA,NCNHP	**Notes**	Files
Dates	(Conservation_Easement_pts): • Origination Date: August, 2006 • Date Received: Between 2006 and 2011 • Modification Dates: June 6, 2011 marea_171031 • Origination Date: October, 2017 • Date Received: October, 2017 • Modification Dates: N/A		
Modification Description	The conservation easements point layer was provided by NC CGIA as off-site mitigation sites. The conservation easements polygon layer was created by AECOM in 2011 and represents the known locations of properties for conservation easements within the three-county region surrounding the Kinston Bypass project. It is comprised of features from the following layers available from NC CGIA: Natural Heritage Managed Areas (MAREA where OWNER_TYPE = 'Easement'), Land Trust Conservation Properties (LTCP where TYPEACQ = 'EASEMENT' or TYPEACQ = 'PRESERVE'), and State-Owned Lands (SOL where ComplexNam contains the word 'EASEMENT' or 'EASEMENTS'). In addition, three parcels from Lenoir County GIS parcel data were included because their attributes indicated them as environmental conservation easements.		
Data Usage	Preliminary screening of alternatives; DEIS		

FARMLAND SOILS

Abstract	Prime and other important farmland soils.		
Name	Farmland_Prime_Unique_StudyArea_Clip	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	USDA and NRCS	**Notes**	N/A
Dates	Origination Date: June, 2009 Date Received: June, 2009 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

FEDERAL LAND OWNERSHIP

Abstract	A record of federal land ownership in the project study area. There are no federal lands in the project study area.		
Name	Federal_Lands_NC_171031	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: 1993 with periodic updates through 2017 Date Received: October, 2017 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

FIRE STATIONS

Abstract	Fire station locations.		
Name	Fire_Stations_SA	**Coverage**	North Carolina
Geometry	Point	**Modified by AECOM**	Yes
Sources	NC OneMap	**Notes**	N/A
Dates	Origination Date: 2005 with periodic updates through August 2008 Date Received: February 2011 Modification Dates: 1) May 5, 2011 2) April 16, 2011		
Modification Description	1. Added fire stations that were located during field work and noted by public officials. Verified stations using aerial imagery. 2. Added new Sandy Bottom Volunteer Fire Department at Hwy 55 and S. Croom Bland Road.		
Data Usage	Preliminary screening of alternatives; DEIS		

HAZARD MITIGATION GRANT PROGRAM (HMGP) (FEMA BUYOUT PROPERTIES)

Abstract	FEMA buyout properties through the HMGP from hurricanes Floyd and Fran.		
Name	FEMA_Buyouts_2017	**Coverage**	Lenoir County
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	CGIA, AECOM	**Notes**	N/A
Dates	Origination Date: May 2010 Date Received: November 2010 Modification Dates: 1) May 2011, 2) August 2014, 3) October, 2017		
Modification Description	1. Initial data from CGIA originated in three files: Kinston buyouts, Lenoir County buyouts from Hurricane Floyd, and Lenoir County buyouts from Hurricane Fran. These three files were combined into a single polygon layer and duplicate features were removed. This data includes parcels that were bought with funds from the FEMA and the HMGP. 2. In August of 2014 the FEMA buyouts which were located south of the Neuse River were removed and were replaced with an updated FEMA Buyout layer provided by Lenoir County. Parcels located north of the Neuse River remained the same. 3. In October of 2017, a new updated layer was provided to AECOM by Lenoir County.		
Data Usage	Preliminary screening of alternatives; DEIS		

FLOODPLAINS

Abstract	Represents the area within the flood mapping boundaries defined by the engineering models for the 100-year floodplain, 500-year floodplain, and floodway. Contains information about the flood hazard within the project study area. These zones are used by FEMA to designate the Special Flood Hazard Area (SFHA), identify areas of coastal high hazard flooding, and for insurance rating purposes. These data are the flood hazard areas that are depicted on the FIRM (floodplains A and AE).		
Name	Floodplain_StudyArea	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	FMP, AECOM	**Notes**	N/A
Dates	Origination Date: N/A Date Received: December 2017 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

GAMELANDS

Abstract	Gamelands are lands that are regulated for the purpose of hunting, trapping and fishing. This data layer identifies publicly-owned gamelands managed by the NCWRC.		
Name	Gamelands_NC_20100701	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: Most recent update 2010 Date Received: February 2011 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

GLOBAL TRANSPARK (GTP)

Abstract	Global Transpark's airport boundary, Kinston Regional Jetport.		
Name	Global_Transpark_Main	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: August 2009 Date Received: November 2010 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

GTP COMPLEX BOUNDARY

Abstract	Global Transpark's multi-modal industrial park boundary.		
Name	GLOBAL_TRANSPARK_LIMITS_090807	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: August 2009 Date Received: November 2010 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

HAZARDOUS MATERIALS SITES

Abstract	The NC Department of Transportation Geotechnical Engineering Unit, GeoEnvironental Section provided the GIS data set, GeoEnvironmental Sites of Concern, to enhance planning, siting, and impact analysis in areas directly affected by GeoEnvironmental Sites of Concern. The point data identifies locations of sites of concern such as underground storage tanks, landfills, and auto salvage yards within the project corridors.		
Name	Hazardous_Material_Sites_17_12_19	**Coverage**	Project Study Corridors
Geometry	Point	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: June, 2017 Date Received: December, 2017 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

HISTORIC RESOURCES

Abstract	Historic property and district designations in North Carolina (not including archaeological sites): National Register of Historic Places (NRHP) listings, Study list (SL) entries for potential nomination to the NRHP, and Determinations of Eligibility (DOE) under Section 106 of the National Historic Preservation Act of 1966, as amended.		
Name	Historic_Resources Historic_Property_Boundary	**Coverage**	Project Study Area
Geometry	Point/Polygon	**Modified by AECOM**	Yes
Sources	SHPO, AECOM	**Notes**	2 files
Dates	Origination Date: November 2010 Date Received: May 10, 2011 Modification Dates: 1) May 1, 2011 2) February 16, 2012 3) November, 2017		
Modification Description	1. Historic resource points that lie within the modified historic resource polygons were removed to prevent duplication in the datasets. This includes NRHP listings, SL, and Determined Eligible properties. Several other features were added from GIS data generated for the NCDOT Crescent Road (TIP R-2719-A) project. A polygon was also added for the Wyse Fork property from GIS data provided by the NCOSA. 2. Added contributing elements to the Wyse Fork Battlefield District. The contributing elements came from a figure attached to a memo from NCDOT June 4, 2009. 3. Based on consultations with USACE, NCDOT and SHPO in November 2017, a number of surveyed resources within the APE were found to be not NRHP-eligible, so are not included in the DEIS. Boundaries of NRHP-eligible properties were modified as needed for accuracy.		
Data Usage	Preliminary screening of alternatives; DEIS		

HOUSING AUTHORITY

Abstract	Housing authority properties in Kinston, NC.		
Name	Housing_Authority_KI_20090825	**Coverage**	Kinston
Geometry	Polygon	**Modified by AECOM**	No
Sources	City of Kinston, Planning Department	**Notes**	N/A
Dates	Origination Date: August 2009 Date Received: November 2010 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

HOSPITAL

Abstract	Hospital locations.		
Name	Hospital_NC_20080920	**Coverage**	Statewide
Geometry	Point	**Modified by AECOM**	No
Sources	NC OneMap	**Notes**	N/A
Dates	Origination Date: September 2008 Date Received: March 2011 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

INLAND PRIMARY NURSERY AREAS

Abstract	Primary nursery areas in inland waters are described in the North Carolina Administrative Code as "those areas inhabited by the embryonic, larval or juvenile life stages of marine or estuarine fish or crustacean species due to favorable physical, chemical, or biological factors."		
Name	Inland_Primary_Nursery_Areas	**Coverage**	Statewide
Geometry	Polygon	**Modified by AECOM**	No
Sources	NCWRC	**Notes**	N/A
Dates	Origination Date: 2008 Obtained May 2010		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

MANAGED AREAS

Abstract	The NCNHP's Managed Areas shapefile is primarily a collection of fee simple properties and easements where conservation is one of the management goals. It does include a number of properties and easements that are not primarily managed for conservation, but that are of conservation interest.		
Name	marea_170731	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	NCNHP	**Notes**	N/A
Dates	Origination Date: October, 2017 Date Received: October, 2017		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

MOUNTAINS TO SEA TRAIL

Abstract	The Mountains-to-Sea Trail stretches from Clingmans Dome in the Great Smoky Mountains to Jockey's Ridge on the Outer Banks.		
Name	Mountains_to_Sea_Trail	**Coverage**	Project Study Area
Geometry	Line	**Modified by AECOM**	Yes
Sources	NC Division of Parks and Recreation, AECOM	**Notes**	N/A
Dates	Origination Date: 2008 (line feature class), June 2011 (polygon feature class) Date Received: December 2010 (line feature class), Modification Dates: March 2013		
Modification Description	In March of 2013, the Mountains-to-Sea Trail line file was updated to follow the street centerline, and adjusted near NC 1313, US-70, and Old US-70 in Dover, as shown on the Friends of the Mountains-to-Sea Trails website.		
Data Usage	Preliminary screening of alternatives; DEIS		

MUNICIPAL AREA

Abstract	Statewide municipal boundaries service - Based on the Powell Bill Program maps for the 2015-2016 fiscal year.		
Name	Municipal_Boundary_20171212	**Coverage**	North Carolina
Geometry	Point	**Modified by AECOM**	No
Sources	NC OneMap (Powell Bill Administration)	**Notes**	N/A
Dates	Origination Date: 2016 Date Received: November 2017 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

NATURAL HERITAGE ELEMENT OCCURRENCES

Abstract	The NCNHP's Element Occurrences identify occurrences of rare plants and animals, exemplary or unique natural communities, and important animal assemblages. Collectively, these plants, animals, natural communities, and animal assemblages are referred to as "elements of natural diversity" or simply as "elements". This data includes threatened and endangered species that are federally protected.		
Name	NCNHP_NHEO_2017	**Coverage**	Beaufort, Craven, Greene, Jones, Lenoir, Pamlico, and Pitt counties
Geometry	Polygon	**Modified by AECOM**	No
Sources	NCNHP	**Notes**	N/A
Dates	Origination Date: October, 2017 Date Received: October, 2017 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

NATURAL GAS LINE

Abstract	Natural gas lines of Lenoir County.		
Name	Utility_Natural_Gas_LC_20090807	**Coverage**	Lenoir County
Geometry	Line	**Modified by AECOM**	Yes
Sources	Lenoir County Planning Dept., AECOM	**Notes**	N/A
Dates	Origination Date: 2009 Date Received: August 2009 Modification Dates: N/A		
Modification Description			
Data Usage	Preliminary screening of alternatives		

NOTABLE FEATURES

Abstract	Points located within the project study area that will reference the user to locations of community features and resources, identified through public involvement events and field visits.		
Name	Notable_Features_SA	**Coverage**	Project Study Area
Geometry	Point	**Modified by AECOM**	Yes
Sources	AECOM	**Notes**	N/A
Dates	Origination Date: N/A Date Received: N/A Modification Dates: 1) February 2012 2) updated March 2013 3) updated August 2014.		
Modification Description	1. February 2012 before the CIW #3 meeting in Kinston. 2. As of June 20, 2012 there are 52 Notable Features. 3. In March of 2013 there were 46 Notable Features. 4. As of the last update in August 2014, there are 31 Notable Features. Examples are Battle of Kinston sites, National Guard Armory, Lenoir County Landfill, Lenoir County Fairgrounds, etc.		
Data Usage	Preliminary screening of alternatives; DEIS		

ON-SITE MITIGATION

Abstract	Represents the approximate location of NCDOT mitigation sites within the project study area. The area includes portions of Lenoir, Craven, and Jones counties. This file is a subset of a geodatabase.		
Name	MitigationSites_LC_2015_01	**Coverage**	Portions of Lenoir, Craven, and Jones counties
Geometry	Polygon	**Modified by AECOM**	No
Sources	NCDOT	**Notes**	N/A
Dates	Origination Date: January 2015 Date Received: January 2015 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

OTHER STATE OWNED LANDS

Abstract	The North Carolina Department of Administration, State Property Office, in cooperation with CGIA, developed the GIS dataset, state-owned complexes, to define the exterior boundaries of state-owned complexes in North Carolina; (e.g., NCDOT maintenance yards, state parks, universities, etc.)		
Name	OtherStateOwnedLand_170201	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	CGIA, AECOMAECOM	**Notes**	N/A
Dates	Origination Date: December, 2016 Date Received: February 2017 Modification Dates: N/A		
Modification Description	AECOM		
Data Usage	Preliminary screening of alternatives; DEIS		

PARCELS

Abstract	Tax parcels for Lenoir, Craven, Pitt and Jones counties. This file is a subset of a geodatabase.		
Names	nc_craven_parcels_poly_2017_04_20 nc_jones_parcels_poly_2017_03_27 nc_lenoir_parcels_poly_2017_04_13 Parcels_PC_20110321,	**Coverage**	Lenoir, Craven, Pitt and Jones counties
Geometry	Polygon	**Modified by AECOM**	No
Sources	Lenoir, Craven, Pitt and Jones counties	**Notes**	4 Files
Dates	Origination Date: March/April, 2017 Date Received: June, 2017 Modification Dates: N/A		
Modification Description	Previous versions of tax parcels are saved in an archived feature dataset.		
Data Usage	Preliminary screening of alternatives; DEIS		

PARKS

Abstract	Locations of known parks within the project study area.		
Name	Park_StudyArea	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	Craven County GIS, Lenoir County GIS, CGIA, AECOM	**Notes**	N/A
Dates	Origination Date: 2007 Date Received: November 2010 Modification Dates: May 5, 2011		
Modification Description	There are no federal or state parks within the project study area; therefore, the parks included in this layer are county or city parks. Using the parcel data, properties within the project study area which are owned by the county and municipalities were queried. For Lenoir County, the queried data was searched, record by record, for the words “park,” “recreation,” “field,” “basketball,” etc. These parcels were copied to a new layer. For Craven County, the Craven County GIS website was used to determine the locations of parks within the county. Parcels identified as parks were selected and copied to a new layer. According to Jones County GIS staff and a search of the parcels, there are no parks within the portion of Jones County in the project study area. Parcels from Lenoir and Craven counties were combined to produce this layer. The LMCOS layer from CGIA was also used to help identify parks.		
Data Usage	Preliminary screening of alternatives; DEIS		

POLICE OR EMS

Abstract	Police station and EMS locations.		
Name	EMS_NC_20171207 EMS_NC_20171207_Poly	**Coverage**	North Carolina Project Study Area
Geometry	Point Polygon	**Modified by AECOM**	Yes
Sources	NC OneMap	**Notes**	2 files
Dates	Origination Date: August 2008 Date Received: February 2011 Modification Dates: 1) February 2012 2) November 2017		
Modification Description	1. Verified accuracy of points. 2. Verified the accuracy of points The EMS_NC_20171207_Poly dataset was created by selecting and exporting parcels that were coincident to the points		
Data Usage	Preliminary screening of alternatives; DEIS		

RAILROAD

Abstract	Railroad network for the state of North Carolina		
Name	Railroads_New	**Coverage**	Statewide
Geometry	Line	**Modified by AECOM**	No
Sources	NCDOT	**Notes**	N/A
Dates	Origination Date: 2014 Date Received: 2014 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

ROADS

Abstract	GIS road layers located in the project study area.		
Name	Roads_ISRN_LC_200708 Roads_DOT_NC_2013_4thQuarter	**Coverage**	Statewide and Lenoir County
Geometry	Line	**Modified by AECOM**	No
Sources	NCDOT	**Notes**	3 files
Dates	Origination Date: September 2008 for Roads_DOT_NC_200509, August 2007 for Roads_ISRN_LC_200708, October, 2013 for 4th Quarter NC DOT Road Data Date Received: N/A Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

SCHOOLS

Abstract	Parcels of public and non-public schools in the project study area.		
Name	Schools_pt Schools_poly	**Coverage**	Statewide
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	CGIA, AECOM	**Notes**	2 files
Dates	Origination Date: December 2007 for school points, September 2012 for school parcels Date Received: February 2011 school points Modification Dates: 1) September 28, 2012 2) December 2017		
Modification Description	1. Public and non-public school layers were combined and then verified using Google Earth. The dataset was updated based on the findings. The school parcels were created from school points that are coincident with the school points. 2. The files were updated in December 2017 to remove two schools that had closed. The two schools were within the project study area, but outside of the project alternative footprints.		
Data Usage	Preliminary screening of alternatives; DEIS		

SECTION 6(F) PROPERTIES

Abstract	Represents known locations of section 6(f) properties.		
Name	Section_6F_Properties	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	AECOM, CGIA, LWCF	**Notes**	N/A
Dates	Origination Date: May 2011 Date Received: N/A Modification Dates: N/A		
Modification Description	The Section 6(f) layer was created by AECOM in May 2011 and represents known locations which are classified as 6(f). A property is classified as 6(f) if funds used to purchase it were derived from the Land Water Conservation Fund (LWCF). Tabular data about LWCF-purchased properties was downloaded from the LWCF website (http:\\waso-lwcf.ncrc.nps.gov\public\index.cfm, on 09 May 2011) and was used as a basis for determining which areas are classified as 6(f). Records in the tabular data were identified using features from the following layer available from CGIA: LMCOS. Several tax parcels from Lenoir County tax parcel GIS were also included because they are adjacent to properties listed in the LWCF data and have similar parcel attribute information to parcels included in the LWCF table.		
Data Usage	Preliminary screening of alternatives; DEIS		

NHP NATURAL AREAS

Abstract	Depicts areas containing ecologically significant natural communities or rare species.		
Name	Significant_Natural_Heritage_Area_StudyArea	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: October 2017 Date Received: December, 2017 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives; DEIS		

STREAMS

Abstract	A jurisdictional stream model was created by the North Carolina Division of Water Resources (NCDWR) for use in place of stream delineations for the project. The data generated for the project consisted of stream lines within the three (EPA) Level IV ecoregions that were present in the larger project study area for the entire project. The ecoregions present were Rolling Coastal Plain (RCP), Carolina Flatwoods (CF) and Southeastern Floodplains and Terraces (SEFT). Jurisdictional stream models were developed for the RCP and CF ecoregions and were created by utilizing 20-foot grid cell digital elevation models (DEM) generated from bare-earth Light Detection and Ranging (LIDAR) data and subsequent terrain derivatives and other ancillary data as variables. The models were developed in SAS 9.2 as binary logistic regression models. The National Hydrography Dataset (NHD) flowlines were used for SEFT in lieu of a model due to this ecoregion being heavily manipulated and impractical to model accurately. NHD is similar to USGS 24k hydrolines, but does not include 'double line' streams and polygons that appear in USGS 24k line.		
Name	Streams_DWQ_20130129FINAL	**Coverage**	Project Study Area
Geometry	Line	**Modified by AECOM**	Yes
Sources	NCDWR, AECOM	**Notes**	2 Layers
Dates	Origination Date: January 29, 2013 line feature class (previous version has been moved to the archive folder) Date Received: February 4, 2013 Modification Dates: N/A		
Modification Description	The line dataset has not been edited and is used for mapping and analysis purposes.		
Data Usage	Preliminary screening of alternatives; DEIS		

SWINE LAGOONS

Abstract	Locations of swine lagoons within North Carolina (used in conjunction with animal operations).		
Name	Swine_Lagoon_NC_20031006	**Coverage**	Statewide
Geometry	Point	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: October 2003 Date Received: February 2011 Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

TERRESTRIAL COMMUNITIES

Abstract	North Carolina's Coastal Change Analysis Program Regional Land Cover Data (C-CAP) were used to identify terrestrial communities in the NRTR study area. These community types were verified with aerial photography and USGS topographic mapping.		
Name	CCAP_TerrestrialCommunities_SA	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	NOAA	**Notes**	N/A
Dates	Origination Date: 2011 Modification Dates: October, 2017		
Modification Description	C-CAP classifications were combined to produce the natural communities. In order to remain consistent with the number and types of terrestrial communities typically presented, the C-CAP classes were initially grouped into larger terrestrial community types based on similarities between C-CAP classes.		
Data Usage	Preliminary screening of alternatives; DEIS		

TRANSMISSION LINE

Abstract	The USGS National Mapping Division created the 1:24,000-scale pipe and transmission data for their published maps. CGIA developed the NC statewide transportation-miscellaneous (1:24,000) digital data as a base layer showing pipe and transmission lines. This data was compiled directly from the digital line graphs.		
Name	Utility_PowTransLn090807	**Coverage**	Statewide
Geometry	Polygon	**Modified by AECOM**	No
Sources	CGIA	**Notes**	N/A
Dates	Origination Date: December 1998 Date Received: N/A Modification Dates: N/A		
Modification Description	N/A		
Data Usage	Preliminary screening of alternatives		

VOLUNTARY AGRICULTURAL DISTRICTS (VAD)

Abstract	Farm districts preserved against non-farm development. Designation as a VAD offers landowners a voluntary, non-binding means of preserving farmland against non-farm development. The designation enables landowners to increase visibility of farm and forestlands and encourages preservation and protection of farmland.		
Name	VADs_2018	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	Craven County GIS, Jones County GIS, Lenoir County GIS, AECOM	**Notes**	N/A
Dates	Origination Date: May 2011 Date Received: N/A Modification Dates: 1) December 12, 2011 2) December 2017		
Modification Description	According to the Lenoir County Extension office on May 23, 2011 and again in the spring of 2013, there were no VADs in Lenoir County. Only VAD's in Jones and Craven County were included in the initial layer. 1. VAD's in Jones County identified, and the layer was created. 2. County websites were consulted in December 2017 and additional VAD's were added to the layer, including VAD's in Lenoir County.		
Data Usage	Preliminary screening of alternatives; DEIS		

WATER TREATMENT PLANTS

Abstract	WTP in project study area.		
Name	WTP_StudyArea WTP_Parcels_SA	**Coverage**	Project Study Area
Geometry	Point, Polygon	**Modified by AECOM**	Yes
Sources	CGIA, NRWASA, AECOM	**Notes**	2 files
Dates	Origination Date: February 2010 for WTP_StudyArea, December 2011 for WTP_Parcels_SA Date Received: November 2010 (points) Modification Dates: May 10, 2011		
Modification Description	1. In data from CGIA, wastewater and water treatment plants were included in a single layer. AECOM broke these features out into two different layers (wastewater treatment plants and water treatment plants) for this project. Next, features included in the data from NRWASA were added. Then, features were field verified during the CCR portion of the Kinston Bypass project. 2. The WTP parcels were created from WTP points that are coincident.		
Data Usage	Preliminary screening of alternatives		

WASTEWATER TREATMENT PLANTS

Abstract	WWTP in project study area.		
Name	WWTP_StudyArea WWTP_Parcels	**Coverage**	Project Study Area
Geometry	Point, Polygon	**Modified by AECOM**	Yes
Sources	CGIA, NRWASA, AECOM	**Notes**	2 files
Dates	Origination Date: February 2010 for WWTP_StudyArea, December 2011 for WWTP_Parcels Date Received: November 2010 (points) Modification Dates: May 10, 2011		
Modification Description	In data from CGIA, wastewater and water treatment plants were included in a single layer. AECOM broke these features out into two different layers (wastewater treatment plants and water treatment plants) for this project. Next, features included in the data from NRWASA were added. Then, features were field verified during the CCR portion of the Kinston Bypass project. The WWTP parcels were created from WWTP points that are coincident.		
Data Usage	Preliminary screening of alternatives		

WATER TANKS

Abstract	Water Tanks in Lenoir County.		
Name	Water_Tanks_LC_20100219	**Coverage**	Lenoir County
Geometry	Point	**Modified by AECOM**	Yes
Sources	Lenoir County Planning Department	**Notes**	N/A
Dates	Origination Date: February 2010 Date Received: November 2010 Modification Dates: March 2013		
Modification Description	Additional water tanks noted during field work, at public workshops, or small group meetings were added to the dataset.		
Data Usage	Preliminary screening of alternatives		

WETLANDS

Abstract	A jurisdictional wetland model was created by NCDOT for the project. The resulting model includes the following wetland types: Non-Riparian Rolling Coastal Plain Wetland, Riparian Rolling Coastal Plain Wetland, Non-Riparian Flatwood Wetland, Riparian Flatwood Wetland, and Floodplain Wetland. The model utilizes 20' grid cell digital elevation models generated from bare-earth LiDAR data and subsequent terrain derivatives as variables. The model is developed in SAS 9.2 as a binary logistic regression model.		
Name	Wetlands_SA_Merged	**Coverage**	Project Study Area
Geometry	Polygon	**Modified by AECOM**	Yes
Sources	NCDOT, AECOM	**Notes**	N/A
Dates	Origination Date: May 2011 Date Received: May 2011 Modification Dates: 1) May 2011 2) October, 2017		
Modification Description	1. The original raster file was converted to a polygon layer. First, the raster file was converted to an integer file so that geoprocessing could occur. Next, the Raster to Polygon tool was used to convert the integer raster to a single polygon layer. 2. An updated set of models was developed using the next generation LiDAR data that was in the process of being acquired statewide. The purpose of these models, referred to as the 2017 QL2 models, were requested by the resource agencies to study the effects of using the next generation LiDAR in the models as compared to the legacy LiDAR data in the original 2011 models.		
Data Usage	Preliminary screening of alternatives; DEIS		

4.0 IMPACT CALCULATION

Impact calculations for the Kinston Bypass project were performed using the Clip tool, but in different formats and environments for various stages of the study. Early on in the study, calculations were done using a Visual Basic for Applications (VBA) script which clipped resources within the boundary of alternatives (see Figure 1). This script did not allow the user to control the name of the output files, which created data management challenges. In addition, newer versions of ArcGIS do not support VBA scripting. Newer versions of ArcGIS use Python for scripting.

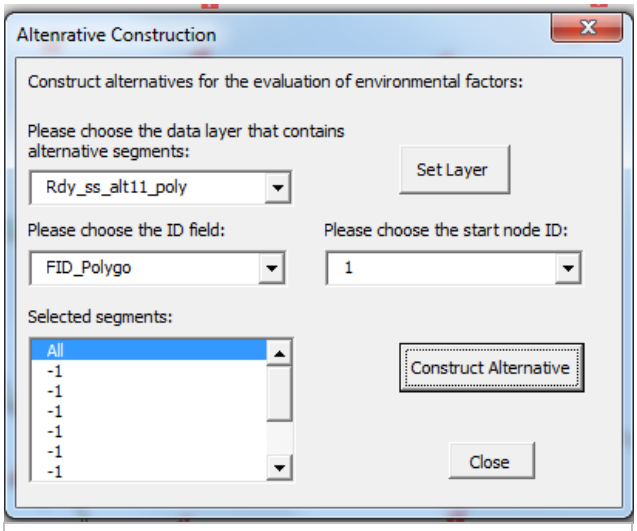


Figure 1: VBA Dialogue box

For this reason, later versions of impact calculation were done using the batch clip tool, which allowed using more descriptive names in the outputs (e.g., ”Floodplains_36”). While this method is effective, using batch clip is a repetitive, labor intensive process that requires careful entry of output names and that also required the GIS operator to individually calculate area and length for each resource being impacted.

For the DEIS, an impact calculation geoprocessing tool was built using Python scripting. Python scripting allows for the creation of a tool that can string together sequences of geoprocessing tools, feeding the output of one tool into another tool as input. The benefits of building a geoprocessing tool for calculating impacts are that it allows repetitive geoprocessing to be conducted in an automated environment. An additional benefit for impact calculation is that, through the use of a variable naming convention, output files can be logically named based on the environmental feature and associated alternative (e.g., Cemeteries_Alt32_ROW).

The geoprocessing tool acts as a batch clip, clipping resources to a designated boundary, which for the DEIS was either the slope stakes of the individual alternatives plus 40 feet or the right-of-way for the alternative. After the files have been clipped, a second step in the process adds a column in the output table, and calculates the area (acres) or length (linear feet) of the feature (see Figure 2).

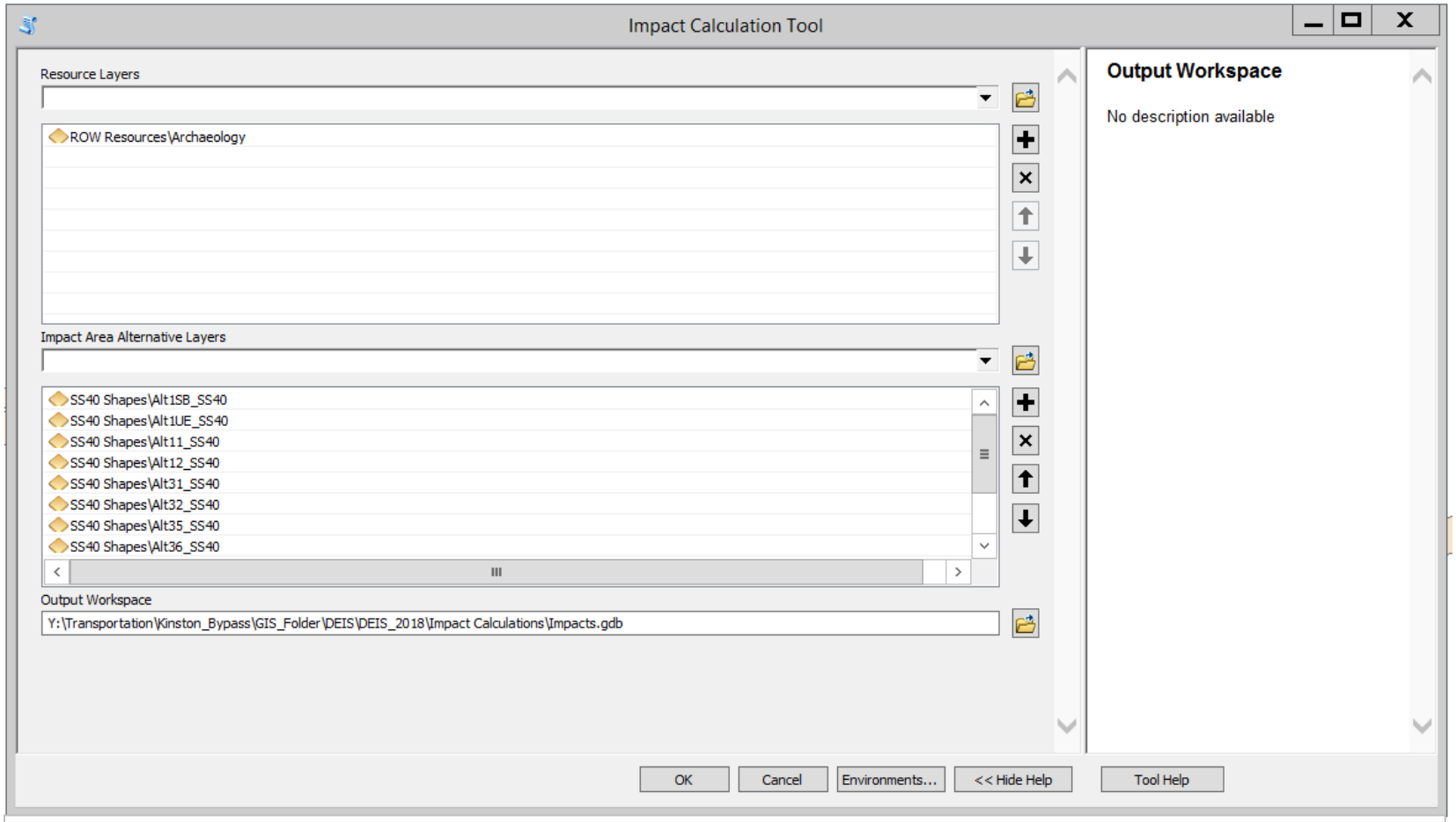


Figure 2 – Impact Calculation Tool

APPENDIX C: ALTERNATIVES ANALYSIS

Contents
C-1 Preliminary alternative segment combinations
C-2 Preliminary alternative segment summary of impacts (500-foot corridor width)
C-3 Preliminary alternative summary of impacts (500-foot corridor width)
C-4-Major hydraulic crossings and proposed structures

C-1 Preliminary alternative segment combinations

Table C-1: Preliminary alternative segment combinations

Corridor (N=Northern Bypass, S=Southern Bypass)	Segment																																																										
	1A	2A	2B	3A	3B	4A	4B	5A	5B	5C	6A	6B	7A	7B	8A	8B	9A	10A	11A	12A	12B	12C	13A	14A	14B	15A	15B	16A	16B	17A	18A	18B	19A	20A	20B	21A	22A	23A	23B	24A	24B	25A	25B	26A	26B	27A	27B	28A	29A	29B	30A	31A	32A	33A	34A	35A	39A	39B	40A	41A
1	1A		2B	3A							6A										12B																														30A		32A	33A	34A	35A				
2(N)	1A		2B	3A							6A									12A			13A						16B	17A					20B																		32A	33A	34A	35A				
3(N)	1A		2B	3A							6A									12A			13A						16B	17A				20A		21A																		33A	34A	35A				
4(N)	1A		2B	3A							6A									12A			13A					16A			18A		19A			21A																		33A	34A	35A				41A
5(N)	1A		2B	3A							6A									12A			13A					16A				18B				21A																		33A	34A	35A			40A	41A
6(S)	1A		2B	3A							6A								11A			12C															22A		23B				25B					28A		29B					34A	35A				
7(S)	1A		2B	3A							6A								11A			12C															22A		23B				25B					28A	29A			31A			34A	35A				
8(S)	1A		2B	3A							6A								11A			12C															22A		23B			25A					27B				30A		32A	33A	34A	35A				
9(S)	1A		2B	3A							6A								11A			12C																	23B			25A				27A						31A			34A	35A				
10(S)	1A		2B	3A							6A								11A			12C															22A	23A							26B		27B				30A		32A	33A	34A	35A				
11(S)	1A		2B	3A							6A								11A			12C															22A	23A							26B	27A						31A			34A	35A				
12(S)	1A		2B	3A							6A								11A			12C															22A	23A						26A							30A		32A	33A	34A	35A				
13(S)	1A		2B	3A								6B		7B		8B		10A																						24A			25B					28A		29B						35A				
14(S)	1A		2B	3A								6B		7B		8B		10A																						24A			25B					28A	29A			31A			34A	35A				
15(S)	1A		2B	3A								6B		7B		8B		10A																						24A		25A					27B				30A		32A	33A	34A	35A				
16(S)	1A		2B	3A								6B		7B		8B		10A																						24A		25A				27A						31A			34A	35A				
17(S)	1A		2B	3A								6B		7B		8B		10A																							24B							28A		29B						35A				
18(S)	1A		2B	3A								6B		7B		8B		10A																							24B							28A	29A			31A			34A	35A				
19(S)	1A		2B	3A								6B		7B		8B	9A																				22A		23B				25B					28A		29B						35A				
20(S)	1A		2B	3A								6B		7B		8B	9A																				22A		23B				25B					28A	29A			31A			34A	35A				
21(S)	1A		2B	3A								6B		7B		8B	9A																				22A		23B			25A					27B				30A		32A	33A	34A	35A				
22(S)	1A		2B	3A								6B		7B		8B	9A																				22A		23B			25A				27A						31A			34A	35A				
23(S)	1A		2B	3A								6B		7B		8B	9A																				22A	23A							26B		27B				30A		32A	33A	34A	35A				
24(S)	1A		2B	3A								6B		7B		8B	9A																				22A	23A							26B	27A						31A			34A	35A				
25(S)	1A		2B	3A								6B		7B		8B	9A																				22A	23A						26A							30A		32A	33A	34A	35A				
26(S)	1A		2B	3A								6B	7A						11A																		22A		23B				25B					28A		29B						35A				
27(S)	1A		2B	3A								6B	7A						11A																		22A		23B				25B					28A	29A			31A			34A	35A				
28(S)	1A		2B	3A								6B	7A						11A																		22A		23B			25A					27B				30A		32A	33A	34A	35A				
29(S)	1A		2B	3A								6B	7A						11A																		22A		23B			25A				27A						31A			34A	35A				
30(S)	1A		2B	3A								6B	7A						11A																		22A	23A							26B		27B				30A		32A	33A	34A	35A				
31(S)	1A		2B	3A								6B	7A						11A																		22A	23A							26B	27A						31A			34A	35A				
32(S)	1A		2B	3A								6B	7A						11A																		22A	23A							26B	27A					30A		32A	33A	34A	35A				
33(S)	1A		2B		3B				5B									10A																						24A			25B					28A		29B						35A				
34(S)	1A		2B		3B				5B									10A																						24A			25B					28A	29A			31A			34A	35A				
35(S)	1A		2B		3B				5B									10A																						24A		25A					27B				30A		32A	33A	34A	35A				
36(S)	1A		2B		3B				5B									10A																						24A		25A				27A						31A			34A	35A				
37(S)	1A		2B		3B				5B									10A																							24B							28A		29B						35A				
38(S)	1A		2B		3B				5B									10A																							24B							28A	29A			31A			34A	35A				
39(S)	1A		2B		3B			5A									9A																				22A		23B				25B					28A		29B						35A				
40(S)	1A		2B		3B			5A									9A																				22A		23B				25B					28A	29A			31A			34A	35A				
41(S)	1A		2B		3B			5A									9A																				22A		23B			25A					27B				30A		32A	33A	34A	35A				
42(S)	1A		2B		3B			5A									9A																				22A		23B			25A				27A						31A			34A	35A				
43(S)	1A		2B		3B			5A									9A																				22A	23A							26B		27B				30A		32A	33A	34A	35A				
44(S)	1A		2B		3B			5A									9A																				22A	23A							26B	27A						31A			34A	35A				
45(S)	1A		2B		3B			5A									9A																				22A	23A						26A							30A		32A	33A	34A	35A				
46(S)	1A		2B		3B					5C																											22A		23B				25B					28A		29B						35A				
47(S)	1A		2B		3B					5C																											22A		23B				25B					28A	29A			31A			34A	35A				
48(S)	1A		2B		3B					5C																											22A		23B			25A									30A		32A	33A	34A	35A				
49(S)	1A		2B		3B					5C																											22A		23B			25A				27A						31A			34A	35A				
50(S)	1A		2B		3B					5C																											22A	23A							26B		27B				30A		32A	33A	34A	35A				
51(S)	1A		2B		3B					5C																											22A	23A							26B	27A						31A			34A	35A				
52(S)	1A		2B		3B					5C																											22A	23A						26A							30A		32A	33A	34A	35A				
53(N)	1A	2A					4B																13A						16B	17A					20B																		32A	33A	34A	35A				
54(N)	1A	2A					4B																13A						16B	17A				20A		21A																		33A	34A	35A				
55(N)	1A	2A					4B																13A					16A			18A		19A			21A																		33A	34A	35A			40A	
56(N)	1A	2A					4B																13A					16A				18B				21A																		33A	34A	35A			40A	41A
57(N)	1A	2A				4A																		14A												21A																		33A	34A	35A	39A		40A	41A
58(N)	1A	2A				4A																		14A									19A			21A																		33A	34A	35A		39B		41A
59(N)	1A	2A				4A																			14B	15A					18A		19A			21A																		33A	34A	35A				41A
60(N)	1A	2A				4A																			14B	15A						18B				21A																		33A	34A	35A			40A	41A
61(N)	1A	2A				4A																			14B		15B			17A					20B																		32A	33A	34A	35A				
62(N)	1A	2A				4A																			14B		15B			17A				20A		21A																		33A	34A	35A				

C-2 Preliminary alternative segment summary of impacts (500-foot corridor width)

Table C-2: Preliminary alternative segment summary of impacts (500-foot corridor width)

STIP #R-2553

Segment	Alternative Length (Ft)	Alternative Length (Mi)	Archeological Properties (# of sites)	Historic Properties (# of sites)	Parks (# of sites)	Buildings (Ea)	Cemeteries (Ea)	Churches (Ea)	School Parcels (Ea)	Easements (# of sites)	Hazard Mitigation Grant Properties (# of sites)	Mountain to Sea Trail (# of crossings)	Onsite Mitigation (# of sites)	Other State Owned Lands (# of sites)	Anadromous Spawning Areas (# of crossings)	Floodplains-A and AE (Ac)	Streams (# of crossings)	Wetlands (Ac)	Gas Line (# of crossings)	Major Transmission Line (# of crossings)	Water Tanks (# of sites)	Low Income Greater Than Study Area Threshold (blockgroup, Ac)	Percent Minority Greater Then Study Area Threshold (block, Ac)	Cost per mile ($5 million/mile assumed for Upgrade Existing; $8 million/mile assume for New Location)
	Length		Structures														Utilities					Census		
1A*	4958	0.9				1										2	2							$ 7,512,104.67
2A	13304	2.5				8										4	4				67	15		$ 20,157,399.66
2B*	11347	2.1				59										2	4							$ 17,192,826.97
3A*	8472	1.6				40										3	1					38		$ 12,836,223.66
3B	7462	1.4				1									0	4	17		1			1		$ 11,305,500.59
4A	56638	10.7				39									19	18	115	4				39		$ 85,815,079.77
4B	21781	4.1	8			30									25	6	44					20		$ 33,001,098.20
5A	15324	2.9		1		6			1						159	8	41					59		$ 23,218,704.55
5B	25903	4.9				13					1			1	170	11	88							$ 39,246,962.54
5C	38,432	7.3				79								1	182	12	110					67		$ 58,230,511.32
6A*	11669	2.2				9						1		1	17	6	3	1			55	96		$ 17,679,582.44
6B	3597	0.7														1	0					44		$ 5,449,486.81
7A	10175	1.9		2		7			1	3					31	4	18					25		$ 15,416,628.50
7B	6080	1.2	1	1					1	2					28	2	1					19		$ 9,211,852.80
8A	3587	0.7		1					1						46	1	29							$ 5,434,193.50
8B	17869	3.4		1		26			1			1			1	106	5	58							$ 27,074,607.34
9A	21499	4.1		1		17			1						1	78	3	117							$ 32,574,623.04
10A	28652	5.4				20										27	9	69		1					$ 43,412,648.21
11A	20211	3.8				27				1					1	116	4	48					0		$ 30,623,101.43
12A*	19095	3.6	3			6		1					1	1			7	46				73	73		$ 28,931,724.28
12B*	56592	10.7	4	3	1	190			1		14			1	1	352	11	49	5	1		165	137		$ 85,745,750.95
12C	7582	1.4				3				3					1	43	4	18	1			22	21		$ 11,487,638.48
13A*	28757	5.4	8			16		2	1				1	1		3	6	54	7				205		$ 43,570,496.16
14A	7955	1.5				6												16	1						$ 12,053,498.72
14B	7227	1.4				7										9	2	9	2						$ 10,950,735.54
15A	5542	1.0				1												1	3						$ 8,397,510.22
15B	3895	0.7				4												2	1						$ 5,900,827.68
16A	5946	1.1				5												5	3						$ 9,009,362.78
16B	3742	0.7				7												6	1						$ 5,669,019.89
17A	31649	6.0		1		17									1	91	11	77	2		1	212	75		$ 47,953,618.07
18A	5110	1.0														12	2	15							$ 7,742,633.32
18B	13434	2.5				15										11	3	55					97		$ 20,355,078.17
19A	18574	3.5				10			1						1	88	7	77				89	70		$ 28,142,885.84

Notes:

1.) For comparison purposes, the impacts were calculated based upon 500-foot corridors, even though all corridors include portions of upgrade existing US 70 and possibly portions of Felix Harvey Parkway which is currently under construction. More realistic impacts will be prepared for all Detailed Study Alternatives in future stages of the project.

2.) For table clarity, Screening Criteria which resulted with zero impacts are shown as blank.

3.) * Indicates Upgrade Existing Roadway Route Option Segment

4.) A copy of the Data Dictionary is attached, which summarizes how the priority and non-priority data layers were assimilated resulting with one data layer for each of the screening criteria.

5.) Resources that were included in the analysis, but not included in the screening matrix since none of the alternatives had impacts to these resources are: Section 6(f) properties, Natural Heritage Program Natural Areas, airports, federal land ownership, gamelands, hazardous material sites, housing authority properties, voluntary agriculture districts, swine lagoons, threatened and endangered species element of occurrences, wastewater treatment plants, and water treatment plants.

Table C-2: Preliminary alternative segment summary of impacts (500-foot corridor width)

STIP #R-2553

Segment	Alternative Length (Ft)	Alternative Length (Mi)	Archeological Properties (# of sites)	Historic Properties (# of sites)	Parks (# of sites)	Buildings (Ea)	Cemeteries (Ea)	Churches (Ea)	School Parcels (Ea)	Easements (# of sites)	Hazard Mitigation Grant Properties (# of sites)	Mountain to Sea Trail (# of crossings)	Onsite Mitigation (# of sites)	Other State Owned Lands (# of sites)	Anadromous Spawning Areas (# of crossings)	Floodplains-A and AE (Ac)	Streams (# of crossings)	Wetlands (Ac)	Gas Line (# of crossings)	Major Transmission Line (# of crossings)	Water Tanks (# of sites)	Low Income Greater Than Study Area Threshold (blockgroup, Ac)	Percent Minority Greater Then Study Area Threshold (block, Ac)	Cost per mile ($5 million/mile assumed for Upgrade Existing; $8 million/mile assume for New Location)
	Length				Structures														Utilities			Census		
20A	10475	2.0			7										41	3	46	1						$ 15,871,357.43
20B	16231	3.1			18	1									47	4	68	1						$ 24,591,755.65
21A	11698	2.2			18										26	2	52					2	28	$ 17,723,799.17
22A	4942	0.9			7											3	12						5	$ 7,487,876.61
23A	9917	1.9													31	3	48						68	$ 15,025,881.29
23B	12438	2.4			11						1				26	2	35						44	$ 18,845,942.95
24A	7536	1.4			2											1	22							$ 11,418,399.34
24B	23697	4.5			2											4	186					129		$ 35,905,301.85
25A	13852	2.6			11						1					1	70					88		$ 20,987,575.88
25B	15854	3.0			3											3	148					112		$ 24,020,780.17
26A	22842	4.3		1	20											7	31		1			83		$ 34,608,482.41
26B	11799	2.2			8						1					2	9					42		$ 17,876,600.53
27A	18,582	3.5		1	6											3	27					82		$ 28,154,175.78
27B	12077	2.3		1	6											6	16		1			86		$ 18,297,995.81
28A	2364	0.4			6						1						24					32		$ 3,582,060.64
29A	15126	2.9			9										3	3	73					28		$ 22,918,710.17
29B	33284	6.3			4						1					8	263					27		$ 50,429,720.55
30A*	7900	1.5		1	25											1	2							$ 11,969,182.99
31A	10948	2.1			5										23	5	35		1					$ 16,588,613.71
32A*	8097	1.5			11										14	2	5						27	$ 12,268,335.89
33A*	3423	0.6															3						1	$ 5,187,060.88
34A*	11672	2.2									1						32		1					$ 17,685,320.60
35A*	6135	1.2															19							$ 9,294,907.84
39A	14911	2.8			24											4	51	1					134	$ 22,592,493.98
39B	8081	1.5			3											4	14	1						$ 12,243,853.72
40A	10183	1.9			6									1	61	3	62					58	45	$ 15,429,016.70
41A	29960	5.7			39		1								55	6	58	1					52	$ 45,393,677.05

Notes:

1.) For comparison purposes, the impacts were calculated based upon 500-foot corridors, even though all corridors include portions of upgrade existing US 70 and possibly portions of Felix Harvey Parkway which is currently under construction. More realistic impacts will be prepared for all Detailed Study Alternatives in future stages of the project.

2.) For table clarity, Screening Criteria which resulted with zero impacts are shown as blank.

3.) * Indicates Upgrade Existing Roadway Route Option Segment

4.) A copy of the Data Dictionary is attached, which summarizes how the priority and non-priority data layers were assimilated resulting with one data layer for each of the screening criteria.

5.) Resources that were included in the analysis, but not included in the screening matrix since none of the alternatives had impacts to these resources are: Section 6(f) properties, Natural Heritage Program Natural Areas, airports, federal land ownership, gamelands, hazardous material sites, housing authority properties, voluntary agriculture districts, swine lagoons, threatened and endangered species element of occurrences, wastewater treatment plants, and water treatment plants.

C-3 Preliminary alternative summary of impacts (500-foot corridor width)

Table C-3: Preliminary alternative summary of impacts (500-foot corridor width)

STIP #R-2553

Corridor (N=Northern Bypass, S=Southern Bypass)	Length		Structures															Utilities						Census		
	Alternative Length (Ft)	Alternative Length (Mi)	Archeological Properties (# of sites)	Historic Properties (# of sites)	Parks (# of sites)	Buildings (Ea)	Cemeteries (Ea)	Churches (Ea)	School Parcels (Ea)	Easements (# of sites)	Hazard Mitigation Grant Properties (# of sites)	Mountain to Sea Trail (# of crossings)	Onsite Mitigation (# of sites)	Other State Owned Lands (# of sites)	Anadromous Spawning Areas (# of crossings)	Floodplains-A and AE (Ac)	Streams (# of crossings)	Wetlands (Ac)	Gas Line (# of crossings)	Major Transmission Line (# of crossings)	Water Tanks (# of sites)	Low Income Greater Than Study Area Threshold (blockgroup, Ac)	Percent Minority Greater Then Study Area Threshold (block, Ac)	Cost per mile ($5 million/mile assumed for Upgrade Existing Segments; $8 million/mile assume for New Location Segments)
1	130,265	24.7	4	3	1	332	0	0	1	0	14	1	1	1	2	383	27	118	6	2	0	215	290	$ 123,357,061
2(N)	165,246	31.3	11	1	0	181	1	3	1	0	0	1	3	2	2	168	43	315	12	1	1	335	506	$ 185,813,508
3(N)	163,091	30.9	11	1	0	179	0	3	1	0	0	1	3	2	2	174	42	340	12	1	1	337	507	$ 187,149,199
4(N)	176,816	33.5	11	0	0	202	0	4	2	0	0	1	3	2	2	196	43	363	12	1	0	213	549	$ 207,943,762
5(N)	176,749	33.5	11	0	0	213	0	4	1	0	0	1	3	2	2	169	40	388	12	1	0	183	617	$ 207,842,338
6(S)	139,255	26.4	0	0	0	169	0	0	0	3	0	3	1	0	2	198	36	569	1	0	0	233	192	$ 186,799,399
7(S)	143,719	27.2	0	0	0	179	0	0	0	3	0	3	1	0	2	221	36	445	1	2	0	234	192	$ 186,930,328
8(S)	144,775	27.4	0	1	0	207	0	0	0	3	0	3	1	0	2	212	35	267	1	2	0	241	219	$ 177,496,097
9(S)	142,808	27.0	0	0	0	178	0	0	0	3	0	3	1	0	2	221	34	304	1	2	0	241	192	$ 185,550,529
10(S)	140,200	26.6	0	1	0	193	0	0	0	3	0	2	1	0	2	216	37	219	1	2	0	196	243	$ 170,565,060
11(S)	138,234	26.2	0	0	0	164	0	0	0	3	0	2	1	0	2	226	36	256	1	2	0	196	216	$ 178,619,492
12(S)	139,167	26.4	0	1	0	199	0	0	0	3	0	1	1	0	2	216	36	225	1	2	0	154	243	$ 173,487,390
13(S)	146,148	27.7	1	1	0	158	0	0	1	2	0	3	0	0	1	156	36	603	0	1	0	162	93	$ 203,872,095
14(S)	150,611	28.5	1	1	0	168	0	0	1	2	0	3	0	0	1	179	36	480	0	3	0	163	93	$ 204,003,024
15(S)	151,667	28.7	1	2	0	196	0	0	1	2	0	3	0	0	1	170	35	302	0	3	0	169	120	$ 194,568,793
16(S)	149,700	28.4	1	1	0	167	0	0	1	2	0	3	0	0	1	179	34	339	0	3	0	169	93	$ 202,623,225
17(S)	146,455	27.7	1	1	0	155	0	0	1	2	0	3	0	0	1	156	36	619	0	1	0	178	93	$ 204,338,218
18(S)	150,919	28.6	1	1	0	165	0	0	1	2	0	3	0	0	1	179	36	496	0	3	0	180	93	$ 204,469,146
19(S)	134,556	25.5	1	1	0	147	0	0	1	2	0	3	0	0	1	169	30	643	0	0	0	162	138	$ 186,309,077
20(S)	139,019	26.3	1	1	0	157	0	0	1	2	0	3	0	0	1	192	30	520	0	2	0	163	138	$ 186,440,005
21(S)	140,075	26.5	1	2	0	185	0	0	1	2	0	3	0	0	1	183	29	341	0	2	0	169	165	$ 177,005,775
22(S)	138,109	26.2	1	1	0	156	0	0	1	2	0	3	0	0	1	192	28	378	0	2	0	169	138	$ 185,060,206
23(S)	135,501	25.7	1	2	0	171	0	0	1	2	0	2	0	0	1	188	31	293	0	2	0	124	189	$ 170,074,738
24(S)	133,534	25.3	1	1	0	142	0	0	1	2	0	2	0	0	1	197	30	330	0	2	0	124	162	$ 178,129,169
25(S)	134,467	25.5	1	2	0	177	0	0	1	2	0	1	0	0	1	188	30	299	0	2	0	83	189	$ 168,508,624
26(S)	133,776	25.3	0	2	0	164	0	0	1	3	0	3	0	0	1	169	32	566	0	0	0	162	144	$ 185,128,138
27(S)	138,240	26.2	0	2	0	174	0	0	1	3	0	3	0	0	1	192	32	442	0	2	0	163	144	$ 185,259,066
28(S)	139,296	26.4	0	3	0	202	0	0	1	3	0	3	0	0	1	183	31	264	0	2	0	169	171	$ 175,824,836
29(S)	137,329	26.0	0	2	0	173	0	0	1	3	0	3	0	0	1	192	30	301	0	2	0	169	144	$ 183,879,267
30(S)	134,722	25.5	0	3	0	188	0	0	1	3	0	2	0	0	1	188	33	216	0	2	0	124	195	$ 168,893,799
31(S)	132,755	25.1	0	2	0	159	0	0	1	3	0	2	0	0	1	197	32	253	0	2	0	124	168	$ 176,948,230

= Highest number of impacts

= Lowest number of impacts

Notes:

1.) For comparison purposes, impacts were calculated based upon 500-foot corridors, even though all corridors include portions of upgrade existing US 70 and possibly portions of Felix Harvey Parkway which is currently under construction. More realistic impacts will be prepared for all Detailed Study Alternatives in future stages of the project.

2.) A copy of the Data Dictionary can be found in Appendix B, which summarizes how the priority and non-priority data layers were assimilated resulting with one data layer for each of the screening criteria.

3.) Resources that were included in the analysis, but not included in the screening matrix since none of the preliminary alternatives had impacts to these resources are: Section 6(f) properties, Natural Heritage Program Natural Areas, airports, federal land ownership, gamelands, hazardous material sites, housing authority properties, voluntary agriculture districts, swine lagoons, threatened and endangered species element of occurrences, wastewater treatment plants, and water treatment plants.

Table C-3: Preliminary alternative summary of impacts (500-foot corridor width)

STIP #R-2553

Corridor (N=Northern Bypass, S=Southern Bypass)	Length		Structures														Utilities						Census		
	Alternative Length (Ft)	Alternative Length (Mi)	Archeological Properties (# of sites)	Historic Properties (# of sites)	Parks (# of sites)	Buildings (Ea)	Cemeteries (Ea)	Churches (Ea)	School Parcels (Ea)	Easements (# of sites)	Hazard Mitigation Grant Properties (# of sites)	Mountain to Sea Trail (# of crossings)	Onsite Mitigation (# of sites)	Other State Owned Lands (# of sites)	Anadromous Spawning Areas (# of crossings)	Floodplains-A and AE (Ac)	Streams (# of crossings)	Wetlands (Ac)	Gas Line (# of crossings)	Major Transmission Line (# of crossings)	Water Tanks (# of sites)	Low Income Greater Than Study Area Threshold (blockgroup, Ac)	Percent Minority Greater Then Study Area Threshold (block, Ac)	Cost per mile ($5 million/mile assumed for Upgrade Existing Segments; $8 million/mile assume for New Location Segments)
32(S)	133,688	25.3	0	3	0	194	0	0	1	3	0	1	0	0	1	188	32	222	0	2	0	83	195	$ 167,327,685
33(S)	143,495	27.2	0	0	0	106	0	0	0	0	0	3	0	0	1	197	40	648	0	2	0	162	1	$ 204,665,972
34(S)	147,958	28.0	0	0	0	116	0	0	0	0	0	3	0	0	1	220	40	525	0	4	0	163	1	$ 204,796,900
35(S)	149,014	28.2	0	1	0	144	0	0	0	0	0	3	0	0	1	211	39	346	0	4	0	169	28	$ 195,362,670
36(S)	147,047	27.8	0	0	0	115	0	0	0	0	0	3	0	0	1	220	38	383	0	4	0	169	1	$ 203,417,101
37(S)	143,802	27.2	0	0	0	103	0	0	0	0	0	3	0	0	1	197	40	664	0	2	0	178	1	$ 205,132,094
38(S)	148,266	28.1	0	0	0	113	0	0	0	0	0	3	0	0	1	220	40	541	0	4	0	180	1	$ 205,263,023
39(S)	135,607	25.7	0	1	0	114	0	0	1	0	0	3	0	0	1	259	35	670	0	1	0	162	104	$ 192,715,109
40(S)	140,070	26.5	0	1	0	124	0	0	1	0	0	3	0	0	1	282	35	547	0	3	0	163	104	$ 192,846,037
41(S)	141,126	26.7	0	2	0	152	0	0	1	0	0	3	0	0	1	273	34	368	0	3	0	169	131	$ 183,411,807
42(S)	139,160	26.4	0	1	0	123	0	0	1	0	0	3	0	0	1	282	33	405	0	3	0	169	104	$ 191,466,238
43(S)	136,552	25.9	0	2	0	138	0	0	1	0	0	2	0	0	1	278	36	320	0	3	0	124	155	$ 176,480,770
44(S)	134,585	25.5	0	1	0	109	0	0	1	0	0	2	0	0	1	287	35	357	0	3	0	124	128	$ 184,535,201
45(S)	135,518	25.7	0	2	0	144	0	0	1	0	0	1	0	0	1	278	35	326	0	3	0	83	155	$ 174,914,656
46(S)	137,215	26.0	0	0	0	170	0	0	0	0	0	3	0	0	1	208	36	626	0	1	0	162	45	$ 195,152,293
47(S)	141,679	26.8	0	0	0	180	0	0	0	0	0	3	0	0	1	231	36	503	0	3	0	163	45	$ 195,283,221
48(S)	130,206	24.7	0	1	0	208	0	0	0	0	0	3	0	0	1	222	34	303	0	3	0	169	72	$ 166,865,442
49(S)	140,768	26.7	0	0	0	179	0	0	0	0	0	3	0	0	1	231	34	361	0	3	0	169	45	$ 193,903,422
50(S)	138,161	26.2	0	1	0	194	0	0	0	0	0	2	0	0	1	226	37	277	0	3	0	124	96	$ 178,917,954
51(S)	136,194	25.8	0	0	0	165	0	0	0	0	0	2	0	0	1	236	36	313	0	3	0	124	69	$ 186,972,385
52(S)	124,598	23.6	0	1	0	200	0	0	0	0	0	2	0	0	1	226	35	261	0	3	0	83	96	$ 158,368,291
53(N)	149,748	28.4	16	1	0	105	1	2	1	0	0	1	1	1	1	176	35	309	11	1	1	279	343	$ 191,071,783
54(N)	147,593	28.0	16	1	0	103	0	2	1	0	0	1	1	1	1	182	34	333	11	1	1	280	344	$ 192,407,474
55(N)	161,318	30.6	16	0	0	126	0	3	2	0	0	1	1	1	1	204	35	357	11	1	0	157	386	$ 213,202,037
56(N)	161,251	30.5	16	0	0	137	0	3	1	0	0	1	1	1	1	177	32	382	11	1	0	126	454	$ 213,100,612
57(N)	170,837	32.4	0	0	0	140	0	1	0	0	0	1	0	0	1	157	39	404	7	1	0	126	304	$ 243,964,586
58(N)	172,398	32.7	0	0	0	123	0	1	1	0	0	1	0	0	1	183	43	383	7	1	0	157	199	$ 246,329,814
59(N)	174,242	33.0	0	0	0	122	0	1	1	0	0	1	0	0	1	204	43	380	10	1	0	157	199	$ 249,123,340
60(N)	174,175	33.0	0	0	0	133	0	1	0	0	0	1	0	0	1	177	40	405	10	1	0	126	267	$ 249,021,916
61(N)	163,229	30.9	0	1	0	102	1	0	0	0	0	1	0	0	1	176	43	332	10	1	1	279	156	$ 227,836,748
62(N)	161,074	30.5	0	1	0	100	0	0	0	0	0	1	0	0	1	182	42	356	10	1	1	280	157	$ 229,172,439
Lowest Value	124,598	24	1	1	1	100	1	1	1	2	14	1	1	1	1	156	27	118	1	1	1	83	1	$ 123,357,060.55
Highest Value	176,816	33	16	3	1	332	1	4	2	3	14	3	3	2	2	383	43	670	12	4	1	337	617	$ 249,123,340.46
Average	145,609	28	6	1		159			1	3		2			1	207	36	389	7	2		174	178	$ 192,353,525.96
Median	140,947	27	1	1	1	164	1	3	1	3	14	3	1	1	1	197	35	357	10	2	1	166	155	$ 187,060,792.00

= Highest number of impacts

= Lowest number of impacts

Notes:

1.) For comparison purposes, impacts were calculated based upon 500-foot corridors, even though all corridors include portions of upgrade existing US 70 and possibly portions of Felix Harvey Parkway which is currently under construction. More realistic impacts will be prepared for all Detailed Study Alternatives in future stages of the project.

2.) A copy of the Data Dictionary can be found in Appendix B, which summarizes how the priority and non-priority data layers were assimilated resulting with one data layer for each of the screening criteria.

3.) Resources that were included in the analysis, but not included in the screening matrix since none of the preliminary alternatives had impacts to these resources are: Section 6(f) properties, Natural Heritage Program Natural Areas, airports, federal land ownership, gamelands, hazardous material sites, housing authority properties, voluntary agriculture districts, swine lagoons, threatened and endangered species element of occurrences, wastewater treatment plants, and water treatment plants.

C-4 Major hydraulic crossings and proposed structures

Table C-4: Major hydraulic crossings and proposed structures

Alternatives	Crossing No.	Structure Type	Structure Size [a]					Surface Water
1UE, 1SB, 11, 12, 31, 32, 35, 36, 51, 52, 63, 65	2	Culvert	Single	6’	x	6’	Box	UT to Whitelace Creek
1UE, 1SB, 11, 12	6	Culvert [b]	Double	9’	x	6’	Box	UT to Falling Creek
1UE, 1SB, 11, 12, 31, 32, 63	12	Culvert [b]	Triple	12’	x	10’	Box	UT to Falling Creek
1UE, 1SB, 12, 32, 35, 52, 63	48	Culvert [b]	Triple	7’	x	7’	Box	Tracey Swamp
1UE	104	Culvert [b]	Single	5’	x	6’	Box	UT to Falling Creek
1UE	105	Culvert [b]	Single	12’	x	8’	Box	UT to Neuse River
1UE, 1SB, 12, 32, 35, 52, 63	112	Culvert [b]	Double	6’	x	6’	Box	Mill Branch
35, 36	116	Culvert	Double	6’	x	6’	Box	Whitelace Creek
35, 36	118	Culvert	Single	6’	x	6’	Box	UT to Neuse River
35, 36	132	Culvert	Double	6’	x	6’	Box	Strawberry Branch
11, 31, 36, 51, 65	136	Culvert	Double	5’	x	6’	Box	Tracey Swamp
11, 12, 31, 32, 51, 52, 63, 65	150	Culvert	Single	8’	x	6’	Box	Mott Swamp
12, 32, 52, 63	154	Culvert	Double	6’	x	6’	Box	Strawberry Branch
12, 32, 35, 52, 63	157	Culvert	Single	8’	x	6’	Box	UT to Mill Branch
51, 52	172	Culvert	Double	8’	x	6’	Box	Whitelace Creek
51, 52	176	Culvert	Single	8’	x	6’	Box	Whitley's Creek
51, 52	177	Culvert	Single	6’	x	6’	Box	UT to Whitley's Creek
11, 31, 51, 65	180	Culvert	Double	6’	x	6’	Box	Strawberry Branch

Alternatives	Crossing No.	Structure Type	Structure Size [a]					Surface Water
35, 36, 51, 52	201	Culvert	Double	5’	x	6’	Box	UT to Whitelace Creek
51, 52	202	Culvert	Double	6’	x	6’	Box	Whitley's Creek
1SB	303	Culvert	Single	8’	X	6’	Box	UT to Falling Creek
1SB	304	Culvert	Single	8’	x	6’	Box	UT to Falling Creek
1SB	307	Culvert	Double	5’	x	6’	Box	UT to Neuse River
1SB	308	Culvert	Single	8’	x	6’	Box	UT to Neuse River
1SB	311	Culvert	Single	7’	x	6’	Box	UT to Neuse River
1SB	312	Culvert	Single	7’	x	6’	Box	UT to Neuse River
1SB	313	Culvert	Single	7’	x	6’	Box	UT to Neuse River
1UE	326	Culvert [c]	Double	6’	x	7’	Box	Rivermont Tributary
11, 31, 36, 51, 65	339	Culvert	Single	8’	x	6’	Box	Gum Swamp
1UE, 1SB, 11, 12	406	Culvert	Single	6’	x	6’	Box	UT to Whitelace Creek
1UE, 1SB, 11, 12	407	Culvert	Single	6’	x	6’	Box	UT to Whitelace Creek
1UE, 1SB, 11, 12	408	Culvert	Single	6’	x	6’	Box	UT to Whitelace Creek
1UE, 1SB, 12, 32, 35, 52, 63	415	Culvert	Double	5’	x	6’	Box	Gum Swamp
All Alts.	416	Culvert	Double	5’	x	6’	Box	Gum Swamp
11, 31, 36, 51, 65	417	Culvert	Double	5’	x	6’	Box	Gum Swamp
1UE, 1SB, 11, 12	4	Bridge [d]	121' (N. Service Road) 121’ (WBL) [4] 121’ (EBL) [4] 121’ (S. Service Road)					Falling Creek
11, 12, 31, 32, 63, 65	16	Bridge [d]	470’ (SBL) [4] 427’ (NBL) [4]					UT to Falling Creek

Alternatives	Crossing No.	Structure Type	Structure Size [a]	Surface Water
1UE	106A	Bridge [d]	405' (WBL) [d] 405’ (EBL) [d]	Neuse River
1UE	106B	Bridge [d]	315' (WBL) [d] 316’ (EBL) [d]	UT to Neuse River
1UE, 1SB	110	Bridge d	158' (WBL) [d] 167’ (EBL) [d] 167’ (S. Service Road)	Southwest Creek
35, 36	119	Bridge	3,800'	Neuse River
35, 36	121	Bridge	945'	Southwest Creek
63, 65	139	Bridge	85'	Whitelace Creek
63, 65	140	Bridge	5,480' (N. Ramp) 5,590' (WBL) 5,760' (EBL) 2,140' (S. Ramp)	Neuse River & UT to Neuse River
11, 12, 31, 32, 51, 52, 63, 65	149	Bridge	1,025'	Southwest Creek
11, 12, 31, 32	163	Bridge	3,691'	Neuse River
11, 12, 31, 32, 63, 65	167	Bridge	390'	Falling Creek
51, 52	175	Bridge	3,480’	Neuse River & UT to Neuse
1SB	305	Bridge	7,115’	Neuse River

Source: NCDOT 2017f

UT – Unnamed tributary

[a] All dimensions in feet. Culvert size shown as width x height. Bridge size refers to overall length of structure.

[b] Major hydraulic crossing with existing culvert structure. Existing structure meets or exceeds minimum hydraulic opening size determined based on contributing drainage area. Existing culverts are assumed to be retained and lengthened, if necessary.

[c] Crossing located within a Federal Emergency Management Agency (FEMA) regulated floodway; therefore, the box culvert size estimated based on Q100 (rather than Q50), assuming a Q/B of 55 cfs/ft and 7' culvert height. Single, double, and triple barrel considered.

[d] Major hydraulic crossing with existing bridge structure(s). Minimum hydraulic size recommendations for proposed ramp or service road structures adjacent to existing bridge structures are based on existing bridge lengths. Existing bridge structures assumed to be maintained and widened, if necessary. Plan and profile sheets not produced for bridge crossings 16, 24, 204, 205, 206, and 209. Note that crossings 16 and 24 are minor crossings based on contributing drainage area; however, crossing contains an existing bridge structure.

APPENDIX D: RELOCATION REPORT AND COST ESTIMATE

Contents
D-1 Relocation Report
D-2 Cost Estimate

D-1 Relocation Report

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate 1 of 12 Alternate
T.I.P. No.:	R-2553			
DESCRIPTION OF PROJECT:	Alternate 1 – Widening and Upgrade of existing US-70			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	90	38	128	27
Businesses	109	79	188	31
Farms	0	0	0	0
Non-Profit	6	0	6	6

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	18	37	46	27

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	27	150-250	0	20-40M	41	150-250	5
40-70M	31	250-400	22	40-70M	74	250-400	29
70-100M	28	400-600	14	70-100M	73	400-600	20
100 UP	4	600 UP	2	100 UP	174	600 UP	17
TOTAL	90		38		362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? **24 - 36**

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E
Revised 7/7/14

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate	1SB	of	12	Alternate
T.I.P. NO.:	R-2553							
DESCRIPTION OF PROJECT:	Alternate 1SB – Widening and Upgrade of existing US-70 Southern Bypass							

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	133	32	165	27
Businesses	60	55	115	19
Farms	0	0	0	0
Non-Profit	4	0	4	4

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	23	46	65	31

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	34	150-250	0
40-70M	43	250-400	17
70-100M	45	400-600	13
100 UP	11	600 UP	2
TOTAL	133		32

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online Realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E
Revised 7/7/14

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate	11	of	12	Alternate
T.I.P. NO.:	R-2553								
DESCRIPTION OF PROJECT:	Alternate 11 – Improvements of existing US-70								

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	90	9	99	24
Businesses	19	11	30	0
Farms	0	0	0	0
Non-Profit	4	0	4	4

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	9	46	23	21

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	32	150-250	0
40-70M	29	250-400	7
70-100M	18	400-600	2
100 UP	11	600 UP	0
TOTAL	90		9

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E
Revised 7/7/14

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate	12	of	12	Alternate
T.I.P. NO.:	R-2553							
DESCRIPTION OF PROJECT:	Alternate 12 – Improvements of existing US-70							

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	92	11	103	27
Businesses	22	13	35	1
Farms	0	0	0	0
Non-Profit	4	0	4	4

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	12	43	25	23

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	32	150-250	0
40-70M	29	250-400	6
70-100M	18	400-600	5
100 UP	13	600 UP	0
TOTAL	92		11

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

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Revised 7/7/14

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate	31	of	12	Alternate
T.I.P. NO.:	R-2553							
DESCRIPTION OF PROJECT:	Alternate 31 – Improvements of existing US-70							

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	70	10	80	26
Businesses	16	11	27	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	13	19	26	22

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	17	150-250	0
40-70M	24	250-400	7
70-100M	22	400-600	3
100 UP	7	600 UP	0
TOTAL	70		10

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

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02EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/CravenJones	Alternate 32 of 12 Alternate
T.I.P. No.:	R-2553			
DESCRIPTION OF PROJECT:	Alternate 32 – Improvements of existing US-70			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	82	13	95	27
Businesses	22	11	33	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	15	29	32	19

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	18	150-250	0
40-70M	30	250-400	10
70-100M	27	400-600	3
100 UP	7	600 UP	0
TOTAL	82		13

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.
	x	1. Will special relocation services be necessary?
x		2. Will schools or churches be affected by displacement?
x		3. Will business services still be available after project?
x		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	x	7. Will additional housing programs be needed?
x		8. Should Last Resort Housing be considered?
	x	9. Are there large, disabled, elderly, etc. families?
	x	10. Will public housing be needed for project?
x		11. Is public housing available?
x		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13. Will there be a problem of housing within financial means?
x		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

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Right of Way Agent	Date	Relocation Coordinator	Date

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate	35	of 12	Alternate
T.I.P. NO.:	R-2553						
DESCRIPTION OF PROJECT:	Alternate 35 – Improvements of existing US-70						

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	122	13	135	31
Businesses	19	9	28	2
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	12	52	50	21

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	19	150-250	0
40-70M	47	250-400	9
70-100M	42	400-600	4
100 UP	14	600 UP	0
TOTAL	122		13

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate 36 of 12 Alternate	
T.I.P. NO.:	R-2553				
DESCRIPTION OF PROJECT:	Alternate 36 – Improvements of existing US-70				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	109	9	118	37
Businesses	17	8	25	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	12	45	42	19

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	16	150-250	0	20-40M	41	150-250	5
40-70M	45	250-400	6	40-70M	74	250-400	29
70-100M	37	400-600	3	70-100M	73	400-600	20
100 UP	11	600 UP	0	100 UP	174	600 UP	17
TOTAL	109		9		362		71

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	x	1. Will special relocation services be necessary?
x		2. Will schools or churches be affected by displacement?
x		3. Will business services still be available after project?
x		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	x	7. Will additional housing programs be needed?
x		8. Should Last Resort Housing be considered?
	x	9. Are there large, disabled, elderly, etc. families?
	x	10. Will public housing be needed for project?
x		11. Is public housing available?
x		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13. Will there be a problem of housing within financial means?
x		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

	2-9-18		05/23/2018
Right of Way Agent	Date	Relocation Coordinator	Date

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate 51 of 12 Alternate	
T.I.P. NO.:	R-2553				
DESCRIPTION OF PROJECT:	Alternate 51 – Improvements of existing US-70				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	99	9	108	32
Businesses	17	7	24	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	12	36	43	17

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	13	150-250	0
40-70M	34	250-400	6
70-100M	43	400-600	3
100 UP	9	600 UP	0
TOTAL	99		9

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
TOTAL	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? **24 - 36**

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

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Right of Way Agent	Date	Relocation Coordinator	Date

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate 52 of 12 Alternate	
T.I.P. NO.:	R-2553				
DESCRIPTION OF PROJECT:	Alternate 52 – Improvements of existing US-70				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	111	11	122	35
Businesses	21	8	29	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	14	40	46	22

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	15	150-250	0
40-70M	42	250-400	7
70-100M	43	400-600	4
100 UP	11	600 UP	0
TOTAL	111		11

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
	362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.	
	x	1.	Will special relocation services be necessary?
x		2.	Will schools or churches be affected by displacement?
x		3.	Will business services still be available after project?
x		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	x	7.	Will additional housing programs be needed?
x		8.	Should Last Resort Housing be considered?
	x	9.	Are there large, disabled, elderly, etc. families?
	x	10.	Will public housing be needed for project?
x		11.	Is public housing available?
x		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13.	Will there be a problem of housing within financial means?
x		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

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Right of Way Agent	Date	Relocation Coordinator	Date

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate	63	of	12	Alternate
T.I.P. No.:	R-2553							
DESCRIPTION OF PROJECT:	Alternate 63 – Improvements of existing US-70							

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	91	9	100	28
Businesses	24	9	33	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	12	36	34	18

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.
	x	1. Will special relocation services be necessary?
x		2. Will schools or churches be affected by displacement?
x		3. Will business services still be available after project?
x		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	x	7. Will additional housing programs be needed?
x		8. Should Last Resort Housing be considered?
	x	9. Are there large, disabled, elderly, etc. families?
	x	10. Will public housing be needed for project?
x		11. Is public housing available?
x		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13. Will there be a problem of housing within financial means?
x		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? **24 - 36**

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	12	150-250	0
40-70M	35	250-400	6
70-100M	35	400-600	3
100 UP	9	600 UP	0
TOTAL	91		9

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	41	150-250	5
40-70M	74	250-400	29
70-100M	73	400-600	20
100 UP	174	600 UP	17
	362		71

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
4. See attached list.
6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

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Right of Way Agent	Date	Relocation Coordinator	Date

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EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34460.1.2	COUNTY	Lenoir/Craven/Jones	Alternate 65 of 12 Alternate
T.I.P. No.:	R-2553			
DESCRIPTION OF PROJECT:	Alternate 65 – Improvements of existing US-70			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	77	8	85	23
Businesses	21	7	28	1
Farms	0	0	0	0
Non-Profit	3	0	3	3

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	12	29	27	17

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	11	150-250	0	20-40M	41	150-250	5
40-70M	27	250-400	5	40-70M	74	250-400	29
70-100M	32	400-600	3	70-100M	73	400-600	20
100 UP	7	600 UP	0	100 UP	174	600 UP	17
TOTAL	77		8		362		71

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.
	x	1. Will special relocation services be necessary?
x		2. Will schools or churches be affected by displacement?
x		3. Will business services still be available after project?
x		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	x	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	x	7. Will additional housing programs be needed?
x		8. Should Last Resort Housing be considered?
	x	9. Are there large, disabled, elderly, etc. families?
	x	10. Will public housing be needed for project?
x		11. Is public housing available?
x		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	x	13. Will there be a problem of housing within financial means?
x		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 24 - 36

REMARKS (Respond by Number)

2. See attached list.
3. Businesses will still be available.
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6. Realtors, MLS, Online realtor websites, classifieds, Realtor Publications.
8. As required by law.
11. Public housing is available in Lenoir, Craven and Jones County.
12. There is plenty of DSS housing in the area as stated by realtors.
14. See #6 above. Various business sites and commercial lots are available around the project area.

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List of Churches and Non-Profits Affected by The Different Alternates of The Project

- Church of God-La Grange
- US Post Office
- Kinston/Lenoir Visitor Center
- Woodman of the World Lodge 46
- Wyse Fork Volunteer Fire
- Greater Vision Baptist Church
- Identity Ministries Church
- Church Destiny Ministries
- Trinity United Methodist
- Chosen Vessel Ministries
- Victorious Living Church
- Kennedy Home Church
- Grace Baptist

Business Relocations Alternate 1

- **(SOME BUILDINGS MAY BE VACANT AND/OR FOR LEASE)**
- 20/20 Vision Center
- Advance Auto Parts
- Ag Carolina Farm Credit
- Alien Are Tattoo
- American Tool Rentals
- Apperson's Auto Sales
- Auto Body Company
- Auto Pro of Kinston
- B J's Grill
- Barney's Pizzeria
- Barnhill Contracting
- Bert's Surf Shop
- Blizzard's Mini Warehouse
- Bo Jangles
- Car Wash
- Cauley Construction Company, LLC
- CDS Networks
- Childcare Center
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church Destiny Ministries
- Church of God-LaGrange
- Collison Repair
- Country Hearth Inn
- Craftmaster Collision
- CRI
- D & S Towing & Recovery
- Davis Wholesale Tire
- Deacon Jones Supercenter
- Dillard Wallace Construction
- Don's Barber Shop
- Eagle Homes Inc.
- East Coast Customs

- Eastern Restaurant & Equip.
- El Azteca Mexican Restaurant
- Enterprise
- Everett's Industrial
- Falling Creek Guns
- Falling Creek Service Center
- Family Dollar
- Frank's Place
- Froenius Kidney Care
- Frozen Storage
- Fuel Warehouse
- Furniture Gallery
- Galaxy Sports
- Good Times Country Music
- Greater Vision Baptist Church
- Hampton Inn
- Hardee's
- Harrison Motor Co
- Hess Trade Wilco
- Hobart Food Equipment
- Horizon RV
- Identity Ministries Church
- J & R Equipment
- J &J Trucking
- Jones Grill
- Kangaroo
- Ken's Grill
- KF Mart
- Kings BBQ & Chicken Restaurant
- Kinston Tire & Auto Service
- Kinstonian Family Buffet
- Kinston-Lenoir Co. Visitor Ctr.
- Knotts Warehouse
- La Azteca Torielleri
- Lidi

- LKQ
- Lloyd Moody
- Magnolia Cottage
- Mallard Gas
- Mallard Gas
- Mann's Automotive
- Maready Tire Co.
- Mary Lou's Grill
- McDonalds
- Mickey's Beach Bingo
- Mobile-Mini
- Monk's Furniture
- Monks Furniture Warehouse
- Mooring Group Inc.
- Mr. Tire Service Center
- Murphy Express
- NC Billiard's
- Neuse Sport Shop, Inc
- NYC Platters and Fuel
- Peace Boutique
- Pearson's
- Pee Wee's Self-Serve
- Pelicans Snowball
- Plumbing
- Pro 356 Electric
- Pure BP
- Quality Inn
- Red Apple Needle Craft
- Red Collar
- River Inn
- Roger's Audio & Body
- Rotary Dog Park
- Second Chance Thrift
- Shell Rapid Lube
- Simply Hair Salon

- Southeast Heating/AC
- Southland Flooring
- State Liquor Store
- Stor-All Mini Storage
- Subway
- Suddenlink
- Sunoco
- Super 8 Motel
- Suttons
- Sweet's Custom Shop
- Taco Bell
- Tarheel Preowned Autos
- Tattoo Aztec
- Texas Steakhouse
- The Alternative Shop
- The Barn Steakhouse
- The Dugout
- The Salon
- Thrift and Gift
- Tilghman's Garage
- Trinity United Methodist Ch.
- Two Amigo's Heating & Air
- Universal Leaf
- US Post Office
- Verizon Wireless
- Victorious Living Church
- Vintage Farm
- Vision Painting
- Wall to Wall Consignments
- Wallpaper Outlet
- Warehouse Storage
- Westview Monument Co.
- Woodmen of the World Lodge
- Wyse Fork Volunteer Fire

Business Relocations Alternate 1(Shallow Bypass)

- ABC Liquor Store
- Ag Carolina Farm Credit
- Aldridge Contractors
- Apperson's Auto Sales
- Auto Repair
- B J's Grill
- Baker Fence &Vinyl Siding
- Baron & Beef
- Blizzard's Mini Warehouse
- Bo Jangles
- Byrd's Restaurant
- Cannon Marketing Inc.
- Central Warehouse
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- CRI
- Crocker Solar Farm
- D & S Towing & Recovery
- Dillard Wallace Construction
- Eagle Homes Inc.
- Falling Creek Guns
- Falling Creek Service Center
- Forbes Mobile Home Supply
- Frank's Place
- Frozen Storage
- Good Times Country Music
- Goodman Concrete Co.

- Grace Baptist
- Grady Insurance
- H & H Warehouse
- Harper & Phillips
- Harrison Motor Co.
- Hasty Mart BP
- Herring Tanning & Auto Detail
- Hess Trade Wilco
- Hollands Super Circle
- Horizon RV
- J & R Equipment
- Ken's Grill
- KF Mart
- Lenoir Co. Schools Garage
- LKO Salvage
- Magnolia Cottage
- Mallard Gas
- Mann's Automotive
- Maready Tire Co.
- Mary Lou's Grill
- Men's Den
- Mini-Storage Facility
- Mobile-Mini
- Monk's Furniture
- Mooring Buildings
- Natures Touch Vintage Farm
- Pee Wee's Tavern
- Plumbing
- Sandpiper Seafood
- Serenity Family Groups
- SSY Statensburg LLC
- Sunspring American
- Sutton's
- Textbook Brokers

- Thrift and Gift
- Tilghman's Garage
- Trinity United Methodist Ch.
- Two Amigo's Heating and Air
- Victorious Living Church
- Vintage Farm
- Woodman of the World
- Wyse Fork Volunteer Fire

Business Relocations Alternate 11

- Ag Carolina Farm Credit
- Apperson's Auto Sales
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- Citgo-Lighthouse Food Mart
- Classic Care
- CRI
- Eagle Homes Inc.
- Falling Creek Guns
- Falling Creek Service Center
- Frank's Place
- Good Times Country Music
- Harrison Motor Co.
- Hasty Mart BP
- Horizon RV
- J&J Trucking
- Ken's Grill
- Kingdom Palace Grooming
- LKO Salvage
- Mallard Gas

- Maready Tire Co.
- Men's Den
- Mobile-Mini
- Monk's Furniture
- Mooring Buildings
- Sandpiper Seafood
- Southeastern Freight Lines
- Sutton's
- Tilghman's Garage
- Trinity United Methodist Ch.
- Venue
- Victorious Living Church
- Vintage Farm

Business Relocations Alternate 12

- ABC Store
- Ag Carolina Farm Credit
- Apperson's Auto Sales
- Auto Discount
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- Citgo-Lighthouse Food Mart
- Classic Care
- CRI
- Dillard Wallace Construction
- Eagle Homes Inc.
- Falling Creek Guns
- Falling Creek Service Center
- Frank's Place
- Good Times Country Music

- Harrison Motor Co.
- Hasty Mart BP
- Horizon RV
- J & R Equipment
- J&J Trucking
- Ken's Grill
- Kingdom Palace Grooming
- Magnolia Cottage
- Mallard Gas
- Maready Tire Co.
- Men's Den
- Mobile-Mini
- Monk's Furniture
- Mooring Buildings
- Sandpiper Seafood
- Southeastern Freight Lines
- Sutton's
- Tilgman's Garage
- Trinity United Methodist Ch.
- Two Amigo's Heating & Air
- Victorious Living Church
- Vintage Farm
- Wyse Fork Volunteer Fire

Business Relocations Alternate 31

- Ag Carolina Farm Credit
- Apperson's Auto Sales
- Auto Discount
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- Citgo-Lighthouse Food Mart
- Classic Care
- CRI
- Eagle Homes Inc.
- Frank's Place
- Good Times Country Music
- Hasty Mart BP
- Horizon RV
- J&J Trucking
- Ken's Grill
- Kingdom Palace Grooming
- LKO Salvage
- Men's Den
- Monks Furniture
- Mooring Buildings
- Plumbing
- Sandpiper Seafood
- Southwood Volunteer Fire Department
- Sutton's
- Tilgman's Garage
- Victorious Living Church
- Vintage Farm

Business Relocations Alternate 32

- ABC Liquor Store
- Ag Carolina Farm Credit
- Apperson's Auto Sales
- Auto Discount
- B J's Gril
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- Citgo-Lighthouse Food Mart
- Classic Care
- CRI
- Dillard Wallace Construction
- Eagle Homes Inc.
- Frank's Place
- Good Times Country Music
- Hasty Mart BP
- Horizon RV
- J & R Equipment
- J&J Trucking
- Ken's Grill
- Kennedy Home Church
- Kingdom Palace Grooming
- Magnolia Cottage
- Mallard Gas
- Men's Den
- Monk's Furniture
- Mooring Buildings
- Plumbing
- Sandpiper Seafood
- Southeastern Freight Lines
- Sutton's
- Tiglman's Garage
- Two Amigo's Heating & Air
- Victorious Living Church
- Vintage Farm
- Wyse Fork Volunteer Fire

Business Relocations Alternate 35

- ABC Liquor Store
- Ag Carolina Farm Credit
- Andrew's Logging
- Apperson's Auto Sales
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- CRI
- Dillard Wallace Construction
- Eagle Homes Inc.
- Frank's Place
- Good Times Country Music
- Hasty Mart BP
- Horizon RV
- J & R Equipment
- J&J Trucking
- Ken's Grill
- Magnolia Cottage
- Mallard Gas
- Men's Den
- Monk's Furniture
- Mooring Buildings
- Plumbing
- Sandpiper Seafood
- Southwood Volunteer Fire Department
- Sutton's
- Tilgman's Garage
- Two Amigo's Heating & Air
- Victorious Living Church

- Vintage Farm
- Wyse Fork Volunteer Fire

Business Relocations Alternate 36

- Ag Carolina Farm Credit
- Andrew's Logging
- Apperson's Auto Sales
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- CRI
- Eagle Homes Inc.
- Frank's Place
- Good Times Country Music
- Hasty Mart BP
- Horizon RV
- J&J Trucking
- Ken's Grill
- Men's Den
- Monk's Furniture
- Mooring Buildings
- Plumbing
- Sandpiper Seafood
- Southwood Volunteer Fire Dept
- Sutton's
- Tilghman's Garage
- Victorious Living Church
- Vintage Farm

Business Relocations Alternate 51

- AG Credit Union
- Apperson's
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- CRI
- Eagle Homes Inc.
- Frank's Place
- Good Times Country Music
- Hasty Mart BP
- Horizon RV
- J&J Trucking
- Ken's Grill
- Men's Den
- Monk's Furniture
- Mooring Group Inc
- Plumbing
- Sandpiper Seafood
- Sutton's
- Tilgman's Garage
- Victorious Living Church
- Vintage Farm

Business Relocations Alternate 52

- ABC Liquor Store
- Ag Carolina Farm Credit
- Apperson's Auto Sales
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- CRI
- Dillard Walbee Construction
- Eagle Homes Inc.
- Flea Market
- Frank's Place
- Fruit Stand
- Good Times Country Music
- Hasty Mart BP
- Horizon RV
- J & R Equipment
- J&J Trucking
- Ken's Grill
- Magnolia Cottage
- Mallard Gas
- Men's Den
- Monk's Furniture
- Mooring Buildings
- Plumbing
- Sandpiper Seafood
- Sutton's
- Tilgman's Garage
- Two Amigo's Heating & Air
- Victorious Living Church
- Wyse Fork Volunteer Fire

Business Relocations Alternate 63

- ABC Store
- Ag Carolina Farm Credit
- Apperson's Auto Sales
- Auto Discount
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- Citgo-Lighthouse Food Mart
- Classic Care
- CRI
- Dillard Wallace Construction
- Eagle Homes Inc.
- Frank's Place
- Hasty Mart BP
- Horizon RV
- J&J Trucking
- J&R Equipment
- Ken's Grill
- Kingdom Palace Grooming
- Magnolia's Cottage
- Mallard Gas
- Men's Den
- Monk's Furniture
- Mooring Group
- Good Times Country Music
- Plumbing
- Sandpiper Seafood
- Southeastern Freight Lines
- Tiglman's Garage
- Two Amigo's Heating and Air
- Sutton's
- Victorious Living Church
- Vintage Farm
- Wyse Fork Fire

Business Relocations Alternate 65

- Ag Carolina Farm Credit
- Apperson's Auto Sales
- Auto Discount
- B J's Grill
- Bo Jangles
- Chosen Vessel Ministries
- Chubby Nubbies Antiques
- Church of God-LaGrange
- Citgo-Lighthouse Food Mart
- Classic Care
- CRI
- Eagle Homes Inc.
- Frank's Place
- Hasty Mart BP
- Horizon RV
- J&J Trucking
- Ken's Grill
- Kingdom Palace Grooming
- Men's Den
- Monk's Furniture
- Mooring Group
- Good Times Country Music
- Plumbing
- Sandpiper Seafood
- Southeastern Freight Lines
- Sutton's
- Tiglman's Garage
- Victorious Living Church
- Vintage Farm

D-2 Cost Estimate

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST ESTIMATE REQUEST ☒ **RELOCATION EIS REPORT** ☒

NEW REQUEST: ☐ **UPDATE REQUEST:** ☐ Update to ____ Estimate **REVISION REQUEST:** ☒ Revision to ____ Estimate Revision No.: ____

DATE RECEIVED: 07/26/17 **DATE ASSIGNED**: 07/26/17 **# of Alternates Requested**: 12

DATE DUE: 10/02/17-Revised 02/09/18-Revised 5/1/18-Revised 5/11/18

TIP No.: R-2553	DESCRIPTION: Kinston Bypass

WBS ELEMENT: 34460.1.2 **COUNTY**: Lenoir **DIV**: 2 **APPRAISAL OFFICE**: 1

REQUESTOR: Maria Rogerson **DEPT**: Div 2

TYPE OF PLANS: HEARING MAPS☐ | LOCATION MAP☐ | AERIAL☒ | VICINITY☐ | PRELIMINARY☒ | CONCEPTUAL☐

** Based on past project historical data, the land and damage figures have been adjusted to include condemnation and administrative increases that occur during settlement of all parcels.**

APPRAISER: Joe Martin - O.R. Colan **COMPLETED**: ____ **# of Alternates Completed**: ____

	Alt 1 Upgrade Existing		Alt 1 Upgrade Existing Shallow Bypass		Alt 11		Alt 12	
TYPE OF ACCESS:	NONE:☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐
	PARTIAL:☐	FULL: ☒	PARTIAL:☐	FULL: ☒	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒
ESTIMATED NO. OF PARCELS:	569		467		316		358	
RESIDENTIAL RELOCATEES:	128	$ 5,120,000	165	$ 6,600,000	99	$ 3,960,000	103	$ 4,118,400
BUSINESS RELOCATEES:	188	$ 9,675,000	115	$ 6,659,000	30	$ 2,800,000	35	$ 3,350,000
GRAVES:	414	$ 5,420,000	-	$ -	-	$ -	-	$ -
CHURCH / NON – PROFIT: ____	6	$ 300,000	4	$ 200,000	4	$ 200,000	4	$ 200,000
MISC: ____	16	$ 1,950,000	2	$ 3,100,000	2	$ 1,600,000	2	$ 1,600,000
SIGNS:	126	$ 4,525,000	56	$ 2,320,000	21	$ 880,000	34	$ 1,530,000
LAND, IMPROVEMENTS, & DAMAGES:	$ 150,610,850		$ 100,465,869		$ 65,886,507		$ 70,752,740	
ACQUISTION:	$ 5,690,000		$ 4,670,000		$ 3,160,000		$ 3,580,000	
TOTAL ESTIMATED R/W COST:	$ 183,290,850		$ 124,014,869		$ 78,486,507		$ 85,131,140	

CONTINUE PG. 2

CONTINUE from PG. 1

	Alt 31		Alt 32		Alt 35		Alt 36	
TIP: R-2553 COUNTY: Lenoir	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐
TYPE OF ACCESS:	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒
ESTIMATED NO. OF PARCELS:	285		310		358		348	
RESIDENTIAL RELOCATEES:	80	$ 3,200,000	95	$ 3,800,000	135	$ 5,405,000	118	$ 4,720,000
BUSINESS RELOCATEES:	27	$ 2,500,000	33	$ 3,225,000	28	$ 2,550,000	25	$ 2,196,000
GRAVES:	-	$ -	-	$ -	14	$ 140,000	14	$ 140,000
CHURCH / NON – PROFIT: _____	3	$ 150,000	3	$ 150,000	3	$ 150,000	3	$ 150,000
MISC: _____	1	$ 100,000	2	$ 1,600,000	1	$ 100,000	1	$ 100,000
SIGNS:	17	$ 755,000	29	$ 1,355,000	24	$ 1,300,000	12	$ 590,000
LAND, IMPROVEMENTS, & DAMAGES:	$ 53,945,984		$ 53,883,816		$ 52,466,140		$ 53,120,618	
ACQUISTION:	$ 2,850,000		$ 3,100,000		$ 3,580,000		$ 3,480,000	
TOTAL ESTIMATED R/W COST:	$ 63,500,984		$ 67,113,816		$ 65,691,140		$ 64,496,618	

	Alt 51		Alt 52		Alt 63		Alt 65	
TIP: R-2553 COUNTY: Lenoir	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐	NONE: ☐	LIMITED: ☐
TYPE OF ACCESS:	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒	PARTIAL: ☐	FULL: ☒
ESTIMATED NO. OF PARCELS:	310		338		313		291	
RESIDENTIAL RELOCATEES:	108	$ 4,320,000	122	$ 4,880,000	100	$ 4,000,000	85	$ 3,400,000
BUSINESS RELOCATEES:	24	$ 2,250,000	29	$ 2,800,000	33	$ 3,225,000	28	$ 2,675,000
GRAVES:	-	$ -	-	$ -	-	$ -	-	$ -
CHURCH / NON – PROFIT: _____	3	$ 150,000	3	$ 150,000	3	$ 150,000	3	$ 150,000
MISC: _____	1	$ 100,000	3	$ 350,000	2	$ 1,600,000	2	$ 1,600,000
SIGNS:	14	$ 650,000	26	$ 1,250,000	27	$ 1,300,000	15	$ 620,000
LAND, IMPROVEMENTS, & DAMAGES:	$ 44,429,036		$ 44,930,043		$ 50,689,740		$ 50,029,977	
ACQUISTION:	$ 3,100,000		$ 3,380,000		$ 3,130,000		$ 2,910,000	
TOTAL ESTIMATED R/W COST:	$ 54,999,036		$ 57,740,043		$ 64,094,740		$ 61,384,977	

NOTES: * *A conceptual design for a new solar farm is being provided with this report that will impact Alternatives 31, 32, 63 & 65. A letter of Zoning Approval was issued on 6-15-17 for this site. Letter was issued by Wayland Humphries with Lenoir County. The site is approximate 250 acres and will have a major impact to the cost of the estimate and is not reflected on the costs submitted by ORC.*

APPENDIX E: AGENCY

Contents
E-1 Correspondence between SHPO and NCDOT
E-2 MEMORANDUM: Historic Architecture Eligibility Evaluation Report, US 70 Kinston Bypass, R-2553, Lenoir County, ER 09-1307
E-3 Concurrence Form for Assessment of Effects Letter
E-4 USACE Start of Study Response Letter

E-1 Correspondence between SHPO and NCDOT

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

June 22, 2009

MEMORANDUM

TO: Greg Thorpe, Ph.D., Director
Project Development & Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter Sandbeck for Peter Sandbeck

SUBJECT: US 70 Kinston Bypass, WBS 34460, R-2553, Lenoir County, ER 09-1307

Thank you for your memorandum of May 28, 2009, concerning the above project.

There are more than seventy properties within the study area that are listed in the National Register of Historic Places, determined eligible for listing, on the State Study List, or locally designated. In addition there are hundreds of properties that have been identified as having historical or architectural interest as a result of a 1993 county-wide architectural survey.

More than 360 archaeological sites have been recorded within the study area. By topographic map, Kinston has the most, at 186; with Falling Creek next, at 89. Concentrated in the northwestern section of the study area, the majority of these sites were recorded in connection with the Global Transpark. Most of them were evaluated as not eligible for the National Register of Historic Places. Areas associated with the first Battle of Kinston (1862) are situated to the immediate southwest of Kinston. The southern, eastern, and southeastern portions of the study area have seen little archaeological survey.

Despite this omission, the south/southeastern portion of the study area includes the entire footprint of the 4,069-acre National Register-eligible Wyse Fork 1865 Battlefield. Proposed as a district, the area will be presented to the National Register Advisory Committee in October 2009, with listing anticipated soon after. Eight contributing elements fall within the District and includes the purported location of a mass burial associated with the battle.

While we note that this project review is only for a state action or permit, the potential for federal permits may require further consultation with us and compliance with Section 106 of the National Historic Preservation Act.

We recommend a comprehensive archaeological survey of the selected alternate to identify any sites that may be affected by the proposed project. Further, on selection of an alternate, effects to the Wyse Fork 1865 Battlefield District should be assessed. If affected, consultation with the Office of State Archaeology will be needed to develop appropriate mitigation plans.

Two copies of the resulting archaeological survey report, as well as one copy of the appropriate site forms, should be forwarded to us for review and comment as soon as they are available and well in advance of any construction activities.

It is our understanding that our agencies are working together to develop an up to date GIS database for this project, pending the necessary funding, and that additional survey work will be undertaken as part of that effort.

We appreciate our early inclusion in discussions for this project, and look forward to continuing to work with you.

These comments are made in accord with G.S. 121-12(a) and Executive Order XVI. If you have questions regarding them, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above-referenced tracking number.

cc: Mark Pierce, NCDOT
Matt Wilkerson, NCDOT
Mary Pope Furr, NCDOT
Scott McClendon, ACOE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

May 12, 2015

Ramona Bartos
Administrator, State Historic Preservation Office
Deputy State Historic Preservation Officer
4617 Mail Service Center
Raleigh, NC 27699-4617

Re: Final – Revised, Terrestrial Archaeological Resources Predictive Model for Administrative Action, State Environmental Impact Statement, Kinston Bypass, Lenoir, Jones, and Craven Counties, North Carolina, TIP No. R-2553, WBS No. 34460.1.2, ER 09-1307.

Ms. Bartos,

Enclosed please find two (2) copies of the revised terrestrial archaeological resources predictive model report prepared as part of the R-2553 Kinston Bypass project. In 2008, the North Carolina Interagency Leadership Team (ILT) established the Kinston Bypass project as a GIS pilot project as a means to streamline the project development process by utilizing GIS data for alternative development, alternative evaluation, and selection of the Least Environmentally Damaging Practicable Alternative (LEDPA). The information and data generated as a result of the predictive model analysis will be used in the completion of any archaeological investigations conducted once the Preferred Alternative has been chosen for the overall project.

Thank you for your assistance in this matter. Should you have any questions concerning this project, please contact me at (919) 707-6089 or Mr. Paul J. Mohler, NCDOT Archaeologist, at (919) 707-6080.

Regards,

Matt Wilkerson
Archaeology Supervisor
Human Environment Section

MTW/pjm

Enclosures (2 copies of final report)

cc: Bob Deaton, PDEA
Paul J. Mohler, Archaeology

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PDEA – HUMAN ENVIRONMENT SECTION
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6000
FAX: 919-212-5785

WEBSITE:
HTTPS://CONNECT.NCDOT.GOV/RESOURCES/ENVIRONMENTAL/PAGES/DEFAULT.ASPX

LOCATION:
CENTURY CENTER, BUILDING B
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

North Carolina Department of Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Pat McCrory
Secretary Susan Kluttz

Office of Archives and History
Deputy Secretary Kevin Cherry

June 18, 2015

MEMORANDUM

TO: Matt Wilkerson
Office of Human Environment
NCDOT Division of Highways

FROM: Ramona M. Bartos RSE for Ramona M. Bartos

SUBJECT: Final – Revised, Terrestrial Archaeological Resources Predictive Model for Administrative Action, State Environmental Impact Statement, Kinston Bypass, R-2553, WBS No. 34460.1.2, Lenoir, Jones and Craven Counties, ER 09-1307

Thank you for your letter of May 14, 2015 transferring the revised report to our office. We have reviewed the report for the project referenced above and offer the following comments.

The report presents the final version of a terrestrial predictive model for the Kinston Bypass, R-2553. We agree with the selection of the variables used in this model. We concur that the model appears useful in terms of determining high and low probability areas within the overall Kinston Bypass project area. We recommend the implementation of this model in the completion of any archaeological investigations conducted once the preferred alternative has been chosen.

The report meets our office's guidelines and those of the Secretary of the Interior. The present version of this document will serve well as a basic guide to assess the impacts of this project on archaeological resources. Please keep us informed of any revisions to this predictive model.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comments, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above-referenced tracking number.

Location: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 807-6570/807-6599

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

October 24, 2017

Ramona Bartos
Administrator, State Historic Preservation Office
Deputy State Historic Preservation Officer
4617 Mail Service Center
Raleigh, NC 27699-4617

Re: Revised - Terrestrial Archaeological Resources Predictive Model for Administrative Action, State Environmental Impact Statement, Kinston Bypass, Lenoir, Jones, and Craven Counties, North Carolina, TIP No. R-2553, WBS No. 34460.1.2, ER 09-1307.

Ms. Bartos,

Enclosed please find two (2) copies of the latest revised terrestrial archaeological resources predictive model report prepared as part of the R-2553 Kinston Bypass project. In 2008, the North Carolina Interagency Leadership Team (ILT) established the Kinston Bypass project as a GIS pilot project as a means to streamline the project development process by utilizing GIS data for alternative development, alternative evaluation, and selection of the Least Environmentally Damaging Practicable Alternative (LEDPA). The information and data generated as a result of the predictive model analysis will be used in the completion of any archaeological investigations conducted once the Preferred Alternative has been chosen for the overall project.

Thank you for your assistance in this matter. Should you have any questions concerning this project, please contact me at (919) 707-6089 or Mr. Paul J. Mohler, NCDOT Archaeologist, at (919) 707-6080.

Regards,

Matt Wilkerson
Archaeology Supervisor
Environmental Analysis Unit

MTW/pjm

Enclosures (2 copies of final report)

cc: Paul J. Mohler, Archaeology
Maria Rogerson, DOT Division 2

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
HUMAN ENVIRONMENT SECTION
1598 MAIL SERVICE CENTER
RALEIGH, NC 27699-1598

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1020 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

From: Wilkerson, Matt T
To: Jorgenson, Matt; Mohler, Paul J
Cc: Wilmot, Kory
Subject: RE: [External] R-2553 Kinston Bypass Archaeology Predictive Model October 2017 Update
Date: Thursday, November 30, 2017 9:40:15 AM
Attachments: image004.png
image001.png

Hi Matt,

We do not anticipate receiving comments on the updated model although the HPO ER notes will reflect the receipt of the revised information.

Regards,

Matthew Wilkerson
Archaeology Group Leader
Environmental Analysis Unit
N.C. Department of Transportation

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mtwilkerson@ncdot.gov

1020 Birch Ridge Drive
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

From: Jorgenson, Matt [mailto:matt.jorgenson@aecom.com]
Sent: Thursday, November 30, 2017 9:38 AM
To: Mohler, Paul J
Cc: Wilkerson, Matt T; Wilmot, Kory
Subject: RE: [External] R-2553 Kinston Bypass Archaeology Predictive Model October 2017 Update

Good morning, Paul.

Did NCDOT ever receive comments on the updated predictive model report from SHPO? We are updating our tracking/records and realized we haven't heard anything back on this.

IIRC I got the hardcopies to you like Oct 23ish? So maybe the standard 30-day period hasn't quite passed based on when exactly you submitted it to SHPO?

(please note my new cell phone number below and update your stored contact information with it)

Matthew Jorgenson, M.A., RPA
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From: Mohler, Paul J [mailto:pjmohler@ncdot.gov]
Sent: Tuesday, October 17, 2017 2:56 PM
To: Jorgenson, Matt; Cassedy, Daniel
Cc: Wilkerson, Matt T; Wilmot, Kory
Subject: RE: [External] R-2553 Kinston Bypass Archaeology Predictive Model October 2017 Update

Matt et al.,
This should be sufficient. Thanks for including the additional clarification. Please proceed with the hard copies.
Thanks,
Paul

From: Jorgenson, Matt [mailto:matt.jorgenson@aecom.com]
Sent: Tuesday, October 17, 2017 2:05 PM
To: Mohler, Paul J; Cassedy, Daniel
Cc: Wilkerson, Matt T; Wilmot, Kory
Subject: RE: [External] R-2553 Kinston Bypass Archaeology Predictive Model October 2017 Update

E-2 MEMORANDUM: Historic Architecture Eligibility Evaluation Report, US 70 Kinston Bypass, R-2553, Lenoir County, ER 09-1307

North Carolina Department of Natural and Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

October 27, 2017

MEMORANDUM

To: Mary Pope Furr, Senior Architectural Historian mfurr@ncdot.gov
NCDOT/PDEA/HES

From: Renee Gledhill-Earley
Environmental Review Coordinator

Subject: Historic Architecture Eligibility Evaluation Report, US 70 Kinston Bypass, R-2553, Lenoir County, ER 09-1307

Thank you for your September 28, 2017, submittal of the Historic Architecture Eligibility Evaluation Report, prepared by AECOM Technical Services for the above-referenced undertaking.

This report presents the results of the evaluation of the National Register of Historic Places (NRHP) eligibility for twenty-six architectural resources located within the project's Area of Potential Effects (APE); a re-evaluation of the integrity of seven historic architectural resources listed in the NRHP or determined eligible for listing in the NRHP; and a re-evaluation of the National Register-listed Wyse Fork Battlefield. We have reviewed the submittal and offer the following comments.

The following properties, previously listed in the NRHP or determined eligible for listing continue to retain sufficient historic integrity. The existing or recommended boundaries are appropriate:

- **James A. and Laura McDaniel House/Maxwood** (LR 0927): Determined eligible under Criterion C in 1998. Property has not been altered and retains historic integrity. We concur with the recommended determination and boundary.

- **Dr. James M. Parrott House** (LR 0703): Determined eligible in 1998. The report indicates that the property was determined eligible under Criteria A and C. While we concur with its potential eligibility under Criterion C, the information provided appears to support eligibility under Criterion B. Please check to be sure that Criterion B was not the intended recommendation. If Criterion B is being proposed, as this was used as a summer cottage, please provide information as to the existence and eligibility of other houses or buildings associated with Dr. Parrott's productive life. The property has changed little since 1998 and retains historic integrity. We concur with the recommended boundary.

- **Kennedy Memorial Home Historic District** (LR 1189): Listed under Criterion A in 2009. Property has not changed in any appreciable fashion since it was listed and retains historic integrity. The existing National Register boundary is appropriate.

- **Cedar Dell/Kennedy Memorial Home** (LR 0001): Listed under Criterion C in 1971. The property has not changed since it was listed and retains historic integrity. Existing seven-acre National Register boundary is appropriate and is now subsumed within the National Register boundary of the Kennedy Memorial Home Historic District.

- **Henry Loftin Herring Farm** (LR 0700): Determined eligible under Criteria A and C in 1998. The property has not notably changed since 1998 and retains historic integrity. We concur with the recommended determination and boundary.

- **Dempsey Wood House/James Wood House** (LR 0008): Listed under Criterion C in 1971. Despite the addition of vinyl siding, the house retains sufficient historic integrity to remain listed. The existing National Register boundary is appropriate.

- **Jesse Jackson House** (LR 0005): Listed under Criterion D in 1971. The property has changed little since it was listed and retains historic integrity. The existing National Register boundary is appropriate.

- **Wyse Fork Battlefield** (JN 0306): Listed under Criteria A and D in 2017. The property has not changed in any appreciable fashion since it was listed and retains historic integrity. The existing National Register boundary is appropriate.

The following properties are individually eligible for listing in the NRHP:

- **Sandy Bottom Primitive Baptist Church/Croom Meeting House** (LR 1040): Placed on the HPO Study List in 1994. The building retains a high degree of historic integrity and appears to be eligible under Criterion A in the areas of social history and religion, and under Criterion C as an excellent intact example of an antebellum meeting house/church. We concur with the recommended determination and boundary.

- **Kelly's Millpond Site [Mill Building]** (LR 1203): Determined eligible in 1990 and listed as a contributing property in the National Register-listed Wyse Fork Battlefield. The mill building has all but collapsed, leaving only a few members of the structural flooring system, timber supports, and mill foundation. The mill race and dam remain intact. Due to its ruinous condition, the mill building is no longer eligible under Criteria A, B, and C. Given that portions of the mill foundation, mill race, and dam remain intact, the mill site appears to be eligible under Criterion D for its information potential relating to mill technology. We recommend a site boundary consistent with the listed archaeological millpond site.

- **Cobb-King-Humphrey House** (LR 1197): Contributing property in the National Register-listed Wyse Fork Battlefield and referred to in the nomination as the Jackson/Cobb/Tolles House. The house retains a high degree of historic integrity and is eligible under Criterion A for its documented association with the Battle of Wyse Fork, and under Criterion C as a notable and intact representative example of Federal-style architecture in Lenoir County. Numerous nineteenth and twentieth-century outbuildings, a circa 1920 store, and an early/mid twentieth century one-story house remain on the property. While we concur with the recommended eligibility determination, the recommended southern boundary extends only to

the NCDOT right-of-way on the north side of US 70. Given the proximity of the house and store building to US 70, we recommend that the southern boundary extend to the edge of existing US 70 pavement. We concur with the recommended northern, eastern, and western boundaries as proposed.

- **Kelly's Pond Lookout Tower Complex** (LR 1550): The lookout tower retains a high degree of historic integrity and appears to be eligible under Criterion A for the role it played in conservation efforts and its association with the CCC, and under Criterion C as an excellent intact example of a mid-twentieth-century fire tower, towerman's house, and workshop complex. We concur with the recommended determination and boundary.

- **Elijah Loftin House** (LR 1195): Placed on the HPO Study List in 1994. The building retains a high degree of historic integrity and appears to be eligible under Criterion C as a notable intact example of a large late nineteenth/early-twentieth-century, T/L-plan farm house that represents a continued evolution of design. The house retains an unusually large number of contemporary outbuildings related to domestic activities and the production of food. We concur with the recommended determination and boundary.

The following properties are not individually eligible for listing in the NRHP, but do contribute to the Wyse Fork Battlefield (JN 0306):

- **Robert Bond Vause House** (LR 1186): Contributing property in the National Register-listed Wyse Fork Battlefield. We concur that due to deterioration and modern siding, the house is not individually eligible for listing in the NRHP under Criterion C.

- **Wooten-Whaley House/John Council Wooten House** (LR 1185): Placed on the HPO Study List in 1994. Contributing property in the National Register-listed Wyse Fork Battlefield. We concur that due to modern alterations including the application of aluminum siding, replacement windows and doors, and removal of the chimney stacks, the house is not eligible for listing in the NRHP under Criterion C.

The following properties are not eligible for listing in the NRHP due to the loss of integrity, nature of the property type, and/or significance:

- **Nathan George Sutton House** (LR 0956): We concur that due to the loss of the two-tier porch, large rear addition, and first-floor interior alterations the building has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D.

- **Banks Chapel Missionary Baptist Church** (LR 0914): We concur that due to the addition of a vestibule, steeple, rear wings, and the application of vinyl siding the building has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The church also does not meet Criterion A, B, D, or Criteria Consideration A.

- **Warters-Parrott-Coleman Farm** (LR 0967): We concur that due to the cumulative effect of interior and exterior alterations to the house, alterations to some outbuildings, and the loss of outbuildings (including a tenant house) the property has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The property also does not meet Criterion A, B, or D.

- **Trinity United Methodist Church** (LR 0702): We concur that due to the large additions, window replacement, brick veneer, and other alterations the church has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The church also does not meet Criterion A, B, D, or Criteria Consideration A. Please note that the Historic Property Survey Summary Form and database entry for the property indicate that the church is a contributing building in the Sandy Bottom Historic District. As this is not the case, please revise the form and database accordingly.

- **Moss Hill School** (former) (LR 1146): We concur that due to the relocation of the building, later additions, changes in fenestration, window replacement, application of vinyl siding, and changes to the floor plan the school has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The school also does not meet Criterion A, B, D or Criteria Consideration B.

- **Danny Shepherd House** (LR 1035): We concur that due to major alterations and additions, changes in fenestration, window replacement, application of vinyl siding, and alteration of outbuildings the house has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D.

- **Sandy Bottom Historic District** (LR 1039): We concur that the district is not eligible under Criteria A, B, and D. The district is recommended as being eligible for listing under Criterion C for its architecture. As described on page 95 the district consists of twenty resources, sixteen being contributing and four being non-contributing. The list of resources in the district indicates that fifteen are contributing and five are non-contributing. We believe that five additional resources are non-contributing, *viz*: the Taylor House due to the addition, modern siding, and window replacement. We also question the date of the half-shoulder chimneys; the Bessie Croom Stroud Store due to the large addition and change in roof slope that has altered the form of the building; the Sandy Bottom Baptist Church due to later additions, window replacement, and the application of vinyl siding; Webb Chapel United Methodist Church due to later additions, enlargement of the window openings, brick veneer, and the replacement of the front doors; and Ideal Glass and Mirror due to the change in the façade fenestration, modern glass doors, and the addition of brick veneer resulting in a significant change in appearance to the storefront. We also believe that the late twentieth century fellowship hall buildings at Sandy Bottom Baptist Church and Webb Chapel United Methodist Church should be both counted as individual non-contributing resources. This would result in a district of twenty-two total resources of which twelve would be non-contributing. Therefore, we believe that the collection of buildings does not retain enough integrity to warrant listing under Criterion C.

- **Sandy Bottom Baptist Church** (LR 1037): We concur that due to later additions, window replacement, and the application of vinyl siding the church has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The church also does not meet Criterion A, B, D, or Criteria Consideration A.

- **Webb Chapel United Methodist Church** (LR 1038): We concur that due to later additions, enlargement of the window openings, brick veneer, and the replacement of the front doors the church has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The church also does not meet Criterion A, B, D, or Criteria Consideration A. The associated **Joseph R. Croom Cemetery** does not have the level of significance to meet Criterion A, B, C, D or Criteria Consideration D. The cemetery does not appear to contain the graves of persons

of transcendent importance, is not of great age, does not exhibit distinctive design features, and is not associated with important historic events.

- **Woodington Elementary/Middle School** (LR 1544): We concur that due to modern additions, reduction of the historic window opening size, and replacement of the windows the school has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The school also does not meet Criterion A, B, or D.

- **Harper House** (LR 1545): We concur that the house is a common house type with the form and finishes altered through time and thus has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D.

- **Simpson Waller House** (LR 1213): Placed on the HPO Study List in 1994. We concur that due to the enclosure of the porch, replacement of porch elements, application of vinyl siding, replacement of windows, removal of the chimney stacks, interior alterations, and the loss of some outbuildings the house has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D.

- **Rouse-Capps House** (LR 0923): We concur that due to a large modern rear addition and the replacement of windows the house has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D.

- **C.S.S Neuse/ Governor Richard Caswell Memorial Visitors Center** (LR 0076): We concur that a modern rear addition and the replacement of windows has impacted the visitor's center's historic integrity. When compared with other institutional buildings the visitors center does not appear to be architecturally significant and is not eligible for listing in the NRHP under Criterion C. The visitors center also does not meet Criterion A, B, or D. As the building was constructed as a museum/visitor's center and not a monument it is not eligible under Criteria Consideration F. The **Caswell Cemetery** does not meet Criterion A, B, C, or D or Criteria Consideration D. ntil proven otherwise, the cemetery does not appear to contain the graves of persons of transcendent importance. It is not of great age, does not exhibit distinctive design features, and is not associated with important historic events. Please note that the C.S.S Neuse Shed is noted in the report as being constructed in both the 1960s and 1970s. Please revise to reflect correct date of construction.

- **Wilmouth Taylor Sutton House** (LR 1548): We concur that due to modern additions, the enlargement of window openings, replacement of doors and windows, and the application of vinyl siding the house has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D. The outbuildings do not constitute a significant historic collection of resources without an associated intact dwelling.

- **Moseley-Stroud House** (LR 0857): Placed on the HPO Study List in 1994. We concur that due to modern alterations and severe deterioration the house has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The house also does not meet Criterion A, B, or D.

- **Beautiful Valley Free Will Baptist Church** (JN 0102): We concur that due to modern additions, brick veneer, replacement of windows and doors, and modern interior finishes the church has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The church also does not meet Criterion A, B, D, or Criteria Consideration A.

- **Kings Chapel Church of Christ/Disciples of Christ** (LR 1194): We concur that due to the rear addition, brick veneer, and modern entry the church has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The church also does not meet Criterion A, B, D, or Criteria Consideration A.

- **Dover Teacherage** (CV 1410): We concur that due to a rear addition, the replacement of the windows and porch columns, the application of vinyl siding, and changes to the interior floor plan the teacherage has lost historic integrity and is not eligible for listing in the NRHP under Criterion C. The teacherage also does not meet Criterion A, B, or D. As a vestige of a school complex, the **Dover School Vocational Agricultural Building** does not meet Criterion A, B, C, or D.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR part 800.

Thank you for your cooperation and consideration. If you have any questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/807-6579.

E-3 Concurrence Form for Assessment of Effects Letter

TIP#: **R-2553** ***Counties:*** **Lenoir, Jones, and Craven**

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Kinston Bypass -- All alternatives designed to be 4-lane facility with 12' lanes, 46' median, and 12' paved shoulders. Service roads with 12' lanes and 4' shoulders will be included, where needed.

On *November 28, 2017,* representatives of the

- [x] North Carolina Department of Transportation (NCDOT)
- [x] US Army Corps of Engineers (USACE)
- [x] North Carolina State Historic Preservation Office (HPO)
- [ ] Other

Reviewed the subject project and agreed on the effects findings listed within the table on the reverse of this signature page.

Signed:

Mary Pope Furr 1/30/2018

Representative, NCDOT Date

STEFFENS.THOMAS.ANCRUM.1284706273

Digitally signed by STEFFENS.THOMAS.ANCRUM.1284706273
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=STEFFENS.THOMAS.ANCRUM.1284706273
Date: 2018.02.05 14:41:27 -05'00'

Representative, USACE Date

Renee Gledhill-Earley 1.30.18

Representative, HPO Date

Wyse Fork Battlefield (JN 0306) -- NR, Criteria A&D

Alternative	Effects Assessment
1UE	ADVERSE EFFECT- impacts to 207.4 acres in district, impacts to archaeological features along existing US 70, impacts to Cobb King Humphrey House. Requires ROW from historic district.
1SB	ADVERSE EFFECT- impacts to 266.9 acres in district, impacts to archaeological features along existing US 70, impacts to Cobb King Humphrey House. Requires ROW from historic district.
11	No Effect – no construction in district boundaries
12	ADVERSE EFFECT- impacts to 141.9 acres in district , impacts to archaeological features
31	No Effect – no construction in district boundaries
32	ADVERSE EFFECT- impacts to 141.9 acres in district , impacts to archaeological features
35	ADVERSE EFFECT- impacts to 94.2 acres in district , impacts to archaeological features (closest alternative to potential mass grave site)
36	No Effect – no construction in district boundaries
51	No Effect – no construction in district boundaries
52	ADVERSE EFFECT- impacts to 141.9 acres in district , impacts to archaeological features
63	ADVERSE EFFECT- impacts to 141.9 acres in district , impacts to archaeological features
65	No Effect – no construction in district boundaries

Kelly's Millpond Site (LR 1203) – DE individual, Criterion D, contributes to (JN0306)

Alternative	Effects Assessment
1UE	No Adverse Effect with environmental commitments –adjacent to replacement bridges and 27' from boundary to new ROW but no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
1SB	No Adverse Effect with environmental commitments –adjacent to replacement bridges and 27' from boundary to new ROW but no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
11	No Effect -- no construction in historic property's boundaries
12	No Effect – no construction in vicinity of site
31	No Effect -- no construction in historic property's boundaries
32	No Effect – no construction in vicinity of site
35	No Effect – no construction in vicinity of site
36	No Effect -- no construction in historic property's boundaries
51	No Effect -- no construction in historic property's boundaries
52	No Effect – no construction in vicinity of site
63	No Effect – no construction in vicinity of site
65	No Effect -- no construction in historic property's boundaries

Cobb-King-Humphrey House (LR 1197) – DE individual, Criteria A&C, contributes to (JN0306)

Alternative	Effects Assessment
1UE	ADVERSE EFFECT- impacts to 4.9 acres. Requires ROW from historic boundary and removal of contributing structures
1SB	ADVERSE EFFECT- impacts to 4.9 acres. Requires ROW from historic boundary and removal of contributing structures
11	No Effect -- no construction in historic property's boundaries
12	No Effect – no construction in vicinity of site
31	No Effect -- no construction in historic property's boundaries
32	No Effect – no construction in vicinity of site
35	No Effect – no construction in vicinity of site
36	No Effect -- no construction in historic property's boundaries
51	No Effect -- no construction in historic property's boundaries
52	No Effect – no construction in vicinity of site
63	No Effect – no construction in vicinity of site
65	No Effect -- no construction in historic property's boundaries

Kelly's Pond Lookout Tower Complex (LR 1550) – DE individual, Criteria A&C, contributes to (JN0306)

Alternative	Effects Assessment
1UE	No Adverse Effect with environmental commitments –1,353' from tower to new ROW and no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
1SB	No Adverse Effect with environmental commitments –1,353' from tower to new ROW and no ROW required from historic property. If f construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
11	No Effect -- no construction in historic property's boundaries
12	No Effect – no construction in vicinity of site
31	No Effect -- no construction in historic property's boundaries
32	No Effect – no construction in vicinity of site
35	No Effect – no construction in vicinity of site
36	No Effect -- no construction in historic property's boundaries
51	No Effect -- no construction in historic property's boundaries
52	No Effect – no construction in vicinity of site
63	No Effect – no construction in vicinity of site
65	No Effect -- no construction in historic property's boundaries

Robert Bond Vause House (LR 1186) -- contributes to (JN0306)

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	No Effect – no construction in vicinity of site
12	No Adverse Effect –1,068' from dwelling to new ROW and no ROW required from historic property. Access to the site will change. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
31	No Effect – no construction in vicinity of site
32	No Adverse Effect –1,068' from dwelling to new ROW and no ROW required from historic property. Access to the site will change. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
35	No Effect –1,678' from dwelling to new ROW and no ROW required from historic property. It will not impact the characteristics for which the property is a contributing resource within the historic district
36	No Effect – no construction in vicinity of site
51	No Effect – no construction in vicinity of site
52	No Adverse Effect –1,068' from dwelling to new ROW and no ROW required from historic property. Access to the site will change. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
63	No Adverse Effect –1,068' from dwelling to new ROW and no ROW required from historic property. Access to the site will change. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
65	No Effect – no construction in vicinity of site

Wooten-Whaley House/John Council Wooten House (LR 1185) -- contributes to (JN0306)

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	No Adverse Effect –1,021' from dwelling to new ROW and no ROW required from historic property. Access to the site will change. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
12	No Adverse Effect –398' from dwelling to new ROW but no ROW required from historic property. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
31	No Adverse Effect –1,021' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
32	No Effect – no construction in vicinity of site
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	No Adverse Effect –1,021' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
52	No Adverse Effect –398' from dwelling to new ROW but no ROW required from historic property. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district
63	No Adverse Effect –398' from dwelling to new ROW but no ROW required from historic property. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district

65	No Adverse Effect –1,021' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed adjacent to the dwelling it will not impact the characteristics for which the property is a contributing resource within the historic district

Dempsey Wood House/James Wood House (LR 0008) – NR, Criteria A&C

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	No Effect – no construction in vicinity of site
12	No Effect – no construction in vicinity of site
31	No Effect – no construction in vicinity of site
32	No Effect – no construction in vicinity of site
35	No Adverse Effect but reasonably foreseeable indirect and cumulative effects –578' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible, but HPO would like to review future driveway permits and proposed improvements to Kennedy Home Road in vicinity of historic property
36	No Adverse Effect but reasonably foreseeable indirect and cumulative effects –578' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible, but HPO would like to review future driveway permits and proposed improvements to Kennedy Home Road in vicinity of historic property
51	No Effect – no construction in vicinity of site
52	No Effect – no construction in vicinity of site
63	No Effect – no construction in vicinity of site
65	No Effect – no construction in vicinity of site

Sandy Bottom Primitive Baptist Church /Croom Meeting House (LR 1040) – DE, Criteria A&C

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	No Effect – no construction in vicinity of site
12	No Effect – no construction in vicinity of site
31	No Effect – no construction in vicinity of site
32	No Effect – no construction in vicinity of site
35	ADVERSE EFFECT -- reasonably foreseeable indirect and cumulative effects –3' from meeting house to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Highway 55 in vicinity of historic property
36	ADVERSE EFFECT -- reasonably foreseeable indirect and cumulative effects –3' from meeting house to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Highway 55 in vicinity of historic property
51	No Effect – no construction in vicinity of site
52	No Effect – no construction in vicinity of site
63	No Effect – no construction in vicinity of site
65	No Effect – no construction in vicinity of site

James A. & Laura McDaniel House/Maxwood (LR 0927) – DE, Criterion C

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	No Effect – no construction in vicinity of site
12	No Effect – no construction in vicinity of site
31	ADVERSE EFFECT- impacts to 4.7 acres. Requires ROW from historic boundary and removal of contributing structures
32	ADVERSE EFFECT- impacts to 4.7 acres. Requires ROW from historic boundary and removal of contributing structures
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	No Effect – no construction in vicinity of site
52	No Effect – no construction in vicinity of site
63	No Adverse Effect but reasonably foreseeable indirect and cumulative effects –551' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible, but HPO would like to review future driveway permits and proposed improvements to Kennedy Home Road in vicinity of historic property
65	No Adverse Effect but reasonably foreseeable indirect and cumulative effects –551' from dwelling to new ROW and no ROW required from historic property. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible, but HPO would like to review future driveway permits and proposed improvements to Kennedy Home Road in vicinity of historic property

Kennedy Memorial Home Historic District, including. Cedar Dell (LR 1189 and LR 0001), -- NR, Criterion A&C

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	No Adverse Effect – impacts to 18.1 acres on eastern edge of property where there is a plan to construct a solar farm. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
12	No Adverse Effect – impacts to 18.1 acres on eastern edge of property where there is a plan to construct a solar farm. If construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
31	ADVERSE EFFECT- impacts to 55.8 acres. Requires ROW from historic boundary and bisects structures from contributing landscape, new roadway directly adjacent to campus buildings
32	ADVERSE EFFECT- impacts to 55.8 acres. Requires ROW from historic boundary and bisects structures from contributing landscape, new roadway directly adjacent to campus buildings
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	No Effect – no construction in vicinity of site
52	No Effect – no construction in vicinity of site
63	ADVERSE EFFECT- impacts to 109.9 acres. Requires ROW from historic boundary and two new roadways intersect in lower half of contributing landscape
65	ADVERSE EFFECT- impacts to 109.9 acres. Requires ROW from historic boundary and two new roadways intersect in lower half of contributing landscape

Dr. James M. Parrott House (LR 0703) – DE, Criteria A&C

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Adverse Effect with environmental commitments – 0.2 acres of impacts required for upgrades to Sanderson Road so it can serve as service road. NCDOT must honor mitigation commitments of R-2719 project and plant screening landscape on former eastbound lanes of US 70. In addition, if construction staging areas not allowed within historic boundaries and access to the historic site remains the same it will not impact the characteristics for which the property is eligible
11	ADVERSE EFFECT – new roadway directly adjacent to historic farmstead, 465' from dwelling to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Sanderson Way in vicinity of historic property
12	ADVERSE EFFECT – new roadway directly adjacent to historic farmstead, 465' from dwelling to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Sanderson Way in vicinity of historic property
31	ADVERSE EFFECT – new roadway will be elevated 25' directly adjacent to historic farmstead, 437' from dwelling to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Sanderson Way in vicinity of historic property
32	ADVERSE EFFECT – new roadway will be elevated 25'directly adjacent to historic farmstead, 437' from dwelling to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Sanderson Way in vicinity of historic property
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	No Effect – no construction in vicinity of site

52	No Effect – no construction in vicinity of site
63	ADVERSE EFFECT – new roadway will be elevated 25'directly adjacent to historic farmstead, 437' from dwelling to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Sanderson Way in vicinity of historic property
65	ADVERSE EFFECT – new roadway will be elevated 25'directly adjacent to historic farmstead, 437' from dwelling to new ROW but no ROW required from historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to Sanderson Way in vicinity of historic property

Henry Loftin Herring Farm (LR 0700) – DE Criteria A&C

Alternative	Effects Assessment
1UE	No Adverse Effect with environmental commitments – bypass elevated and interchange @ west side of property, 975' from dwelling to new ROW, 1.8 acres of impacts required for upgrades to US 70 and control of access will require relocation of driveway. If construction staging areas not allowed within historic boundaries and HPO has the opportunity to review and comment on the driveway relocation plans it will not impact the characteristics for which the property is eligible
1SB	No Adverse Effect with environmental commitments – bypass elevated and interchange @ east side of property, 975' from dwelling to new ROW, 1.8 acres of impacts required for upgrades to US 70 and control of access will require relocation of driveway. If construction staging areas not allowed within historic boundaries and HPO has the opportunity to review and comment on the driveway relocation plans it will not impact the characteristics for which the property is eligible
11	No Effect – no construction in vicinity of site
12	No Effect – no construction in vicinity of site
31	No Effect – no construction in vicinity of site
32	No Effect – no construction in vicinity of site
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	No Effect – no construction in vicinity of site
52	No Effect – no construction in vicinity of site
63	No Effect – no construction in vicinity of site
65	No Effect – no construction in vicinity of site

Jesse Jackson House (LR 0005) – NR, Criterion D

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	ADVERSE EFFECT – new roadway and interchange will be west of historic farmstead and will require service roads and ramps, 387' from dwelling to new ROW and 2.0 acres of impacts to historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to NC 11 in vicinity of historic property
12	ADVERSE EFFECT – new roadway and interchange will be west of historic farmstead and will require service roads and ramps, 387' from dwelling to new ROW and 2.0 acres of impacts to historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to NC 11 in vicinity of historic property
31	ADVERSE EFFECT – new roadway and interchange will be west of historic farmstead and will require service roads and ramps, 387' from dwelling to new ROW and 2.0 acres of impacts to historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to NC 11 in vicinity of historic property
32	ADVERSE EFFECT – new roadway and interchange will be west of historic farmstead and will require service roads and ramps, 387' from dwelling to new ROW and 2.0 acres of impacts to historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to NC 11 in vicinity of historic property
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	No Effect – no construction in vicinity of site
52	No Effect – no construction in vicinity of site

63	ADVERSE EFFECT – new roadway and interchange will be west of historic farmstead and will require service roads and ramps, 387' from dwelling to new ROW and 2.0 acres of impacts to historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to NC 11 in vicinity of historic property
65	ADVERSE EFFECT – new roadway and interchange will be west of historic farmstead and will require service roads and ramps, 387' from dwelling to new ROW and 2.0 acres of impacts to historic property. Potential access complications, potential noise impacts during and after construction and possible construction staging area will impact the characteristics for which the property is eligible. HPO would like to review noise study results, staging areas, future driveway permits and proposed improvements to NC 11 in vicinity of historic property

Elijah Loftin Farm (LR 1195) – DE, Criterion C

Alternative	Effects Assessment
1UE	No Effect – no construction in vicinity of site
1SB	No Effect – no construction in vicinity of site
11	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
12	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
31	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
32	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
35	No Effect – no construction in vicinity of site
36	No Effect – no construction in vicinity of site
51	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
52	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
63	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures
65	ADVERSE EFFECT- impacts to 4.5 acres of historic property and requires demolition of contributing structures

E-4 USACE Start of Study Response Letter

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

REPLY TO
ATTENTION OF

March 4, 2010

Regulatory Division

SUBJECT: ORM ID SAW-2009-01603; Start of Study Letter for US Highway 70 Kinston Bypass located on new location between the Town of LaGrange, Lenoir County and the Town of Dover, Jones County, North Carolina, STIP No. R-2553

Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Dr. Thorpe:

Please reference your request for information regarding potential environmental impacts associated with the proposed US 70 Kinston Bypass, (STIP No. R-2553), currently defined as a 12- mile, four-lane, median-divided freeway on new location. The proposed project study area is located between LaGrange and Dover, in Lenoir and Jones Counties, North Carolina.

Based on information provided in your letter and enclosed map, it was noted that any proposed 12-mile, four-lane, median-divided freeway will likely impact the main stem of the Neuse River, multiple major stream systems, floodplains and wetlands adjacent to and associated with the Neuse River. These resource areas provide a number of benefits to receiving waters including the attenuation and de-synchronization of flood events, improvements to water quality in downstream receiving waters, and the uptake and transformation of many biologically active compounds. These areas also provide valuable wildlife habitat for a variety of birds, mammals, amphibians, and reptiles. In addition, the Neuse River and its associated tributaries may provide suitable spawning and foraging habitat for anadromous fish and threatened and endangered species. You should be aware that we consider these wetlands and tributaries to be of high quality and therefore believe that all efforts should be undertaken to avoid and minimize impacts. These efforts should include bridging to avoid wetland, stream and/or flood plain impacts, utilizing off-site detours, employing temporary work bridges during project construction, and the removal of any approach fills not necessary for the project.

As there is no Federal Highway Administration (FHWA) funding for this project and it will require a permit from the Wilmington District, U.S. Army Corps of Engineers (Corps) under authority of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, we understand that the Corps will be the lead federal agency for ensuring the project's compliance with National Environmental Policy Act (NEPA). Although FHWA will not be

involved, we believe that this project should be carried forward through the Merger Process in accordance with the 2005 Merger agreement. In addition, we suggest that you review Appendix B of the Corps of Engineers regulations (found at 33 C.F.R. § 325, Appendix B) regarding NEPA compliance and Section 404 of the Clean Water Act to assist in your NEPA planning efforts (copy enclosed).

Based on our initial evaluation of the project, we believe that this project will require an Environmental Impact Statement (EIS). Although we will not require that a third party contract be executed for the preparation of this document, we want to stress that this document will become the Corps of Engineers' NEPA document for this project. To this end, we will need to ensure that the contractor preparing the EIS does not have any financial interest in the outcome of the NEPA or 404 permit process. I have enclosed a disclosure statement that must be signed by the lead contractor developing the document and returned to us for our files. In addition, we will need to be invited to any public scoping meetings and/or public hearings you may hold concerning this project, and may need to hold hearings or scoping meetings of our own, if the need arises. In accordance with the Council on Environmental Quality (CEQ) requirements, we will publish a Notice of Intent (NOI) to prepare an EIS in the Federal Register and will be responsible for distribution of the draft and final EIS to EPA and the public for review and comment. Finally, it is our intention to prepare our own Record of Decision (ROD) for the project once the EIS has been finalized. As the Corps will be the lead federal agency on the project, and holds ultimate responsibility for the content of the EIS, it will be incumbent upon NCDOT to provide advance copies of the EIS to the Corps for review and approval prior to NCDOT's circulation of the document to any other agency or to the public.

As indicated in our letter of November 4, 2009 to you, it will be incumbent upon NCDOT to ensure that the GIS data for stream and wetlands that is collected during the alternatives analysis is sufficiently accurate for us to make decisions to satisfy our requirements relative to Section 404 of the Clean Water Act including the 404 (b) (1) Guidelines. As the GIS effort/method is developed, we would like to participate in the on-the-ground verification of Department of the Army (DA) jurisdictional streams and wetlands. We believe that it is important to reiterate that prediction of the location and amount of jurisdictional streams wetlands from remotely sensed data will be very difficult on the coastal plain of NC and that adequate ground-truthing must be conducted to ensure its accuracy.

Department of the Army (DA) permit authorization, pursuant to Section 404 of the Clean Water Act of 1977, as amended, will be required for the discharge of excavated or fill material in waters of the United States or any adjacent or isolated wetlands in conjunction with this project, including disposal of construction debris. Under our mitigation policy, impacts to wetlands should first be avoided or minimized. We will then consider compensatory mitigation for unavoidable impacts. When final plans are completed, including the extent and location of any work in wetlands, our regulatory branch would appreciate the opportunity to review these plans for project-specific determinations of DA permit requirements.

During the alternatives analysis phase, the Corps, as lead Federal agency, would recommend that all investigations for Historic Properties, Essential Fish Habitat and Threatened and Endangered species be conducted in accordance with survey level investigations as

conducted now on any Federal aid project. In order to ensure that our requirements pursuant to Section 106 of the Historic Preservation Act, the Magnuson-Stevens Fishery Management and Conservation Act, and Section 7 of the Endangered Species Act are met, we would like to be invited to any coordination and/or consultation meetings with the State Historic Preservation Office (SHPO), National Marine Fisheries Service (NMFS), and/or the US Fish and Wildlife Service. Once the Corps effect(s) determinations have been made, we expect that NCDOT will prepare appropriate documentation (eg, Biological Assessments, Surveys for historic/archeological features, EFH documentation) and forward to the Corps for review prior to transmittal to the appropriate agency. Environmental Justice (EJ) issues (if any) will need to be clearly identified and adequately addressed in the NEPA document. Depending on the level and severity of impacts, additional public involvement and outreach may be necessary in order to fully satisfy our requirements under the EJ Executive Order.

In order to clarify our intentions regarding the development of NEPA documents in support of State funded projects, we would like to meet with you and members of your project development staff to discuss the contents of this letter. In the meantime please do not hesitate to contact Mr. Tom Steffens in the Washington Regulatory Field Office at (910) 251- 4615 or the undersigned at (910) 251-4811.

Sincerely,

Mickey Sugg
Acting Assistant Chief,
Regulatory Division

Enclosure

Copies furnished (without enclosure):

Mr. Brian Wrenn
NCDENR-DWQ
Wetlands Section
1621 Mail Service Center
Raleigh, NC 27699-1621

Mr. Pete Benjamin
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Post Office Box 33726
Raleigh, North Carolina 27636-3726

Christopher Militscher
USEPA Raleigh Office
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310 New Bern Avenue, Room 206
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Mr. Travis Wilson
Highway Coordinator
North Carolina Wildlife Resources Commission
1142 I-85 Service Road
Creedmoor, North Carolina 27522

APPENDIX F: NATURAL RESOURCES

Contents
F-1 Soils in the NRTR study area
F-2 Water Resources
F-3 Birds, mammals, reptiles, and amphibians likely to occur within the project study area
F-4 Aquatic wildlife likely to occur in the project study area
F-5 Field Meeting Summaries
F-6 Stream and Wetland Model Development & Metadata
F-7 Impacted Streams

F-1 Soils in the NRTR study area

Table F-1: Soils in the NRTR study area

Soil Series	Mapping Unit	Drainage Class	Hydric Status	County
Alpin fine sand, 0-6% slopes	AnB	Excessively drained	Nonhydric	Jones
Autryville loamy fine sand, 0-4% slopes	AuB	Well drained	Hydric[a]	Jones
Bibb soils, frequently flooded	BB	Poorly drained	Hydric	Lenoir
Blanton sand, 0-6% slopes	Bn	Moderately well drained	Hydric[a]	Lenoir
Chewacla loam, frequently flooded	Ch	Somewhat poorly drained	Hydric[a]	Lenoir
Coxville loam	Co	Poorly drained	Hydric	Lenoir
Craven fine sandy loam, 1-4% slopes	Cr	Moderately well drained	Hydric[a]	Lenoir
Croatan muck	Ct	Very poorly drained	Hydric	Jones
Craven fine sandy loam, 4-8% slopes	Cv	Moderately well drained	Hydric[a]	Lenoir
Goldsboro loamy sand, 0-2% slopes	Go	Moderately well drained	Hydric[a]	Lenoir, Jones
Goldsboro loamy sand, 0-2% slopes	GoA	Moderately well drained	Hydric[a]	Craven
Grifton sandy loam	Gr	Poorly drained	Hydric	Lenoir
Grifton fine sandy loam	Gt	Poorly drained	Hydric	Jones
Johns sandy loam	Jo	Moderately well drained	Hydric[a]	Lenoir, Jones
Kalmia loamy sand, 0-2% slopes	Ka	Well drained	Nonhydric	Lenoir
Kalmia loamy sand, 0-3% slopes	KaA	Well drained	Hydric[a]	Jones
Kalmia loamy sand, 2-6% slopes	Kb	Well drained	Hydric[a]	Lenoir
Kenansville loamy sand, 0-6% slopes	Ke	Well drained	Nonhydric	Lenoir
Kinston loam, frequently flooded	Kn	Poorly drained	Hydric	Lenoir
Lakeland sand, 0-6% slopes	La	Excessively drained	Hydric[a]	Lenoir

Soil Series	Mapping Unit	Drainage Class	Hydric Status	County
Leaf loam	Le	Poorly drained	Hydric	Lenoir
Lenoir loam	Ln	Somewhat poorly drained	Hydric[a]	Lenoir
Leon sand	Ln	Poorly drained	Hydric	Craven, Jones
Leon sand	Lo	Poorly drained	Hydric	Lenoir
Lumbee sandy loam	Lu	Poorly drained	Hydric	Lenoir
Lynchburg sandy loam	Ly	Somewhat poorly drained	Hydric[a]	Lenoir, Craven, Jones
Meggett fine sandy loam	Me	Poorly drained	Hydric	Lenoir, Craven, Jones
Muckalee loam	Mk	Poorly drained	Hydric	Jones
Masontown mucky fine sandy loam and Muckalee sandy loam, frequently flooded	MM	Poorly drained and very poorly drained	Hydric	Craven
Murville fine sand	Mu	Very poorly drained	Hydric	Lenoir, Jones
Norfolk loamy sand, 0-2% slopes	Na	Well drained	Hydric[a]	Lenoir
Norfolk loamy sand, 2-6% slopes	Nb	Well drained	Hydric[a]	Lenoir
Norfolk loamy sand, 6-10% slopes	Nc	Well drained	Nonhydric	Lenoir
Norfolk loamy sand, 1-4% slopes	NoB	Well drained	Hydric[a]	Jones
Norfolk loamy fine sand, 2-6% slopes	NoB	Well drained	Hydric[a]	Craven
Onslow fine sandy loam	On	Moderately well drained	Hydric[a]	Jones
Onslow loamy sand	On	Moderately well drained	Hydric[a]	Craven
Pactolus loamy sand	Pa	Moderately well drained	Hydric[a]	Lenoir, Craven
Pamlico muck	Pc	Very poorly drained	Hydric	Lenoir

Soil Series	Mapping Unit	Drainage Class	Hydric Status	County
Pantego loam	Pe	Very poorly drained	Hydric	Lenoir
Pantego loam	Pn	Very poorly drained	Hydric	Jones
Pocalla loamy sand, 0-6% slopes	Po	Somewhat excessively drained	Nonhydric	Lenoir
Portsmouth loam	Pr	Very poorly drained	Hydric	Lenoir
Rains sandy loam	Ra	Poorly drained	Hydric	Lenoir, Craven, Jones
Stallings loamy sand	St	Somewhat poorly drained	Hydric[a]	Lenoir, Jones
Stockade loamy fine sand	Sx	Very poorly drained	Hydric	Jones
Tomotley fine sandy loam	Tm	Poorly drained	Hydric	Craven
Torhunta loam	To	Very poorly drained	Hydric	Lenoir, Craven, Jones
Umbric ochraqualfs	Uo	Poorly drained	Hydric[a]	Lenoir
Wagram loamy sand, 0-6% slopes	Wb	Well drained	Hydric[a]	Lenoir
Wagram loamy sand, 6-10% slopes	Wc	Well drained	Nonhydric	Lenoir
Wagram loamy sand, 10-15% slopes	Wd	Well drained	Nonhydric	Lenoir
Wickham loamy sand, 1-6% slopes	Wk	Well drained	Hydric[a]	Lenoir
Woodington loamy sand	Wn	Poorly drained	Hydric	Lenoir
Woodington fine sandy loam	Wo	Poorly drained	Hydric	Jones

Source: NCDOT 2017b

[a] Soils that are primarily nonhydric, but that may contain hydric inclusions.

F-2 Water Resources

Table F-2: Notable water resources in the NRTR study area

Stream Name	Stream ID	NCDWR Index Number	Best Usage Classification and Designation	Within Designated FEMA Floodway	Number of Unnamed Tributaries within NRTR Study Area
Neuse River	S1	27-(56); 27-(70.5); (27-75.3); 27-(75.7)	C; NSW; WS-IV; AFSA; IPNA	Yes	185
Falling Creek	S2	27-77	C; Sw; NSW	Yes	87
Southwest Creek	S3	27-80	C; Sw; NSW	Yes	70
Bear Creek	S4	27-72-(5)	WS-IV; Sw; NSW	Yes	9
Mosely Creek	S5	27-77-2	C; Sw; NSW	Yes	5
Buck Branch	S6	27-77-2-0.5	C; Sw; NSW	No	5
Walters Mill Pond	S7	27-77-2-1	C; Sw; NSW	No	5
Squirrel Creek	S8	27-75	WS-IV; Sw; NSW	Yes	2
Whitley's Creek	S9	27-76	C; Sw; NSW	Yes	12
White Mash Run	S10	27-77-2.5	C; Sw; NSW	Yes	6
Gum Swamp Creek	S11	27-77-3	C; Sw; NSW	Yes	21
Peter Creek	S12	27-78	C; Sw; NSW	No	14
Clarks Branch	S13	27-80-4	C; Sw; NSW	Yes	8
Lucy Branch	S14	27-80-5-1	C; Sw; NSW	No	2
Spring Branch	S15	27-80-5	C; Sw; NSW	Yes	6
Vine Swamp	S16	27-101-15-1	C; Sw; NSW	No	5
Wheat Swamp Creek	S17	27-86-24	C; Sw; NSW	Yes	26
Briery Run	S18	27-81-1	C; Sw; NSW	Yes	34
Taylors Branch	S19	27-81-1-1	C; Sw; NSW	Yes	4
Stonyton Creek	S20	27-81	C; Sw; NSW	Yes	56
Yadkin Branch	S21	27-79	C; Sw; NSW	Yes	22
Mott Swamp	S22	27-80-6	C; Sw; NSW	Yes	9
Strawberry Branch	S23	27-80-7	C; Sw; NSW	Yes	15

Stream Name	Stream ID	NCDWR Index Number	Best Usage Classification and Designation	Within Designated FEMA Floodway	Number of Unnamed Tributaries within NRTR Study Area
Jericho Run	S24	27-81-2	C; Sw; NSW	Yes	19
Mill Branch	S25	27-80-8	C; Sw; NSW	Yes	11
Heath Branch	S26	27-80-9	C; Sw; NSW	Yes	18
Rattlesnake Branch[a]	S27	27-101-15-2	C; Sw; NSW	No	2
Beaverdam Branch	S28	27-83	C; Sw; NSW	No	12
Bone Gray Branch	S29	27-82	C; Sw; NSW	Yes	2
Mosley Creek[a]	S30	27-84	C; Sw; NSW	Yes	1
Harrys Branch	S31	27-84-3	C; Sw; NSW	Yes	7
Tracey Swamp	S32	27-84-1	C; Sw; NSW	Yes	22
Gum Swamp	S33	27-84-1-1	C; Sw; NSW	No	2
Core Creek	S34	27-90	C; Sw; NSW	No	11
Hallam Branch	S35	27-86-24-1	C; Sw; NSW	No	4
Jumping Run[a]	S36	27-77-1	C; Sw; NSW	Yes	2

Source: NCDOT 2017b

[a] The main stems of Mosley Creek, Jumping Run, and Rattlesnake Branch are not within the NRTR study area, but some tributaries to these water resources are contained within the NRTR study area.

C- Class C Waters (C), NSW- Nutrient Sensitive Waters, Sw- Swamp Waters, WS-IV- waters within a water supply watershed, AFSA- Anadromous Fish Spawning Areas, and IPNA- Inland Primary Nursery Areas.

F-3 Birds, mammals, reptiles, and amphibians likely to occur within the project study area

List F-1: Birds, mammals, reptiles, and amphibians likely to occur within the project study area

Common year-round resident birds may include the following:

- turkey vulture* (*Cathartes aura*)
- red-shouldered hawk* (*Buteo lineatus*)
- red-tailed hawk (*Buteo jamaicensis*)
- American robin (*Turdus migratorius*)
- northern cardinal* (*Cardinalis cardinalis*)
- eastern towhee (*Pipilo erythrophthalmus*)
- American crow (*Corvus brachyrhynchos*)
- American woodcock (*Scolopax minor*)
- eastern bluebird* (*Sialia sialis*)
- northern mockingbird* (*Mimus polyglottos*)
- Carolina wren (*Thryothorus ludovicianus*)
- Carolina chickadee (*Poecile carolinensis*)
- northern bobwhite* (*Colinus virginianus*)
- rock dove (*Columba livia*)
- pileated woodpecker* (*Dryocopus pileatus*)
- red-bellied woodpecker (*Melanerpes carolinus*)
- mourning dove* (*Zenaida macroura*)
- blue jay* (*Cyanocitta cristata*)
- American goldfinch (*Spinus tristis*)
- northern flicker (*Colaptes auratus*)
- common starling* (*Sturnus vulgaris*)
- tufted titmouse (*Baeolophus bicolor*)
- pine warbler (*Setophaga pinus*)
- wild turkey* (*Meleagris gallopavo*)
- Cooper's hawk (*Accipiter cooperii*)
- field sparrow (*Spizella pusilla*)
- gray catbird (*Dumetella carolinensis*)
- Canada goose* (*Branta canadensis*)
- great blue heron* (*Ardea herodias*)

Common winter residents may include the following:

- song sparrow (*Melospiza melodia*)
- white-throated sparrow (*Zonotrichia albicollis*)
- myrtle warbler (*Setophaga coronata coronata*)
- yellow-rumped warbler (*Dendroica coronata*)
- mallard* (*Anas platyrhynchos*)

Common breeding residents may include the following:

- prothonotary warbler (*Protonotaria citrea*)
- ruby-throated hummingbird (*Archilochus colubris*)
- eastern kingbird (*Tyrannus tyrannus*)
- wood thrush (*Hylocichla mustelina*)

Mammals that could occur within the project study area include the following:

- eastern gray squirrel* (*Sciurus carolinensis*)
- white-tailed deer* (*Odocoileus virginianus*)
- American black bear* (*Ursus americanus*)
- coyote* (*Canis latrans*)
- beaver* (*Castor canadensis*)
- eastern cottontail (*Sylvilagus floridanus*)
- cotton mouse (*Peromyscus gossypinus*)
- raccoon (*Procyon lotor*)
- Virginia opossum (*Didelphis virginiana*)
- groundhog (*Marmota monax*)
- gray fox (*Urcyon cinereoargenteus*)
- striped skunk (*Mephitis mephitis*)
- white-footed mouse (*Peromyscus leucopus*)

Reptiles and amphibians likely to occur within the project study area include the following:

- brown watersnake (*Nerodia taxispilota*)
- rough green snake (*Opheodrys aestivus*)
- rat snake* (*Pantherophis obsoletus*)
- copperhead (*Agkistrodon contortix*)
- eastern fence lizard (*Sceloporus undulatus*)
- American toad* (*Anaxyrus americanus*)

- northern slimy salamander (*Plethodon glutinosus*)
- eastern river cooter (*Pseudemys concinna*)
- eastern mud turtle (*Kinosternon subrubrum*)
- five-lined skink (*Plestiodon fasciatus*)
- green anole* (*Carolina anole*)
- gray treefrog (*Hyla versicolor*)
- upland chorus frog (*Pseudacris feriarum*)
- bullfrog (*Rana catesbeiana*)
- eastern box turtle* (*Terrapene carolina carolina*)
- eastern king snake (*Lampropeltis getula*)
- eastern garter snake (*Thamnophis sirtalis*)

F-4 Aquatic wildlife likely to occur in the project study area

List F-2: Aquatic wildlife likely to occur in the project study area

Reptiles and amphibians include the following:

- brown water snake (*Nerodia taxispilota*)
- snapping turtle* (*Chelydra serpentina*)
- green treefrog (*Hyla cinerea*)
- barking tree frog (*Hyla gratiosa*)
- water moccasin* (*Agkistrodon piscivorus*)
- yellow-bellied slider (*Trachemys scripta scripta*)
- bullfrog
- American alligator (*Alligator mississippiensis*)

Fish and crustaceans include the following:

- bluegill (*Lepomis macrochirus*)
- crayfish* (*Procambarus* spp.)
- largemouth bass (*Micropterus salmoides*)
- striped bass (*Morone saxatilis*)
- American shad (*Alosa sapidissima*)
- white catfish (*Ictalurus catus*)
- American eel (*Anguilla rostrata*)
- channel catfish (*Ictalurus punctatus*)
- blue catfish (*Ictalurus furcatus*)
- crappie (*Pomoxis* spp.)
- mosquitofish* (*Gambusia* spp.)

F-5 Field Meeting Summaries

RECORD OF FIELD MEETING

To: Project File

From: Susan Westberry

Date: May 2, 2012

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Stream and Wetland Modeling Verification and Field Spot Checking

Two meetings were held on Wednesday, April 11, 2012 and Thursday, April 19, 2012 at the project site in Kinston, NC. The meeting began at the District Engineers Office on Hwy 258 at 9:00am. Attendees of the meeting are listed below:

LeiLani Paugh	North Carolina Department of Transportation Natural Environment Section (NCDOT)
Morgan Weatherford	NCDOT
Tom Steffens	United States Army Corp of Engineers (USACE)
David Wainwright	North Carolina Department of Environment and Natural Resources Division of Water Quality (NCDWQ)
Sandy Smith	Axiom Environmental
Susan Westberry	URS

Purpose of Meeting

The purpose of the field meetings was to verify and spot check the accuracy of the wetland model being used by NCDOT to assess wetland impacts for the project.

The intent of the first field meeting was for NCDOT to show the USACE and NCDWQ (agencies) five sites where the wetland model had issues and/or inaccuracies. These sites were chosen by NCDOT as 'problem areas.'

The intent of the second field meeting was to allow the agencies to choose sites that they wanted to visit based on the mapping provided by NCDOT.

General Overview of Meeting #1

The meeting began with discussion about the modeling efforts to date, project mapping, and potential issues NCDOT has seen with the modeling. Mr. Weatherford detailed the modeling methodologies and provided mapping of each of the five sites the group was to visit during the meeting.

The sites chosen included 'fringe' areas where the modeling had potential to be inaccurate. These sites included areas within pine plantations that could be impacted by ditching, sites near agricultural fields containing ditches, and pine flats. Overall, the model was found to be fairly accurate and both the USACE and NCDWQ expressed confidence in the model.

Discussions also included the development of a new model, a 'ditch' model. The intent of the 'ditch' model is to locate areas that have been modeled as wetlands by the wetland model where drainage features have negatively affected the hydrology of the site. The USACE and NCDWQ are both very interested in seeing the results of this model. It was also determined that the 'ditch' model should be referred to as the 'linear drainage model' as it does not determine the jurisdictionality of a feature.

NCDOT has contracted consultants to digitize the linear drainage features within the study area. Once the features have been delineated, NCDOT will develop a model that will adjust the wetland model according to the location of drainage features that may be removing hydrology from the wetlands.

The meeting concluded with NCDOT providing USACE and NCDWQ mapping to assist them in choosing the sites to be visited during the second field meeting. NCDOT expressed that they wish to be transparent with the agencies throughout this process and that they value their input and opinion during the field investigations.

General Overview of Meeting #2

Meeting #2 began with discussions between the agencies and NCDOT regarding the sites that were to be visited. The USACE chose sites that were within the delineated 'riparian' area, adjacent to wetlands, but not modeled as wetlands. There was also a site that was suspect of being candidate for the 'ditch' model that the agencies wished to visit to determine if it should be removed by the ditch model. The intent was to locate sites where NCDOT and the agencies agree that linear drainages are negatively affecting hydrology of wetlands shown by the model in order to spot check the 'ditch' model once it has been completed.

Three sites were visited. NCDOT and the agencies were pleased with what was found at each site. The agencies expressed that the 'ditch' model would be an important component in their confidence with the modeling. No decisions/determinations will be made until the ditch model is complete and more spot checking is accomplished.

The meeting concluded with all agreeing that more field spot checking would be necessary once the ditch model was complete.

Action Items

- NCDOT will continue working on the digitization of the Riparian model. Delineation of riparian zones to be used in NC Wetland Assessment Methodology (NCWAM) wetland classifications could come into play later in the project.
- NCDOT will inform the agencies when the ditch model has been complete. The data will be provided to the agencies once finished so that additional field meetings can be held.
- NCDOT will update mapping/modeling upon the completion of the ditch model.
- Additional field meetings will be needed to spot check the ditch model and address any other concerns the agencies may have.

General Summary

The field exercises provided URS and the agencies with some insight into the accuracy and history of stream and wetland modeling. Model parameters were discussed. The addition of parameters to the ditch model was explored. The utility of such modeling for use in future projects was discussed, as was the agencies' ability to 'sign off' on impacts/alternatives based on such modeling.

Neither agency member is willing to sign off on anything at this point. Both agencies feel the ditch model is going to be an important factor in their decision, and any/all future stream and wetland project decisions.

The ditch model is estimated to be complete sometime during the summer of 2012. Additional field meetings should be anticipated late summer/early fall 2012.

RECORD OF FIELD MEETING

To: Project File

From: Susan Westberry

Date: December 17, 2012

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Sample NRTR Stream and Wetland Verification and Field Spot Checking

A meeting was held on Thursday, November 29, 2012 at the project site in Kinston, NC. The meeting began at the TradeMark/Hess gas station at the corner of US 258 and US 70 in Kinston at 9:30 am. Attendees of the meeting are listed below:

Chris Manley	NCDOT NES
James Mason	NCDOT NES
LeiLani Paugh	NCDOT Natural Environment Section (NES)
Tom Steffens	US Army Corps of Engineers (USACE)
David Wainwright	NC Division of Water Quality (NCDWQ)
Morgan Weatherford	NCDOT NES
Susan Westberry	URS
Travis Wilson	NC Wildlife Resources Commission (NCWRC)

Purpose of Meeting

The purpose of the field meeting was to verify and spot check the accuracy of the stream and wetland models being used by NCDOT to assess wetland impacts for the project – and in particular, to assess the accuracy of the modeled features within the study area for the Sample NRTR. Additionally, the NCWRC used the field meeting as an opportunity to spot check community classifications identified within the C-CAP data.

The intent of the meeting was to give the NCWRC, NCDWQ, and USACE an opportunity to hand choose sites within the Sample NRTR study area that they would like to view (to verify streams, wetlands, and natural communities/potential T&E habitat).

Five sites were chosen and viewed on November 29, 2012.

All agency members were pleased with the field meeting and instructed NCDOT to proceed with the completion of the NRTR for the entire study area based on the discussions held during the November 27, 2012 Sample NRTR review meeting.

Travis Wilson noted that after seeing the communities within the study area that he would like to look further into the C-CAP classifications and their derivations, but that his exercises were for his knowledge only, and should not delay the project in any way.

RECORD OF FIELD MEETING

To: File

From: Susan Westberry

Date: July 3, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
NRTR Threatened and Endangered Species Protocol Verification and Field Spot Checking

A meeting was held on Wednesday, May 22, 2013 at the project site in Kinston, NC. The meeting began at the TradeMark/Hess gas station at the corner of US 258 and US 70 in Kinston at 9:30 am. Attendees of the meeting are listed below:

LeiLani Paugh	NCDOT Natural Environment Section (NES)
Morgan Weatherford	NCDOT NES
Tom Steffens	US Army Corps of Engineers
David Wainwright	NC Division of Water Quality
Gary Jordan	US Fish and Wildlife Service
Travis Wilson	NC Wildlife Resources Commission
Susan Westberry	URS

Purpose of Meeting

The purpose of the field meetings was to verify and spot check the accuracy of the protocol being used to assess the presence of habitat for threatened and endangered species in the NRTR study area. This protocol is being used mainly for the identification of habitat for red-cockaded woodpecker, but similar protocols could be developed for other plant and animal species with particular habitat requirements. The GIS-based protocol proposed within the NRTR for this pilot project utilizes C-CAP landcover data in conjunction with aerial photography to screen for potential habitat sites.

A total of 96 potential habitat sites were identified within the NRTR. These sites were developed using the evergreen forest and scrub/shrub landcover types within the C-CAP data coupled with a size threshold of 30 acres and visual screening against aerial photography. URS performed field spot checking of 28 of the potential sites prior to this meeting.

The intent of the meeting was to take the USFWS and NCWRC to a number of the sites that URS had visited during field spot checks to show the agencies 1. What types of habitat the protocol was producing, 2. The habitat features that URS was using to determine the presence or absence of suitable habitat, and 3. To gain information/guidance/acceptance of the protocol in use.

Five sites were chosen and viewed on May 22, 2013. Two additional sites were also visited at the end of the field meeting that occurred within the radius of the previous record of red-cockaded woodpecker for Lenoir County.

USFWS and NCWRC expressed agreement with the protocol being used to assess community types. Gary Jordan offered further guidance that may help to reduce the number of potential habitat areas identified using the protocol. These discussions are summarized below.

Summary of Guidance

- Could discount the need to search for foraging habitat if we could determine the absence of nesting habitat first.
- Suggested a screening for 60+ year pines. If no old pine stands fall within the ½ mile radius, no foraging assessment would be required.
- If we could determine at the onset that no nesting is present, could make a 'No Effect' determination.
- Foraging habitat needs to be connected to suitable nesting habitat – no more than 200 feet of separation.
- RCW are not bothered by human activity. If nesting and foraging habitat are separated by humans (residence, golf course, etc.), potential for colonies does exist.
- If located within the context of a larger pine-dominated landscape of any age, 30 acres minimum of combined nesting and foraging habitat (only a few potential cavity trees are required) would require field investigation to determine the presence or absence of cavity trees.
- If **not** located within the context of a larger pine-dominated landscape of any age a minimum threshold of 75 acres of combined nesting and foraging habitat would be required to trigger the need for field investigation to determine the presence or absence of cavity trees.
- Areas smaller than 30 acres in total wooded size do not need to be assessed. No habitat.
- In even-aged stands, the entire stand can be discounted based on size/age determination. No nesting/cavity searches are needed if it is known the stand is even-aged.

Mr. Jordan stressed that the guidance given during the May 22, 2013 field meeting is guidance applicable to RCW habitat assessments for Lenoir County, and this project in particular. He stated that different protocol would be appropriate for different projects in different parts of the state. This is due to new findings related to RCW and habitat variability in Outer Banks and southeastern counties.

SUMMARY OF FIELD INVESTIGATIONS AND ACTIVITY

URS

To: File

From: Susan Westberry

Date: July 3, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Summary of Field Investigations and Activity Since May 22, 2013 T&E Spot Checks

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Foot surveys for rough-leaved loosestrife were conducted on June 5, 2013. These surveys were conducted within the field/forested edge regions of Leon and Torhunta soils within Craven County identified within the Draft NRTR. No rough-leaved loosestrife plants were identified. The biological conclusion for this species can be changed to **No Effect** within the NRTR.

Thirty additional RCW habitat sites were also spot checked on June 5, 2013. An attempt was made to visit sites 51-70 and 72-81. Eleven of the sites were not accessible due to gated plantation roads. In general, the majority of the sites in the east (Craven and Jones counties) appear to be Weyerhauser property. Many of these are contained within extensive Weyerhauser logging roads. If any of these areas require further investigation in the future, an attempt should be made to obtain keys for these gates.

Sites 68, 69, and 70 should be surveyed for cavity trees if they fall within the range of the LEDPA. These three sites appear to be timber plantation and are also part of the land used by Dover Mosley Creek Hunting Club. These three sites support potential nesting habitat and are contiguous to hundreds of acres of younger plantation.

As a result of the May 22, 2013 field meeting, the District Ranger for the Kinston Area of the NC Forest Service was contacted to obtain timber stand age information. Rhonda Huttlinger was provided with several of the sites visited during the first round of spot checks for RCW habitat. It appears that the NC Forest Service maintains data on privately owned timber plantations, but does not keep data on larger plantations (Weyerhauser properties).

Data provided by the NC Forest Service indicates that our estimations of stand age in the field on May 22 were over-estimates in almost all cases. Site 10 – potential foraging habitat was aged in the field to be 40-50 years. Plantation data show the stand is 25 years old.

Site 17 – field notes indicate that the trees were large enough for cavities but the stand was exceedingly thick. Plantation data show the stand is 24-25 years old.

Site 21 – roadside stand next to golf course neighborhood with large potential cavity trees across the road. Plantation data show 22-23 years old.

An attempt will be made to contact Weyerhauser to obtain timber stand age data for the NRTR study area – particularly sites 68-70.

RECORD OF FIELD MEETING

To: File

From: Susan Westberry

Date: November 7, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Remote Wetland Quality Assessment Methodology Field Verifications

A meeting was held on Wednesday, October 23, 2013 at the project site in Kinston, NC. The meeting began at the TradeMark/Hess gas station at the corner of US 258 and US 70 in Kinston at 9:00 am. Attendees of the meeting are listed below:

LeiLani Paugh	NCDOT Natural Environment Section (NES)
Morgan Weatherford	NCDOT NES
David Johnson	NCDOT NES
Tom Steffens	US Army Corps of Engineers
Gary Jordan	US Fish and Wildlife Service
Travis Wilson	NC Wildlife Resources Commission
Susan Westberry	URS

Purpose of Meeting

The purpose of the field meeting was to verify the accuracy of the methodologies developed by NCDOT to remotely assess wetland quality for hydraulic crossings on the project. The methodology is intended to aid in decision making on hydraulic crossings during CP2A. NCDOT developed a form/checklist to evaluate each crossing. The checklist documents wetland stressors and attributes identifiable with GIS data layers. If no stressors or other attributes can be identified to negatively impact wetland quality, the wetland is assumed to be high quality (see form attached).

David Johnson of NCDOT identified five sites to visit during the field meeting (#s 132, 48, 110, 150, and 118). Each of the five sites were different in size and potential stressors. A summary of the discussion at each of the five sites and a general summary of discussions is included below.

Summary of Discussion

- Travis Wilson warned that 'typical' CP2A decisions would not be possible with this limited data. He does not feel comfortable committing to bridge sizes or culvert sized 100% based solely on GIS data.
- It was suggested that crossings could be 'categorized' into broad types.
- Mr. Wilson suggested final length and size decisions be pushed to CP4A.
- Agencies want to be sure that expectations of the types and finality of decisions made at CP2A are understood – agencies want to reserve the right to change their sizing decisions when field verified data are made available (after LEDPA field studies).
- Agencies feel confident that the 'obvious' crossings could be committed to. Definite bridges and areas where minimum hydraulic will be sufficient.
- There will likely be a population of sites left over that will need revisiting once a LEDPA has been chosen.
- These data would be sufficient to make alternative decisions.

- There is concern that stream quality assessments have not been done – only wetlands. For crossings where it is stream only and not wetland, there is no assessment.
- Agencies want reassurance that if poor decisions are made at CP2A, changes can be made at CP4A.
- NCDOT stressed that new information allows for changes to be made to merger decisions and that stream and wetland delineations would constitute new information and allow for changes.
- Travis Wilson would like to push structure decisions until after LEDPA.
- **Agencies request to have more than two weeks lead time with CP2A package.**

Summary of Crossing Sites

#132

'Stressed' crossing. Crossing itself does not require large hydraulic opening, but the riparian structure and floodplain width dictate otherwise. This site is an example of where the decision would likely be different desktop vs. field visit. The width and quality of the wetland and floodplain is not obvious from data.

#48

Triple box culvert now and proposed. Travis Wilson requested that these types of data be provided at CP2A (list of existing and proposed structures).

#110

Existing bridge. This would be a crossing where a decision could be made.

#150

Site had stressors in all three categories. Travis Wilson agreed with culvert call on this location on the ground – not sure if he would be as positive in the office.

A discussion ensued about farm fields having both positive and negative effects from a wildlife perspective – dependent upon surrounding landscape.

#118

A single 6' x 6' proposed for this location. Not sufficient. See photo. Agencies asked how watersheds are being calculated. In this instance, this would be undersized.

Next Steps

- NCDOT to develop 'categories' for lumping of crossing types (for example, bridge, single box, minimum hydraulic, etc.).
- A trial run of sites will be completed prior to CP2A to be sure that 'categories' are sufficient.
- An office meeting to lump sites will be done (similar to what would be done at CP2A).
- A field meeting to each site would occur to verify accuracy of grouping methodology.

Assessor Name:_____ Crossing No:_____

Remote Wetland Quality Assessment Form for Major Stream Crossings

Usage Guidance:

This form seeks to document wetland stressors and attributes identifiable with GIS data layers. If no stressors or other attributes can be identified to negatively impact wetland quality, we will assume the wetland is of high quality.

Terminology, thresholds and criteria are based on definitions provided in NCWAM manual version 4.1.

Potential wetland types for this exercise are assumed to be limited to Bottomland Hardwood, Riverine Swamp Forest, Headwater Forest and Non-Tidal Freshwater marsh.

Wetland type boundaries cannot generally be distinguished with this approach and answers to the questions may be applied to the wetland complex instead.

The following GIS data layers must be acquired to assess the wetlands with this method:

- 2010 Statewide and 2012 Orthoimagery (if available)
- NCDOT Wetland Prediction Model raster
- NLCS SSURGO soils layer
- 2006 National Land Cover Database raster
- USGS 24K hydrography layer
- NCDOT Lateral Effect GIS Model drainage feature layer
- NCDWQ 303D stream layer
- NCNHP Elemental Occurrence layer
- NPDES Point Source layer
- NCDMF Anadromous Fish layer
- NCDMF Fish Nursery Area layer
- NCDENR Animal Feeding Operation Permits layer
- Other layers that may identify the site as federally or state-owned or conservation area

Consider the three major functions of wetlands according to NCWAM and identify the stressors/attributes that may affect those functions.

Hydrologic Function

1) Is there any evidence the vegetation is severely altered?

   ☐Yes ☐No

2) Is there any evidence of extensive ditching or fill?

   ☐Yes ☐No

3) Is there any evidence of long duration inundation or saturation?

☐Yes ☐No

4) Is there any evidence the over-land or over-bank flow is severely altered?

☐Yes ☐No

Notes:_____

_____

_____

Water Quality Function

1) Record the total lateral width of wetland in feet: _____

(include width from both sides of stream, if applicable)

2) Record the estimated width of the actual channel in feet: _____

3) Based on canopy coverage, do the roots of the vegetation appear to extend into the bank of the tributary?

☐Yes ☐No

Notes:_____

_____

_____

Habitat Function

1) Record the estimated size of the wetland in acres: _____

2) Is the wetland well connected to ≥100 acres *or* loosely connected to ≥ 500 acres of landscape patch?

☐Yes ☐No

3) Is there an artificial edge within 150 feet in four or more directions *or* is the wetland clear-cut?

☐Yes ☐No

Notes:_____

_____

_____

Opportunity-Watershed Landuse

Execute NCDOT's Watershed Landuse Calculator tool which provides a report that answers NCWAM question 6. The report should be pasted below and used to interpret the wetland's opportunity to improve water quality in the wetland assessment report.

Notes:_____

SUMMARY OF T&E DETERMINATIONS

To: File

From: Susan Westberry

Date: November 19, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Summary of T&E Determinations

A summary of field investigations and activities pertaining to T&E investigations for the R-2553 Kinston Bypass project was distributed on June 12, 2013. A Section 404/NEPA Interagency Merger Process Team Informational Meeting was held on June 13, 2013. During the Informational Meeting, T&E investigations and summaries were discussed with the team. One of the conclusions made during field investigations and site visits with the USACE, NCDWR, USFWS, and NCWRC was that screening for pines younger than 60 years of age may be necessary within the project area due to the larger size of some of the younger-aged pine stands. It was preliminarily suggested that screening would be needed for pines in the 30-40 year age range. URS and NCDOT recommended dropping the age of stands from 60 years to 30 to 40 years for identifying potential RCW nesting areas.

In an email dated June 20, 2013, Gary Jordan of USFWS advised that upon further investigation, RCW will not nest in trees younger than 60 years of age regardless of their diameter. RCW require thick heartwood in which to nest. Heartwood is thin in young trees and increases in width as trees age. In younger trees, the sapwood is too thick for RCW to nest. If it can be determined that there is no nesting habitat within the survey area, there is no need to search for foraging habitat.

Based upon Mr. Jordan's statements above, it was determined that further field spot checks and/or investigations may not be needed if forest stand age could be determined based on either aerial photography or landowner information. URS had been in touch with Rhonda Huttlinger, the District Ranger with NC Forest Service (rhonda.huttlinger@ncagr.gov; 252-520-2400). Ms. Huttlinger was able to provide stand age for some tracts visited during spot checks where the team (USACE, NCDWR, USFWS, NCWRC, NCDOT, and URS) felt that trees would be sufficiently large enough for nesting. Information provided by Ms. Huttlinger verified that these stands were all within the 20-30 year age range. Further field spot checks performed by URS located several stands in the southern and eastern portion of the study area with trees that appeared to be sufficiently large for nesting. Most of the timber land in the southern and eastern portions of the study area is owned by the Weyerhaueser Paper Company.

URS contacted Jessica Homyack, the Southern Wildlife Program Leader with Weyerhaueser on November 7, 2013 (jessica.homyack@weyerhaueser.com; 252-633-7525). Ms. Homyack was not able to issue specific stand information due to their confidentiality policies, but was able to provide the following statements pertaining to RCW on their lands in Lenoir, Jones, and Craven counties:

- There are no records of RCW within any of their timber stands.
- Typical rotation lengths for their stands are between 20 and 30 years.
- They do have some 'natural' stands which get to be 50 or 60 years old, but they are not maintained and are often a dense mixture of pine and hardwood species.
- They provide some known foraging habitat adjacent to the Croatan National Forest, but that is the only RCW in the vicinity of any of their lands that they are aware of.

- Weyerhaueser contractors are trained to look for signs of RCW in all of their stands prior to harvesting; Ms. Homyack is consulted if RCW are suspected.

Based on URS' previous investigations and the forest size and structure that has been observed within the study area coupled with the information that Ms. Huttlinger and Ms. Homyack have provided, URS has concluded that T&E investigations for RCW habitat can be concluded at this time. The largest trees observed have been within stands that were less than 30 years old (as verified by Ms. Huttlinger and Ms. Homyack). URS has determined there is no potential nesting habitat within the study area and, therefore, no need to search for foraging habitat. In an email dated November 15, 2013, NCDOT agreed with URS' conclusion.

Once a LEDPA has been selected, URS/NCDOT should request specific stand information from both the NC Forest Service and Weyerhaueser to confirm that conditions have not changed. The Biological Conclusion for RCW will be left 'unresolved' until a LEDPA has been chosen.

F-6 Stream and Wetland Model Development & Metadata

DWR Lenoir Model (Streams)

Two ArcGIS models were used in order to assess potential stream and wetland impacts for the project. A jurisdictional stream model was created by the North Carolina Division of Water Resources (NCDWR) and a jurisdictional wetland model was created by NCDOT.

The jurisdictional stream analysis was completed by NCDWR for this pilot project. The data generated for the project consisted of stream lines within the three US Environmental Protection Agency (USEPA) Level IV ecoregions that were present in the larger project study area for the entire project. The ecoregions present were Rolling Coastal Plain (RCP), Carolina Flatwoods (CF) and Southeastern Floodplains and Terraces (SEFT). Jurisdictional stream models were developed for the RCP and CF ecoregions by utilizing 20-foot grid cell digital elevation models (DEM) generated from bare-earth Light Detection and Ranging (LIDAR) data and subsequent terrain derivatives and other ancillary data as variables. The models were developed in SAS 9.2 as binary logistic regression models. The National Hydrography Dataset (NHD) flowlines were used for SEFT in lieu of a model due to the streams in this ecoregion being heavily manipulated by channelization (ditching) and impractical to model accurately. NHD is similar to USGS 24k hydrolines, but does not include 'double line' streams and polygons that appear in USGS 24k line. All procedures used to collect stream data for the three ecoregions are collectively referred to as the 'DWR Lenoir Model.'

The outputted data from the most recent version of the DWR Lenoir Model (January 29, 2013) was clipped to the NRTR study area to determine which streams are located within the NRTR study area, and clipped again to each alternative's slope stake limits plus 40 feet to estimate which streams might be impacted by each alternative. Named streams were labeled (S1, S2, S3, etc.) in numerical order according to watershed moving from west to east across the NRTR study area.

Streams subject to the Neuse River Buffer Rules were identified based solely on their presence on 24k USGS topographic mapping. For the purposes of this document, streams absent from the topographic mapping were not considered to be subject to buffer rules. NRCS soils mapping was not consulted for buffer applicability at this time.

Wetland Prediction Model

Wetland data were derived from a wetland prediction model completed by NCDOT Natural Environment Section (NES) for this pilot project (April 15, 2011). The layer depicts wetlands of Lenoir County and portions of Jones and Craven Counties. Similar to the DWR Lenoir Model, the model utilizes 20-foot grid cell DEMs generated from bare-earth LIDAR data and subsequent terrain derivatives and other ancillary data as variables. The model was developed in SAS 9.2 as a binary logistic regression model. An updated set of models was developed using the next generation LiDAR data that was in the process of being acquired statewide. The purpose of these models, referred to as the 2017 QL2 models, were requested by the resource agencies to study the effects of using the next generation LiDAR in the models as compared to the legacy LiDAR data in the original 2011 models. For more information on the accuracy comparison of these models, please refer to the memo titled "Revised Supplement to NCDOT's Wetland Predictive Model Accuracy Assessment" dated September 14, 2017.

The wetland model used for this project is an aggregate of five different models based on ecoregion (listed below). Each model applies to one of the discrete areas for which it was

developed. The ecoregion boundaries were edited based on terrain data to improve the accuracy, which in turn, improved the model accuracy for each respective region. The applications of riparian and non-riparian within each of the ecoregion models were based on a riparian shapefile that NCDOT digitized based on terrain data and aerial photography. The resulting models included: Non-Riparian Rolling Coastal Plain Wetland, Riparian Rolling Coastal Plain Wetland, Non-Riparian Flatwood Wetland, Riparian Flatwood Wetland, and Southeastern Floodplains and Low Terraces Wetland. These data were also verified through multiple field surveys with the resource agencies. Field verifications of the wetland model took place on March 22, April 11, April 19, and June 7, 2012. Tom Steffens of US Army Corps of Engineers (USACE) and David Wainwright of NCDWR were in attendance, along with Leilani Paugh and Morgan Weatherford of NCDOT, Sandy Smith of Axiom, and Susan Westberry of URS.

The wetland model resulted in a wetland prediction raster file. The original raster file was converted to a polygon layer in order to assess potential wetland impacts of the project. First, the raster file was converted to an integer file such that geoprocessing could occur. Next, the Raster to Polygon tool was used to convert the integer raster to a single polygon layer (that included the five different wetland types listed above). The resulting polygon layer was then clipped to the NRTR study area to determine the acreage of each wetland type located within the NRTR study area, and clipped again to the slope stake limits plus 40 feet to determine the acreage of each wetland type located within each alternative.

North Carolina Department of Environment and Natural Resources
Division of Water Quality

Pat McCrory
Governor

Charles Wakild, P. E.
Director

John E. Skvarla, III
Secretary

January 29, 2013

To: Leilani Paugh, NCDOT Natural Environment Unit

From: Periann Russell, NCDWQ Transportation Permitting Unit

Subject: Delivery of Updated Final Stream Map for Kinston Bypass Study Area

For the last several months DWQ has been working to improve the Carolina Flatwoods headwater stream model. We have improved the consistency and accuracy for this ecoregion by recalibrating the model, reducing the number of variables in the model and removing known ditchlines from the model streamlines; please see the updated table below.

The attached shape file includes the stream map created by DWQ for the Kinston bypass study area. The map consists of stream lines for five EPA Level IV ecoregions; they are Rolling Coastal Plain (RCP), Carolina Flatwoods (CF), Mid-Atlantic Floodplains and Low Terraces (MAFLT), Southeastern Floodplains and Terraces (SEFT) and Swamps and Peatlands (no streams in this ecoregion). As previously discussed, United States Geological Survey (USGS) stream lines were used for SEFT stream lines. The National Hydrography Dataset (NHD) flowlines were applied to this ecoregion and provide more flexible and complete stream line data than USGS 24k hydrolines. NHD is similar to USGS 24,000 hydrolines, but does not include "double line" streams and polygons that appear in USGS 24k lines. NHD flowlines are also attributed with descriptive data that may be useful in calculating stream impact lengths.

1617 Mail Service Center, Raleigh, North Carolina 27699-1617
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6300 \ FAX: 919-807-6492
Internet: www.ncwaterquality.org

Map Description

The study area stream map includes an attribute table with the fields listed in Table 1. The use of NHD flowlines in SEFT resulted in some inconsistency of stream line continuation and alignment across ecoregion boundaries, e.g., a modeled stream may be present in the RCP but not continue into the SEFT, or the stream may be present on both maps, not in alignment. Since DWQ has a higher confidence in the modeled streams and the LiDAR-derived topography than in the NHD flowlines, these few inconsistencies were not edited across boundaries. Additionally, stream lines may stop or start at ecoregion boundaries due to DEM shifts in the original data layers delivered by Michael Baker Corp. The DEM shift issue was discovered during this project and has been resolved for future mapping projects.

Table 1: Attribute Table Definitions

Field	Description	Values
Grid Code	stream	1 – is a stream
Source	Source of stream line	M-RCP/CF Model F-Field Determined NHDFType558-Artifical Path (center line of stream) NHDFType460-Stream/River NHDFtype336-Canal/Ditch
Ecoregion	EPA Level IV ecoregion	63h-Carolina Flatwoods 65m-Rolling Coastal Plain 65p-Southeastern Floodplains and Terraces 65n-Mid-Atlantic Floodplains and Low Terraces
Field date	Date Field data collected	
Length	Length of stream segment in feet	

Headwater Stream Model Accuracy

General observations and field verification of the modeled streams indicate that in most areas overestimation of stream length occurs due to pronounced ditching in valleys and in wetlands that occur in pronounced, narrow valleys. Overestimation is also associated with low elevation roads that were misclassified as streams (Figures 1, 2 and 3) and extension of streams into ponds and lakes.

Errors associated with ditches, wetlands, roads and ponds were removed using known field data, 2010 aerial photos, DOT roads, and USGS 24K hydro polygons. Many of the ponds shown on the 24k polygon file do not exist on the ground, so all final decision to remove were made based on the 2010 aerial photos. Accuracies of the model vs. field stream length are listed in Table 2. For comparison, the accuracies of USGS stream length vs. field stream length are included as well.

Table 2: Headwater Stream Model Accuracy

	Site	Field Stream Length (ft)	Model Stream Length (ft)	Model Length Accuracy	USGS Stream Length (ft)	USGS Length Accuracy
RCP	LCB	20770	24657	119%	30241	146%
	LCC	23348	28320	121%	42423	182%
	LCD	50850	59728	117%	47094	93%
Total RCP		94968	112705	119%	119758	126%
CF						
	On02	2252	2105	93%	5758	256%
	Le02	9581	9071	95%	10234	107%
	Co02	9481	8879	94%	8825	93%
Total CF		21314	20055	94%	24817	116%
Total Study Area		116282	132760	114%	144575	124%

Please call or email if you have any questions. I can be reached by phone at 919.807.6478 or email at periann.russell@ncdenr.gov.

cc: Cheryl Gregory (DWQ-TPU)
Morgan Weatherford (NCDOT-NEU)

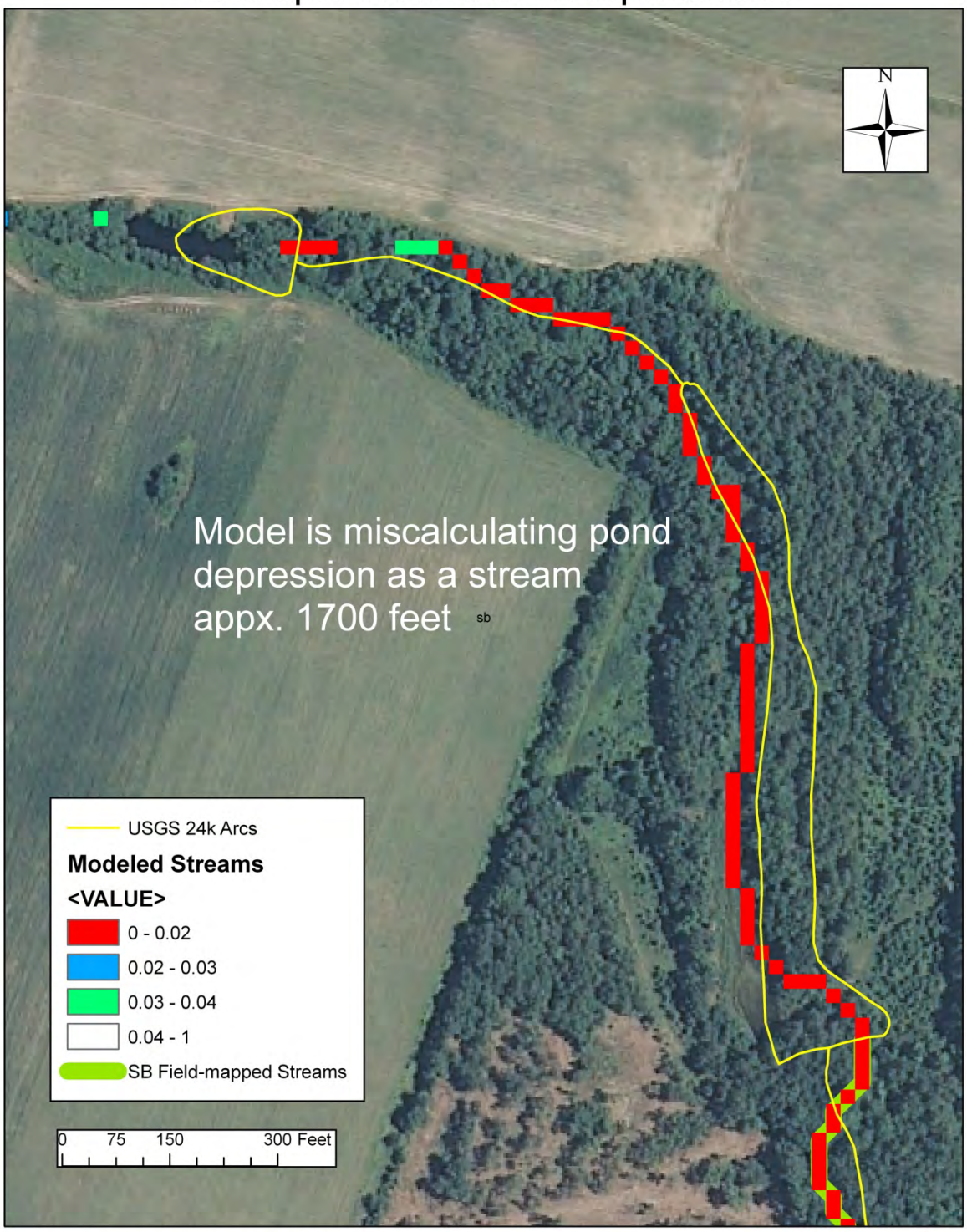
Carolina Flatwoods Headwater Stream Model
Example of Area of Overprediction
N
Model is miscalculating pond depression as a stream appx. 1700 feet
sb
USGS 24k Arcs
Modeled Streams
<VALUE>
0 - 0.02
0.02 - 0.03
0.03 - 0.04
0.04 - 1
SB Field-mapped Streams
0 75 150 300 Feet

Figure 1

Carolina Flatwoods Headwater Stream Model
Example of Area of Overprediction (2)

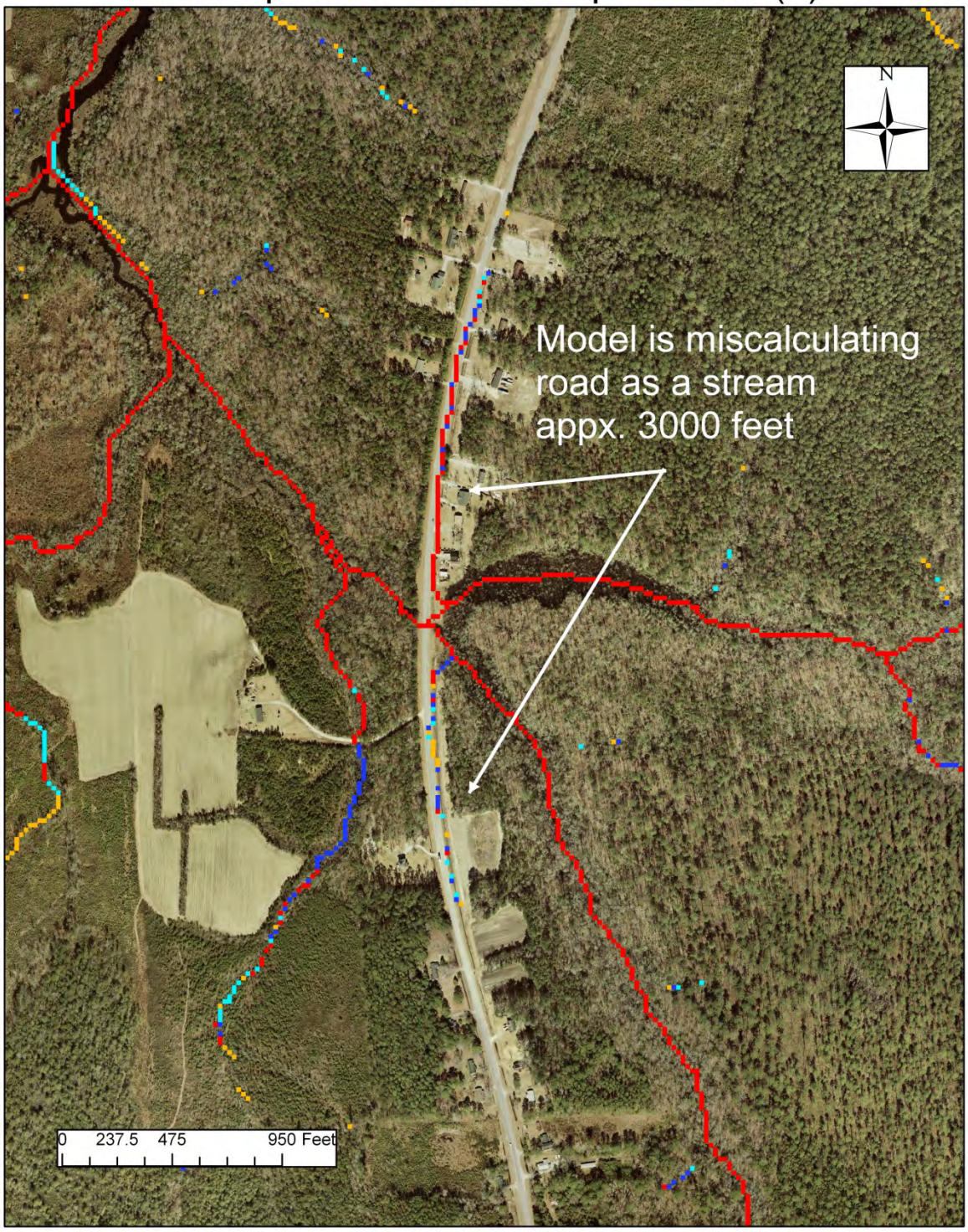

Figure 2

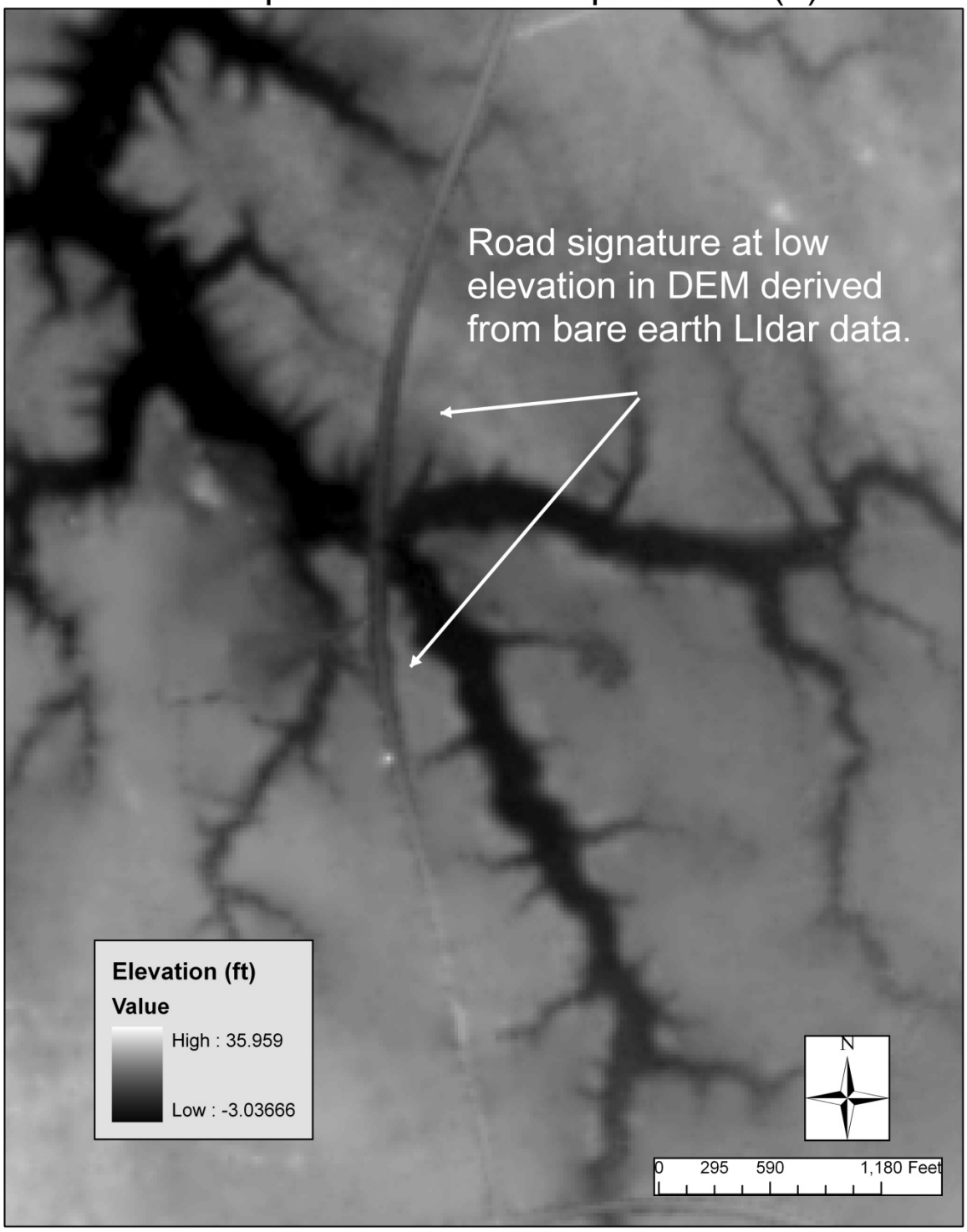
Carolina Flatwoods Headwater Stream Model
Example of Area of Overprediction (2)
Road signature at low elevation in DEM derived from bare earth LIdar data.
Elevation (ft)
Value
High : 35.959
Low : -3.03666
N
0 295 590 1,180 Feet

Figure 3

RollingCP_Riparian

Shapefile

Description | Spatial | Attributes

Keywords

Theme: Wetlands

Place: Lenoir County

Description

Abstract

This layer depicts wetlands of Lenoir County and portions of Jones and Craven Counties. These wetland locations were generated by the North Carolina Dept. of Transportation wetland prediction model. The model utilizes 20' grid cell digital elevation models generated from bare-earth LiDAR data and subsequent terrain derivatives as variables. The model may also use Southeast GAP land cover data, NOAA C-CAP land cover data, NC Division of Coastal Managment NC CREWS data and NRCS SSURGO soils data as variables. The model is developed in SAS 9.2 as a binary logistic regression model.

Purpose

These wetland locations were created as part of the Lenoir County GIS pilot project initiated and funded by NCDOT.

Status of the data

Complete

Data update frequency: As needed

Time period for which the data is relevant

Date and time: REQUIRED: The year (and optionally month, or month and day) for which the data set corresponds to the ground.

Description:

publication date

Publication Information

Who created the data: NCDOT- Natural Environment Unit - Indirect and Cumulative Impacts Group

Date and time: 4/15/2011

Data storage and access information

File name: RollingCP_Riparian

Type of data: vector digital data

Data processing environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 3; ESRI ArcCatalog 9.3.1.4000

Accessing the data

Size of the data: 78.970 MB

Data transfer size: 78.970 MB

Constraints on accessing and using the data

Access constraints: None

Use constraints:

These wetland locations are for planning purposes only and do not consistently represent the delineated boundaries as defined by the 1987 US Army Corps of Engineers Wetland Delineation Manual of the wetlands contained herein. Specific locations should be verified if any actions to be taken in proximity of these locations. The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

Details about this document

Contents last updated: 20110815 at time 15425400

Who completed this document

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Standards used to create this document

Standard name: FGDC Content Standards for Digital Geospatial Metadata

Standard version: FGDC-STD-001-1998

Time convention used in this document: local time

Metadata profiles defining additonal information

- ESRI Metadata Profile: http://www.esri.com/metadata/esriprof80.html

Appendix E: Records of Field Meetings and Protected Species Determinations

RECORD OF FIELD MEETING

To: Project File

From: Susan Westberry

Date: May 2, 2012

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Stream and Wetland Modeling Verification and Field Spot Checking

Two meetings were held on Wednesday, April 11, 2012 and Thursday, April 19, 2012 at the project site in Kinston, NC. The meeting began at the District Engineers Office on Hwy 258 at 9:00am. Attendees of the meeting are listed below:

LeiLani Paugh	North Carolina Department of Transportation Natural Environment Section (NCDOT)
Morgan Weatherford	NCDOT
Tom Steffens	United States Army Corp of Engineers (USACE)
David Wainwright	North Carolina Department of Environment and Natural Resources Division of Water Quality (NCDWQ)
Sandy Smith	Axiom Environmental
Susan Westberry	URS

Purpose of Meeting

The purpose of the field meetings was to verify and spot check the accuracy of the wetland model being used by NCDOT to assess wetland impacts for the project.

The intent of the first field meeting was for NCDOT to show the USACE and NCDWQ (agencies) five sites where the wetland model had issues and/or inaccuracies. These sites were chosen by NCDOT as 'problem areas.'

The intent of the second field meeting was to allow the agencies to choose sites that they wanted to visit based on the mapping provided by NCDOT.

General Overview of Meeting #1

The meeting began with discussion about the modeling efforts to date, project mapping, and potential issues NCDOT has seen with the modeling. Mr. Weatherford detailed the modeling methodologies and provided mapping of each of the five sites the group was to visit during the meeting.

The sites chosen included 'fringe' areas where the modeling had potential to be inaccurate. These sites included areas within pine plantations that could be impacted by ditching, sites near agricultural fields containing ditches, and pine flats. Overall, the model was found to be fairly accurate and both the USACE and NCDWQ expressed confidence in the model.

Discussions also included the development of a new model, a 'ditch' model. The intent of the 'ditch' model is to locate areas that have been modeled as wetlands by the wetland model where drainage features have negatively affected the hydrology of the site. The USACE and NCDWQ are both very interested in seeing the results of this model. It was also determined that the 'ditch' model should be referred to as the 'linear drainage model' as it does not determine the jurisdictionality of a feature.

NCDOT has contracted consultants to digitize the linear drainage features within the study area. Once the features have been delineated, NCDOT will develop a model that will adjust the wetland model according to the location of drainage features that may be removing hydrology from the wetlands.

The meeting concluded with NCDOT providing USACE and NCDWQ mapping to assist them in choosing the sites to be visited during the second field meeting. NCDOT expressed that they wish to be transparent with the agencies throughout this process and that they value their input and opinion during the field investigations.

General Overview of Meeting #2

Meeting #2 began with discussions between the agencies and NCDOT regarding the sites that were to be visited. The USACE chose sites that were within the delineated 'riparian' area, adjacent to wetlands, but not modeled as wetlands. There was also a site that was suspect of being candidate for the 'ditch' model that the agencies wished to visit to determine if it should be removed by the ditch model. The intent was to locate sites where NCDOT and the agencies agree that linear drainages are negatively affecting hydrology of wetlands shown by the model in order to spot check the 'ditch' model once it has been completed.

Three sites were visited. NCDOT and the agencies were pleased with what was found at each site. The agencies expressed that the 'ditch' model would be an important component in their confidence with the modeling. No decisions/determinations will be made until the ditch model is complete and more spot checking is accomplished.

The meeting concluded with all agreeing that more field spot checking would be necessary once the ditch model was complete.

Action Items

- NCDOT will continue working on the digitization of the Riparian model. Delineation of riparian zones to be used in NC Wetland Assessment Methodology (NCWAM) wetland classifications could come into play later in the project.
- NCDOT will inform the agencies when the ditch model has been complete. The data will be provided to the agencies once finished so that additional field meetings can be held.
- NCDOT will update mapping/modeling upon the completion of the ditch model.
- Additional field meetings will be needed to spot check the ditch model and address any other concerns the agencies may have.

General Summary

The field exercises provided URS and the agencies with some insight into the accuracy and history of stream and wetland modeling. Model parameters were discussed. The addition of parameters to the ditch model was explored. The utility of such modeling for use in future projects was discussed, as was the agencies' ability to 'sign off' on impacts/alternatives based on such modeling.

Neither agency member is willing to sign off on anything at this point. Both agencies feel the ditch model is going to be an important factor in their decision, and any/all future stream and wetland project decisions.

The ditch model is estimated to be complete sometime during the summer of 2012. Additional field meetings should be anticipated late summer/early fall 2012.

RECORD OF FIELD MEETING

To: Project File

From: Susan Westberry

Date: December 17, 2012

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Sample NRTR Stream and Wetland Verification and Field Spot Checking

A meeting was held on Thursday, November 29, 2012 at the project site in Kinston, NC. The meeting began at the TradeMark/Hess gas station at the corner of US 258 and US 70 in Kinston at 9:30 am. Attendees of the meeting are listed below:

Chris Manley	NCDOT NES
James Mason	NCDOT NES
LeiLani Paugh	NCDOT Natural Environment Section (NES)
Tom Steffens	US Army Corps of Engineers (USACE)
David Wainwright	NC Division of Water Quality (NCDWQ)
Morgan Weatherford	NCDOT NES
Susan Westberry	URS
Travis Wilson	NC Wildlife Resources Commission (NCWRC)

Purpose of Meeting

The purpose of the field meeting was to verify and spot check the accuracy of the stream and wetland models being used by NCDOT to assess wetland impacts for the project – and in particular, to assess the accuracy of the modeled features within the study area for the Sample NRTR. Additionally, the NCWRC used the field meeting as an opportunity to spot check community classifications identified within the C-CAP data.

The intent of the meeting was to give the NCWRC, NCDWQ, and USACE an opportunity to hand choose sites within the Sample NRTR study area that they would like to view (to verify streams, wetlands, and natural communities/potential T&E habitat).

Five sites were chosen and viewed on November 29, 2012.

All agency members were pleased with the field meeting and instructed NCDOT to proceed with the completion of the NRTR for the entire study area based on the discussions held during the November 27, 2012 Sample NRTR review meeting.

Travis Wilson noted that after seeing the communities within the study area that he would like to look further into the C-CAP classifications and their derivations, but that his exercises were for his knowledge only, and should not delay the project in any way.

RECORD OF FIELD MEETING

To: File

From: Susan Westberry

Date: July 3, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
NRTR Threatened and Endangered Species Protocol Verification and Field Spot Checking

A meeting was held on Wednesday, May 22, 2013 at the project site in Kinston, NC. The meeting began at the TradeMark/Hess gas station at the corner of US 258 and US 70 in Kinston at 9:30 am. Attendees of the meeting are listed below:

LeiLani Paugh	NCDOT Natural Environment Section (NES)
Morgan Weatherford	NCDOT NES
Tom Steffens	US Army Corps of Engineers
David Wainwright	NC Division of Water Quality
Gary Jordan	US Fish and Wildlife Service
Travis Wilson	NC Wildlife Resources Commission
Susan Westberry	URS

Purpose of Meeting

The purpose of the field meetings was to verify and spot check the accuracy of the protocol being used to assess the presence of habitat for threatened and endangered species in the NRTR study area. This protocol is being used mainly for the identification of habitat for red-cockaded woodpecker, but similar protocols could be developed for other plant and animal species with particular habitat requirements. The GIS-based protocol proposed within the NRTR for this pilot project utilizes C-CAP landcover data in conjunction with aerial photography to screen for potential habitat sites.

A total of 96 potential habitat sites were identified within the NRTR. These sites were developed using the evergreen forest and scrub/shrub landcover types within the C-CAP data coupled with a size threshold of 30 acres and visual screening against aerial photography. URS performed field spot checking of 28 of the potential sites prior to this meeting.

The intent of the meeting was to take the USFWS and NCWRC to a number of the sites that URS had visited during field spot checks to show the agencies 1. What types of habitat the protocol was producing, 2. The habitat features that URS was using to determine the presence or absence of suitable habitat, and 3. To gain information/guidance/acceptance of the protocol in use.

Five sites were chosen and viewed on May 22, 2013. Two additional sites were also visited at the end of the field meeting that occurred within the radius of the previous record of red-cockaded woodpecker for Lenoir County.

USFWS and NCWRC expressed agreement with the protocol being used to assess community types. Gary Jordan offered further guidance that may help to reduce the number of potential habitat areas identified using the protocol. These discussions are summarized below.

Summary of Guidance

- Could discount the need to search for foraging habitat if we could determine the absence of nesting habitat first.
- Suggested a screening for 60+ year pines. If no old pine stands fall within the ½ mile radius, no foraging assessment would be required.
- If we could determine at the onset that no nesting is present, could make a 'No Effect' determination.
- Foraging habitat needs to be connected to suitable nesting habitat – no more than 200 feet of separation.
- RCW are not bothered by human activity. If nesting and foraging habitat are separated by humans (residence, golf course, etc.), potential for colonies does exist.
- If located within the context of a larger pine-dominated landscape of any age, 30 acres minimum of combined nesting and foraging habitat (only a few potential cavity trees are required) would require field investigation to determine the presence or absence of cavity trees.
- If **not** located within the context of a larger pine-dominated landscape of any age a minimum threshold of 75 acres of combined nesting and foraging habitat would be required to trigger the need for field investigation to determine the presence or absence of cavity trees.
- Areas smaller than 30 acres in total wooded size do not need to be assessed. No habitat.
- In even-aged stands, the entire stand can be discounted based on size/age determination. No nesting/cavity searches are needed if it is known the stand is even-aged.

Mr. Jordan stressed that the guidance given during the May 22, 2013 field meeting is guidance applicable to RCW habitat assessments for Lenoir County, and this project in particular. He stated that different protocol would be appropriate for different projects in different parts of the state. This is due to new findings related to RCW and habitat variability in Outer Banks and southeastern counties.

SUMMARY OF FIELD INVESTIGATIONS AND ACTIVITY

URS

To: File

From: Susan Westberry

Date: July 3, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Summary of Field Investigations and Activity Since May 22, 2013 T&E Spot Checks

---

Foot surveys for rough-leaved loosestrife were conducted on June 5, 2013. These surveys were conducted within the field/forested edge regions of Leon and Torhunta soils within Craven County identified within the Draft NRTR. No rough-leaved loosestrife plants were identified. The biological conclusion for this species can be changed to **No Effect** within the NRTR.

Thirty additional RCW habitat sites were also spot checked on June 5, 2013. An attempt was made to visit sites 51-70 and 72-81. Eleven of the sites were not accessible due to gated plantation roads. In general, the majority of the sites in the east (Craven and Jones counties) appear to be Weyerhauser property. Many of these are contained within extensive Weyerhauser logging roads. If any of these areas require further investigation in the future, an attempt should be made to obtain keys for these gates.

Sites 68, 69, and 70 should be surveyed for cavity trees if they fall within the range of the LEDPA. These three sites appear to be timber plantation and are also part of the land used by Dover Mosley Creek Hunting Club. These three sites support potential nesting habitat and are contiguous to hundreds of acres of younger plantation.

As a result of the May 22, 2013 field meeting, the District Ranger for the Kinston Area of the NC Forest Service was contacted to obtain timber stand age information. Rhonda Huttlinger was provided with several of the sites visited during the first round of spot checks for RCW habitat. It appears that the NC Forest Service maintains data on privately owned timber plantations, but does not keep data on larger plantations (Weyerhauser properties).

Data provided by the NC Forest Service indicates that our estimations of stand age in the field on May 22 were over-estimates in almost all cases. Site 10 – potential foraging habitat was aged in the field to be 40-50 years. Plantation data show the stand is 25 years old.

Site 17 – field notes indicate that the trees were large enough for cavities but the stand was exceedingly thick. Plantation data show the stand is 24-25 years old.

Site 21 – roadside stand next to golf course neighborhood with large potential cavity trees across the road. Plantation data show 22-23 years old.

An attempt will be made to contact Weyerhauser to obtain timber stand age data for the NRTR study area – particularly sites 68-70.

RECORD OF FIELD MEETING

To: File

From: Susan Westberry

Date: November 7, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Remote Wetland Quality Assessment Methodology Field Verifications

A meeting was held on Wednesday, October 23, 2013 at the project site in Kinston, NC. The meeting began at the TradeMark/Hess gas station at the corner of US 258 and US 70 in Kinston at 9:00 am. Attendees of the meeting are listed below:

LeiLani Paugh	NCDOT Natural Environment Section (NES)
Morgan Weatherford	NCDOT NES
David Johnson	NCDOT NES
Tom Steffens	US Army Corps of Engineers
Gary Jordan	US Fish and Wildlife Service
Travis Wilson	NC Wildlife Resources Commission
Susan Westberry	URS

Purpose of Meeting

The purpose of the field meeting was to verify the accuracy of the methodologies developed by NCDOT to remotely assess wetland quality for hydraulic crossings on the project. The methodology is intended to aid in decision making on hydraulic crossings during CP2A. NCDOT developed a form/checklist to evaluate each crossing. The checklist documents wetland stressors and attributes identifiable with GIS data layers. If no stressors or other attributes can be identified to negatively impact wetland quality, the wetland is assumed to be high quality (see form attached).

David Johnson of NCDOT identified five sites to visit during the field meeting (#s 132, 48, 110, 150, and 118). Each of the five sites were different in size and potential stressors. A summary of the discussion at each of the five sites and a general summary of discussions is included below.

Summary of Discussion

- Travis Wilson warned that 'typical' CP2A decisions would not be possible with this limited data. He does not feel comfortable committing to bridge sizes or culvert sized 100% based solely on GIS data.
- It was suggested that crossings could be 'categorized' into broad types.
- Mr. Wilson suggested final length and size decisions be pushed to CP4A.
- Agencies want to be sure that expectations of the types and finality of decisions made at CP2A are understood – agencies want to reserve the right to change their sizing decisions when field verified data are made available (after LEDPA field studies).
- Agencies feel confident that the 'obvious' crossings could be committed to. Definite bridges and areas where minimum hydraulic will be sufficient.
- There will likely be a population of sites left over that will need revisiting once a LEDPA has been chosen.
- These data would be sufficient to make alternative decisions.

- There is concern that stream quality assessments have not been done – only wetlands. For crossings where it is stream only and not wetland, there is no assessment.
- Agencies want reassurance that if poor decisions are made at CP2A, changes can be made at CP4A.
- NCDOT stressed that new information allows for changes to be made to merger decisions and that stream and wetland delineations would constitute new information and allow for changes.
- Travis Wilson would like to push structure decisions until after LEDPA.
- **Agencies request to have more than two weeks lead time with CP2A package.**

Summary of Crossing Sites

#132

'Stressed' crossing. Crossing itself does not require large hydraulic opening, but the riparian structure and floodplain width dictate otherwise. This site is an example of where the decision would likely be different desktop vs. field visit. The width and quality of the wetland and floodplain is not obvious from data.

#48

Triple box culvert now and proposed. Travis Wilson requested that these types of data be provided at CP2A (list of existing and proposed structures).

#110

Existing bridge. This would be a crossing where a decision could be made.

#150

Site had stressors in all three categories. Travis Wilson agreed with culvert call on this location on the ground – not sure if he would be as positive in the office.

A discussion ensued about farm fields having both positive and negative effects from a wildlife perspective – dependent upon surrounding landscape.

#118

A single 6' x 6' proposed for this location. Not sufficient. See photo. Agencies asked how watersheds are being calculated. In this instance, this would be undersized.

Next Steps

- NCDOT to develop 'categories' for lumping of crossing types (for example, bridge, single box, minimum hydraulic, etc.).
- A trial run of sites will be completed prior to CP2A to be sure that 'categories' are sufficient.
- An office meeting to lump sites will be done (similar to what would be done at CP2A).
- A field meeting to each site would occur to verify accuracy of grouping methodology.

Assessor Name:_____ Crossing No:_____

Remote Wetland Quality Assessment Form for Major Stream Crossings

Usage Guidance:

This form seeks to document wetland stressors and attributes identifiable with GIS data layers. If no stressors or other attributes can be identified to negatively impact wetland quality, we will assume the wetland is of high quality.

Terminology, thresholds and criteria are based on definitions provided in NCWAM manual version 4.1.

Potential wetland types for this exercise are assumed to be limited to Bottomland Hardwood, Riverine Swamp Forest, Headwater Forest and Non-Tidal Freshwater marsh.

Wetland type boundaries cannot generally be distinguished with this approach and answers to the questions may be applied to the wetland complex instead.

The following GIS data layers must be acquired to assess the wetlands with this method:

- 2010 Statewide and 2012 Orthoimagery (if available)
- NCDOT Wetland Prediction Model raster
- NLCS SSURGO soils layer
- 2006 National Land Cover Database raster
- USGS 24K hydrography layer
- NCDOT Lateral Effect GIS Model drainage feature layer
- NCDWQ 303D stream layer
- NCNHP Elemental Occurrence layer
- NPDES Point Source layer
- NCDMF Anadromous Fish layer
- NCDMF Fish Nursery Area layer
- NCDENR Animal Feeding Operation Permits layer
- Other layers that may identify the site as federally or state-owned or conservation area

Consider the three major functions of wetlands according to NCWAM and identify the stressors/attributes that may affect those functions.

Hydrologic Function

1) Is there any evidence the vegetation is severely altered?

   ☐Yes ☐No

2) Is there any evidence of extensive ditching or fill?

   ☐Yes ☐No

3) Is there any evidence of long duration inundation or saturation?

☐Yes ☐No

4) Is there any evidence the over-land or over-bank flow is severely altered?

☐Yes ☐No

Notes:_____

_____

_____

Water Quality Function

1) Record the total lateral width of wetland in feet: _____

(include width from both sides of stream, if applicable)

2) Record the estimated width of the actual channel in feet: _____

3) Based on canopy coverage, do the roots of the vegetation appear to extend into the bank of the tributary?

☐Yes ☐No

Notes:_____

_____

_____

Habitat Function

1) Record the estimated size of the wetland in acres: _____

2) Is the wetland well connected to ≥100 acres *or* loosely connected to ≥500 acres of landscape patch?

☐Yes ☐No

3) Is there an artificial edge within 150 feet in four or more directions *or* is the wetland clear-cut?

☐Yes ☐No

Notes:_____

_____

_____

Opportunity-Watershed Landuse

Execute NCDOT's Watershed Landuse Calculator tool which provides a report that answers NCWAM question 6. The report should be pasted below and used to interpret the wetland's opportunity to improve water quality in the wetland assessment report.

Notes:_____

SUMMARY OF T&E DETERMINATIONS

To: File

From: Susan Westberry

Date: November 19, 2013

RE: STIP Number R-2553, Kinston Bypass, Lenoir County, North Carolina
Summary of T&E Determinations

A summary of field investigations and activities pertaining to T&E investigations for the R-2553 Kinston Bypass project was distributed on June 12, 2013. A Section 404/NEPA Interagency Merger Process Team Informational Meeting was held on June 13, 2013. During the Informational Meeting, T&E investigations and summaries were discussed with the team. One of the conclusions made during field investigations and site visits with the USACE, NCDWR, USFWS, and NCWRC was that screening for pines younger than 60 years of age may be necessary within the project area due to the larger size of some of the younger-aged pine stands. It was preliminarily suggested that screening would be needed for pines in the 30-40 year age range. URS and NCDOT recommended dropping the age of stands from 60 years to 30 to 40 years for identifying potential RCW nesting areas.

In an email dated June 20, 2013, Gary Jordan of USFWS advised that upon further investigation, RCW will not nest in trees younger than 60 years of age regardless of their diameter. RCW require thick heartwood in which to nest. Heartwood is thin in young trees and increases in width as trees age. In younger trees, the sapwood is too thick for RCW to nest. If it can be determined that there is no nesting habitat within the survey area, there is no need to search for foraging habitat.

Based upon Mr. Jordan's statements above, it was determined that further field spot checks and/or investigations may not be needed if forest stand age could be determined based on either aerial photography or landowner information. URS had been in touch with Rhonda Huttlinger, the District Ranger with NC Forest Service (rhonda.huttlinger@ncagr.gov; 252-520-2400). Ms. Huttlinger was able to provide stand age for some tracts visited during spot checks where the team (USACE, NCDWR, USFWS, NCWRC, NCDOT, and URS) felt that trees would be sufficiently large enough for nesting. Information provided by Ms. Huttlinger verified that these stands were all within the 20-30 year age range. Further field spot checks performed by URS located several stands in the southern and eastern portion of the study area with trees that appeared to be sufficiently large for nesting. Most of the timber land in the southern and eastern portions of the study area is owned by the Weyerhaueser Paper Company.

URS contacted Jessica Homyack, the Southern Wildlife Program Leader with Weyerhaueser on November 7, 2013 (jessica.homyack@weyerhaueser.com; 252-633-7525). Ms. Homyack was not able to issue specific stand information due to their confidentiality policies, but was able to provide the following statements pertaining to RCW on their lands in Lenoir, Jones, and Craven counties:

- There are no records of RCW within any of their timber stands.
- Typical rotation lengths for their stands are between 20 and 30 years.
- They do have some 'natural' stands which get to be 50 or 60 years old, but they are not maintained and are often a dense mixture of pine and hardwood species.
- They provide some known foraging habitat adjacent to the Croatan National Forest, but that is the only RCW in the vicinity of any of their lands that they are aware of.

- Weyerhaueser contractors are trained to look for signs of RCW in all of their stands prior to harvesting; Ms. Homyack is consulted if RCW are suspected.

Based on URS' previous investigations and the forest size and structure that has been observed within the study area coupled with the information that Ms. Huttlinger and Ms. Homyack have provided, URS has concluded that T&E investigations for RCW habitat can be concluded at this time. The largest trees observed have been within stands that were less than 30 years old (as verified by Ms. Huttlinger and Ms. Homyack). URS has determined there is no potential nesting habitat within the study area and, therefore, no need to search for foraging habitat. In an email dated November 15, 2013, NCDOT agreed with URS' conclusion.

Once a LEDPA has been selected, URS/NCDOT should request specific stand information from both the NC Forest Service and Weyerhaueser to confirm that conditions have not changed. The Biological Conclusion for RCW will be left 'unresolved' until a LEDPA has been chosen.

F-7 Impacted Streams

Table F-4: Impacted Streams

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S2	Falling Creek	Yes	C;Sw,NSW	--	42	--	15	--	--	--	--	--	--	--	--
S3	Southwest Creek	Yes	C;Sw,NSW	12	26	--	--	--	--	--	--	--	--	--	--
S6	Buck Branch	Yes	C;Sw,NSW	504	504	504	504	504	504	504	504	504	504	504	504
S9	Whitleys Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	879	879	502	502	--	--
S12	Peter Creek	Yes	C;Sw,NSW	--	--	356	356	356	356	--	--	--	--	356	356
S13	Clarks Branch	Yes	C;Sw,NSW	--	--	--	--	--	--	758	758	--	--	--	--
S15	Spring Branch	Yes	C;Sw,NSW	--	--	--	--	--	--	252	252	--	--	--	--
S22	Mott Swamp	Yes	C;Sw,NSW	--	--	389	389	389	389	--	--	389	389	389	389
S23	Strawberry Branch	Yes	C;Sw,NSW	--	--	532	492	532	492	729	729	532	492	492	532
S25	Mill Branch	Yes	C;Sw,NSW	616	616	--	--	--	--	--	--	--	--	--	--
S32	Tracey Swamp	Yes	C;Sw,NSW	562	562	253	562	253	562	562	263	532	562	562	253
S73	UT to Buck Branch	No	C;Sw,NSW	234	234	234	234	234	234	234	234	234	234	234	234
S74	UT to Walters Mill Pond	Yes	C;Sw,NSW	815	815	815	815	815	815	815	815	815	815	815	815
S76	UT to Walters Mill Pond	No	C;Sw,NSW	911	911	911	911	911	911	911	911	911	911	911	911
S79	UT to Mill Branch	Yes	C;Sw,NSW	479	479	--	--	--	--	--	--	--	--	--	--
S80	UT to Peter Creek	No	C;Sw,NSW	--	--	561	561	561	561	--	--	--	--	561	561

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S82	UT to Mill Branch	Yes	C;Sw,NSW	--	--	--	619	--	619	619	--	--	619	619	--
S84	UT to Mill Branch	No	C;Sw,NSW	--	--	--	340	--	340	--	--	--	340	340	--
S85	UT to Whitleys Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	--	--	499	499	--	--
S86	UT to Mill Branch	Yes	C;Sw,NSW	--	--	--	506	--	506	506	--	--	506	506	--
S87	UT to Strawberry Branch	Yes	C;Sw,NSW	--	--	343	224	343	224	--	--	343	224	224	343
S88	UT to Strawberry Branch	Yes	C;Sw,NSW	--	--	--	310	--	310	--	--	--	310	310	--
S89	UT to Strawberry Branch	Yes	C;Sw,NSW	--	--	260	250	260	250	--	--	260	250	250	260
S90	UT to Southwest Creek	No	C;Sw,NSW	--	--	--	--	--	--	--	--	432	432	--	--
S91	UT to Mill Branch	No	C;Sw,NSW	--	--	--	400	--	400	239.2	--	--	400	400	--
S92	UT to Mill Branch	Yes	C;Sw,NSW	--	--	--	308	--	308	307	--	--	308	308	--
S93	UT to Neuse River	No	WS-IV;NSW	--	--	--	--	--	--	1,080	1,080	--	--	--	--

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S94	UT to Strawberry Branch	Yes	C;Sw,NSW	--	--	306	306	306	306	--	--	306	306	306	306
S96	UT to Mott Swamp	Yes	C;Sw,NSW	--	--	1,871	1,871	1,871	1,871	--	--	1,871	1,871	1,871	1,871
S98	UT to Southwest Creek	No	C;Sw,NSW	--	--	--	--	--	--	--	--	424	424	--	--
S99	UT to Southwest Creek	Yes	C;Sw,NSW	--	--	630	628	630	630	--	--	630	630	630	630
S100	UT to Southwest Creek	No	C;Sw,NSW	--	--	421	421	421	421	--	--	421	421	421	421
S101	UT to Neuse River	Yes	WS-IV;NSW,CA	--	--	--	--	--	--	1,549	1,549	--	--	--	--
S102	UT to Whitleys Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	733	733	--	--	--	--
S103	UT to Whitleys Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	290	290	--	--	--	--
S104	UT to Mott Swamp	Yes	C;Sw,NSW	--	--	--	--	--	--	491	491	--	--	--	--
S106	UT to Southwest Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	330	330	--	--	--	--
S109	UT to Southwest Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	599	599	--	--	--	--

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S110	UT to Clarks Branch	Yes	C;Sw,NSW	--	--	--	--	--	--	57	57	--	--	--	--
S111	UT to Clarks Branch	Yes	C;Sw,NSW	--	--	--	--	--	--	50	50	--	--	--	--
S115	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	--	--	--	--	335	335
S118	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	601	601	568	568	--	--
S121	UT to Neuse River	Yes	C;NSW	587	587	587	587	587	587	709	709	667	667	587	587
S122	UT to Neuse River	Yes	C;NSW	717	717	717	717	834	834	613	613	613	613	834	834
S124	UT to Falling Creek	Yes	C;Sw,NSW	1,059	1,059	1,059	1,059	2,303	2,303	--	--	--	--	2,303	2,303
S126	UT to Neuse River	No	C;NSW	553	553	553	553	553	553	553	553	553	553	553	553
S127	UT to Neuse River	No	C;NSW	--	--	--	--	1,166	1,166	--	--	--	--	--	--
S128	UT to Falling Creek	Yes	C;Sw,NSW	--	--	--	--	988	988	--	--	--	--	--	--
S129	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	272	272	780	780	--	--
S130	UT to Falling Creek	Yes	C;Sw,NSW	--	--	205	205	--	--	--	--	--	--	--	--
S133	UT to Falling Creek	Yes	C;Sw,NSW	339	1,162	--	--	--	--	--	--	--	--	--	--
S134	UT to Neuse River	Yes	C;NSW	445	445	445	445	445	445	892	892	892	892	445	445

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S137	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	--	--	298	298	--	--
S138	UT to Falling Creek	Yes	C;Sw,NSW	--	--	99	99	--	--	--	--	--	--	--	--
S139	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	325	325	--	--	--	--
S143	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	487	487	487	487	--	--
S145	UT to Falling Creek	Yes	C;Sw,NSW	--	508	965	965	292	292	--	--	--	--	292	292
S146	UT to Falling Creek	Yes	C;Sw,NSW	--	752.8	278.3	278.3	--	--	--	--	--	--	--	--
S148	UT to Neuse River	Yes	C;NSW	244	--	--	--	--	--	--	--	--	--	--	--
S149	UT to Neuse River	Yes	C;NSW	863	863	863	863	863	863	863	863	863	863	863	863
S150	UT to Neuse River	Yes	C;NSW	696	--	--	--	--	--	--	--	--	--	--	--
S152	UT to Neuse River	Yes	C;NSW	468	2,857	--	--	--	--	--	--	--	--	--	--
S153	UT to Falling Creek	Yes	C;Sw,NSW	--	--	235	235	547	547	--	--	--	--	547	547
S154	UT to Falling Creek	Yes	C;Sw,NSW	251	407	--	--	--	--	--	--	--	--	--	--
S155	UT to Falling Creek	Yes	C;Sw,NSW	--	--	298	298	946	946	--	--	--	--	335	335
S156	UT to Neuse River	Yes	C;NSW	381	--	--	--	--	--	--	--	--	--	--	--

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S157	UT to Neuse River	No	C;NSW	42	--	--	--	--	--	--	--	--	--	--	--
S158	UT to Neuse River	Yes	C;NSW	1.049	1,049	1,049	1,049	153	153	121	121	121	121	153	153
S160	UT to Neuse River	Yes	C;NSW	658	--	--	--	--	--	--	--	--	--	--	--
S161	UT to Neuse River	Yes	C;NSW	1,957	--	--	--	--	--	--	--	--	--	--	--
S162	UT to Peter Creek	Yes	C;Sw,NSW	--	--	97	98	97	97	--	--	--	--	97	97
S166	UT to Neuse River	Yes	C;NSW	191	191	191	191	180	180	1,554	1,554	1,554	1,554	457	457
S167	UT to Falling Creek	Yes	C;Sw,NSW	--	348	261	261	--	--	--	--	--	--	--	--
S170	UT to Falling Creek	Yes	C;Sw,NSW	149	454	--	--	--	--	--	--	--	--	--	--
S171	UT to Falling Creek	Yes	C;Sw,NSW	--	--	--	--	278	278	--	--	--	--	--	--
S172	UT to Neuse River	No	C;NSW	--	--	--	--	--	--	--	--	259	259	--	--
S174	UT to Falling Creek	Yes	C;Sw,NSW	1,275	382	--	--	--	--	--	--	--	--	--	--
S175	UT to Falling Creek	Yes	C;Sw,NSW	536	916	--	--	--	--	--	--	--	--	--	--
S176	UT to Neuse River	Yes	WS-IV;NSW,CA	--	--	--	--	--	426	426	--	--	--	--	--
S178	UT to Falling Creek	No	C;Sw,NSW	--	--	268	268	530	530	--	--	--	--	332	332

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S181	UT to Neuse River	Yes	C;NSW	76	--	--	--	--	--	--	--	--	--	--	--
S182	UT to Falling Creek	Yes	C;Sw,NSW	--	--	873	873	--	--	--	--	--	--	--	--
S184	UT to Falling Creek	Yes	C;Sw,NSW	--	--	980	980	299	299	--	--	--	--	299	299
S185	UT to Neuse River	No	C;NSW	151	--	--	--	--	--	--	--	--	--	--	--
S186	UT to Falling Creek	Yes	C;Sw,NSW	--	--	--	--	379	379	--	--	--	--	--	--
S193	UT to Tracey Swamp	No	C;Sw,NSW	4,968	4,968	1,760	4,968	1,760	4,968	4,968	1,760	1,760	4,968	4,968	1,760
S194	UT to Gum Swamp	Yes	C;Sw,NSW	1,550	1,550	127	1,550	127	1,550	1,550	127	127	1,550	1,550	127
S195	UT to Gum Swamp	Yes	C;Sw,NSW	876	876	776	873	776	873	873	776	776	873	873	776
S196	UT to Tracey Swamp	Yes	C;Sw,NSW	--	--		--		--	--	9		--	--	
S197	UT to Tracey Swamp	Yes	C;Sw,NSW	826	826	350	826	350	826	826	356	350	826	826	350
S198	UT to Tracey Swamp	Yes	C;Sw,NSW	2,671	2,671	3,100	2,596	3,100	2,596	2,596	3,100	3,100	2,596	2,596	3,100
S199	UT to Mill Branch	Yes	C;Sw,NSW	--	--	244	--	244	--	--	249	244	--	--	244
S202	UT to Falling Creek	Yes	C;Sw,NSW	450	994	--	--	--	--	--	--	--	--	--	--

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S203	UT to Southwest Creek	Yes	C;Sw,NSW	--	215	--	--	--	--	--	--	--	--	--	--
S204	UT to Southwest Creek	No	C;Sw,NSW	--	129	--	--	--	--	--	--	--	--	--	--
S205	UT to Southwest Creek	Yes	C;Sw,NSW	--	1,353	--	--	--	--	--	--	--	--	--	--
S206	UT to Neuse River	Yes	C;NSW	--	--	448	449	448	448	--	--	--	--	448	448
S207	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	129	129	240	240	--	--
S208	UT to Southwest Creek	Yes	C;Sw,NSW	--	--	--	--	--	--	384	384	--	--	--	--
S209	UT to Neuse River	Yes	C;NSW	479	--	--	--	--	--	--	--	--	--	--	--
S210	UT to Neuse River	Yes	C;NSW	875	875	875	875	--	--	60	60	60	60	--	--
S211	UT to Neuse River	Yes	C;NSW	928	--	--	--	--	--	--	--	--	--	--	--
S212	UT to Falling Creek	Yes	C;Sw,NSW	--	--	162	162	--	--	--	--	--	--	190	190
S213	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	--	--	--	--	432	432
S214	UT to Neuse River	Yes	C;NSW	532	532	532	532	--	--	--	--	--	--	--	--

Stream ID	Stream Name	Subject to Buffer Rules[a]	Best Usage Classification	Stream Impact by Alternative (feet)											
				1UE	1SB	11	12	31	32	35	36	51	52	63	65
S215	UT to Neuse River	Yes	C;NSW	182	--	--	--	--	--	--	--	--	--	--	--
S216	UT to Neuse River	Yes	C;NSW	--	--	--	--	--	--	--	--	--	--	55	55
S217	UT to Neuse River	Yes	C;NSW	--	201	--	--	--	--	--	--	--	--	--	--
S218	UT to Neuse River	Yes	C;NSW	714	--	--	--	--	--	--	--	--	--	--	--
S219	UT to Falling Creek	Yes	C;Sw,NSW	--	38	--	--	--	--	--	--	--	--	--	--
S220	UT to Neuse River	Yes	C;NSW	182	--	--	--	--	--	--	--	--	--	--	--
S221	UT to Peter Creek	Yes	C;Sw,NSW	--	38	--	--	--	--	--	--	--	--	--	--
S222	UT to Neuse River	Yes	C;NSW	--	221	--	--	--	--	--	--	--	--	--	--
S223	UT to Neuse River	Yes	C;NSW	--	63	--	--	--	--	--	--	--	--	--	--
S224	UT to Southwest Creek	No	C;Sw,NSW	--	124	--	--	--	--	--	--	--	--	--	--

UT-Unnamed tributary

[a] Determination of the applicability of Neuse River Buffer Rules was based solely on their presence or absence on 24,000 USGS topographic mapping. NRCS soils mapping was not consulted for these determinations. Potential impacts to protected stream buffers will be determined once formal stream delineations have been performed.

Note: Impact calculations presented have been calculated using the construction slope stake limits plus a 40-foot buffer of the functional designs.

APPENDIX G: HAZARD MITIGATION

Table G-1: Hazardous materials sites

Site Number	Type	Location	Property Name	Anticipated Impacts	Anticipated Risk
1	SQG	4758 Washington Street, La Grange	Cooper Interconnect/Crouse-Hinds Molded Products	Low	Low
2	UST	7903 Highway 70 West	Grange Central Station	Low	Low
3	UST	7851 Highway 70 West	Hasty Mart 31	Low	Low
4	Auto salvage	7514 Highway 70 West	Vacant Site with Billboard	Low	Low
5	Auto salvage	7135 Highway 70 West	Foss Enterprises Inc.	Low	Low
6	Auto salvage	7067 Highway 70 West	Foss Jimmie Carr Jr	Low	Low
7	UST	6844 Highway 70 West	Singleton's Grocery	Low	Low
8	UST	Highway 70 West	Farm Stand	Low	Low
9	UST	6130 Highway 70 West	Mallard Food Shop No. 19	Low	Low
10	UST	5744 Highway 70 West	Falling Creed Service Center	Low	Low
11	SQG	1028 Innovation Way	Pharmaceutical Services	Low	Low
12	UST	Vernon Avenue	Coca Cola Warehouse	Low	Low
13	UST	4050 West Vernon Avenue	Kinston Suzuki	Low	Low
14	UST	3800 West Vernon Avenue	66 Mini-Mart/Speedway 8229	Low	Low
15	UST	Highway 70 West	Davis Tire	Low	Low
16	UST	3601 West Vernon Avenue	C-Mart 9 Pure	Low	Low
17	UST	2697 Highway 258 North	Carolina Ice Company	Low	Low

Site Number	Type	Location	Property Name	Anticipated Impacts	Anticipated Risk
18	Auto salvage	Highway 70	Auto Salvage	Low	Low
19	Auto salvage	1601 West New Bern Road	Auto Salvage	Low	Low
20	UST	1100 West New Bern Road	Stroud's Exxon	Low	Low
21	UST	1101 West New Bern Road	Fuel Warehouse	Low	Low
22	UST	1020 East New Bern Road	Circle B 9	Low	Low
23	UST	1005 South New Bern Road	Kinston Quick Stop/Scotchman #78	Low	Low
24	UST	1050 New Bern Road	Minuteman Foodmart 35	Low	Low
25	Landfill	Lake Street and US 70	Carter's Refuse Disposal	Low	Low
26	UST	Highway 70/258 South	NCDOT Weigh Station	Low	Low
27	UST	225 East New Bern Road	Neuse Sports Shop	Low	Low
28	UST	310 East New Bern Avenue	The Pantry #3181 (Former)	Low	Low
29	UST	303 East New Bern Road	Scotchman 185	Low	Low
30	UST	509 East New Bern Road	Circle K 2723472	Low	Low
31	UST	606 East New Bern Road	Barrus Property	Low	Low
32	UST	700 East New Bern Road	The Pantry #3076	Low	Low
33	UST	US Highway 70 east	Former Montgomery-Green Facility	Low	Low
34	UST	US Highway 70 East	Oh! Do Drop In (Former)	Low	Low
35	UST	Highway 70 East	Marr's Automotive, LLC	Low	Low
36	UST	6041 Highway 70	Mallard Oil Company	Low	Low

Site Number	Type	Location	Property Name	Anticipated Impacts	Anticipated Risk
37	Auto salvage	5763 Highway 70 East	Auto Salvage	Low	Low
38	UST	136 Dover Road	Auto Service Center	Low	Low
39	UST	2777 Highway 55 West	Lighthouse Food Mart #110	Low	Low
40	UST	159 Highway 11 South	Southeast-Ern Freight Lines, Inc.	Low	Low
41	UST	1702 Old Pink Hill Road	The Pantry #905	Low	Low
42	UST	1559 Highway 11/55	Vacant Lot	Low	Low

Source: Box 2013

APPENDIX H: NOTICE OF INTENT

2011 workforce of approximately 39,000.

(2) The Full Implementation Alternative (the Preferred Alternative) would implement the revised RPMP and all short-term and long-term projects. If the proposed short-term projects were completed as proposed under this alternative, approximately 5,000 employees would be added to the post's workforce by 2017. If the long-term development projects were completed as proposed under this alternative, an additional 12,000 employees would be added, bringing the total 2030 workforce to approximately 56,000.

(3) The Modified Long-Term Alternative proposes implementing the revised RPMP, all but two short-term projects proposed under the Full Implementation Alternative, and all but one of the long-term projects proposed under the Full Implementation Alternative. A proposed secure administrative campus on the Fort Belvoir North Area would not be built. Two of the short-term projects would be delayed to 2018 or later. Under this alternative, the total 2030 workforce would be approximately 50,000.

(4) The Modified Short-Term Alternative proposes implementing the revised RPMP, most of the short-term projects, and all of the long-term projects but most short-term projects would be delayed until after 2017. Under this alternative, the total 2030 workforce would be approximately 55,000.

Following issuance of the EIS Notice of Intent in September 2012, ''Short-Range Projects'' in the EIS title changed to ''Short-Term Projects'' to align with Unified Facilities Criteria 2–100–01,Installation Master Planning.

The DEIS evaluates the impacts of the alternatives on land use; socioeconomics, community facilities, and environmental justice; cultural resources; transportation and traffic; air quality; noise; geology, topography, and soils; water resources; biological resources; hazardous materials; utilities; and energy use and sustainability. The only resource that would sustain significant adverse impacts is transportation and traffic; impacts would be significant under all three action alternatives. Mitigation is identified for traffic impacts on Fort Belvoir and roadways in the vicinity of Fort Belvoir. While no significant adverse impacts are expected to biological resources, mitigations are proposed for tree removal.

All government agencies, special interest groups, and individuals are invited to attend the public meeting and/or submit their comments in writing. Information on the date, time and location of the public meeting will be published locally.

Copies of the DEIS are available at the: Van Noy Library, Fort Belvoir; John Marshall Library, Alexandria, VA; Sherwood Regional Library, Alexandria, VA; Chinn Park Library, Woodbridge, VA; Kingstowne Library, Alexandria, VA; and Lorton Library, Lorton, VA. The DEIS can also be viewed at the following Web site: *https://www.belvoir.army.mil/environdocssection9.asp*.

Brenda S. Bowen,

Army Federal Register Liaison Officer.

[FR Doc. 2014–21663 Filed 9–10–14; 8:45 am]

BILLING CODE 3710–08–P

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Notice of Intent To Prepare a Draft Environmental Impact Statement in Cooperation With the North Carolina Department of Transportation for Improvements to the US 70 Corridor Between the Town of LaGrange, Lenoir County and the Town of Dover, Jones County, NC, the Proposed Project Would Ultimately Serve as a Bypass to the Town of Kinston, NC

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DoD.

ACTION: Notice of Intent.

SUMMARY: The U.S. Army Corps of Engineers (COE), Wilmington District, Wilmington Regulatory Division is issuing this notice to advise the public that a State of North Carolina funded Draft Environmental Impact Statement (DEIS) will be prepared for improvements to the transportation system starting near the intersection of US 70 and NC 903 near the Town of LaGrange, Lenoir County, heading east near the intersection of US 70 and Old US 70 (NCSR–1005) near the Town of Dover, Jones County, NC.

FOR FURTHER INFORMATION CONTACT: Questions about the proposed action and DEIS can be directed to Mr. Tom Steffens, Regulatory Project Manager, Washington Regulatory Field Office, 2407 West 5th Street, Washington, NC 27889; telephone: (910) 251–4615 or Mr. Bob Deaton, Project Development Engineer, North Carolina Department of Transportation, 1548 Mail Service Center, Raleigh, NC 27699–1548, Telephone: (919) 707–6017.

SUPPLEMENTARY INFORMATION: The COE in cooperation with the North Carolina Department of Transportation (NCDOT) will prepare an Environmental Impact Statement (EIS) on a proposal to make transportation improvements to the US 70 corridor between the Town of LaGrange, Lenoir County and the Town of Dover, Jones County, NC. The North Carolina Department of Transportation Improvement Program (TIP R–2553 US 70 Kinston Bypass) project will serve as a Geographic Information System (GIS) pilot project to test and evaluate streamlining the project development process by utilizing GIS data for alternative development, alternative analysis, and selection of the Least Environmentally Damaging Practicable Alternative (LEDPA).

The purpose of the US 70 Kinston Bypass project is to improve regional mobility, connectivity and capacity deficiencies on US 70 between LaGrange and Dover. The project study area is roughly bounded on the west by NC–903 and US 70 near LaGrange, on the north by the Lenoir/Greene County line, to the east near Dover and to the south at the Duplin/Lenoir County line.

This project is being reviewed through the Merger 01 process designed to streamline the project development and permitting processes, agreed to by the COE, North Carolina Department of Environment and Natural Resources (Division of Water Resources, Division of Coastal Management), Federal Highway Administration (for this project not applicable), North Carolina Department of Transportation and supported by other stakeholder agencies and local units of government. The other partnering agencies include: U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; N.C. Wildlife Resources Commission; N.C. Department of Cultural Resources; and the Eastern Carolina Rural Planning Organization. The Merger process provides a forum for appropriate agency representatives to discuss and reach consensus on ways to facilitate meeting the regulatory requirements of Section 404 of the Clean Water Act during the NEPA/SEPA decision-making phase of transportation projects.

In June 2010 the project was presented to Federal and State Resource and Regulatory Agencies to gain concurrence on the purpose and need for the project. The aforementioned purpose and need of the project was agreed upon by participating agencies in October of 2010. In November 2011, the project was again presented to participating agencies regarding the preliminary corridor screening process in an attempt to decide which alternatives would be carried forward for detailed analysis. Multiple meetings throughout 2012 and 2013 revised the initial number of alternatives carried

forward for detailed analysis down to a reasonable range. In January of 2014, the final alternatives to carry forward were decided. Since 2011, the Corps has been working closely with NCDOT and its representatives to identify jurisdictional resources within the alternatives carried forward. This effort should be complete sometime in summer of 2014.

Three citizen informational workshops were held in Kinston for the US 70 Kinston Bypass project between 2010 and 2012. The February 23 and 25, 2010 meeting presented the overall project, the project team and project decision process. A total of 291 participants signed in, with 67 written comments received via general question survey. The September 20 and 21, 2011 meeting presented the potential route options to the public. A total of 172 participants signed in and 48 comments were received via general question survey. The May 15 and 17, 2012 meeting presented the alternatives selected for detailed study to the public. A total of 185 participants signed in and 54 comments were received via general question survey. There was no clear support or opposition to the project noted as a result of the surveys.

Environmental consequences: CEQ regulations (40 CFR 1502.16) state the EIS will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented. The EIS will assess a reasonable number of alternatives and identify and disclose the direct impacts of the proposed project on the following: Topography, geology, soils, climate, biotic communities, wetlands, fish and wildlife resources, endangered and threatened species, hydrology, water resources and water quality, floodplains, hazardous materials, air quality, noise, aesthetics, recreational resources, historical and cultural resources, socioeconomics, land use, public health and safety, energy requirements and conservation, natural or non-renewable resources, drinking waters, and environmental justice.

Secondary and cumulative environmental impacts: Cumulative impacts result from the incremental impact of the proposed action when added to past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes the action. Geographic Information System (GIS) data and mapping will be used to evaluate and quantify secondary and cumulative impacts of the proposed Project with particular emphasis given to wetlands and surface/groundwater resources.

Mitigation: CEQ regulations (40 CFR 1502.14, 1502.16, and 1508.20) require the EIS to include appropriate mitigation measures. The USACE has adopted, through the CEQ, a mitigation policy which embraces the concepts of ''no net loss of wetlands'' and project sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of ''Waters of the United States,'' specifically wetlands. Mitigation of wetland impacts has been defined by the CEQ to include: avoidance of impacts (to wetlands), minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts (40 CFR 1508.20). Each of these aspects (avoidance, minimization, and compensatory mitigation) must be considered in sequential order. As part of the EIS, the applicant will develop a compensatory mitigation plan detailing the methodology and approach to compensate for unavoidable impacts to waters of the U.S. including streams and wetlands.

NEPA/SEPA Preparation and Permitting: Because the proposed project requires approvals from federal and state agencies under both the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA), a joint Federal and State Environmental Impact Statement (EIS) will be prepared. The U.S. Army Corps of Engineers will serve as the lead agency for the process. The EIS will serve as the NEPA document for the Corps of Engineers (404 permit) and as the SEPA document for the State of North Carolina (401 permit).

Based on the size, complexity, and potential impacts of the proposed project, the Applicant has been advised by the U.S. Army Corps of Engineers to identify and disclose the environmental impacts of the proposed project in an Environmental Impact Statement (EIS). Within the EIS, the Applicant will conduct a thorough environmental review, including an evaluation of a reasonable number of alternatives. After distribution and review of the Draft EIS and Final EIS, the Applicant understands that the U.S. Army Corps of Engineers in coordination with the North Carolina Department of Transportation will issue a Record of Decision (ROD) for the project. The ROD will document the completion of the EIS process and will serve as a basis for permitting decisions by federal and state agencies.

To ensure that the full range of issues related to this proposed action are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to the US Army Corps of Engineers at the address provided above. The Wilmington District will periodically issue Public Notices soliciting public and agency comment on the proposed action and alternatives to the proposed action as they are developed.

Henry M. Wicker, Jr.,

Deputy Chief, Regulatory Division.

[FR Doc. 2014–21664 Filed 9–10–14; 8:45 am]

BILLING CODE 3720–58–P

DEPARTMENT OF EDUCATION

[Docket No. ED–2014–ICCD–0073]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Case Studies of the Implementation of Kindergarten Entry Assessments

AGENCY: Evaluation and Policy Development (OPEPD), Office of Planning, Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 3501 *et seq.*), ED is proposing a new information collection.

DATES: Interested persons are invited to submit comments on or before October 14, 2014.

ADDRESSES: Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at *http://www.regulations.gov* by selecting Docket ID number ED–2014–ICCD–0073 or via postal mail, commercial delivery, or hand delivery. If the regulations.gov site is not available to the public for any reason, ED will temporarily accept comments at *ICDocketMgr@ed.gov*. Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted; ED will only accept comments during the comment period in this mailbox when the regulations.gov site is not available. Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the

APPENDIX I: DISCLOSURE STATEMENTS

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, AECOM Technical Services of North Carolina, Inc., do hereby certify that we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the US 70- Kinston Bypass project, (Action Identification #SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina), except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

AECOM Technical Services of North Carolina, Inc.

Sreekanth Nandagiri

By: Sreekanth "Sunny" Nandagiri, PE, PMP

Title: Vice President

Date: January 19, 2017

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, The Louis Berger Group, Inc. -North Carolina , do hereby certify that we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the US 70- Kinston Bypass project, (Action Identification #SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina), except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

The Louis Berger Group, Inc. – North Carolina

By: Lawrence Pesesky

Title: Senior Vice President

Date: January 26, 2017

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, O. R. Colan Associates, LLC, do hereby certify that we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the US 70- Kinston Bypass project, (Action Identification #SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina), except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

O. R. Colan Associates, LLC

Stephen Toth

By: Stephen Toth

Title: Chief Operating Officer

Date: 1/5/2018

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, URS Corporation-North Carolina , do hereby certify that we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the US 70- Kinston Bypass project, (Action Identification #SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina), except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

URS Corporation – North Carolina

By: David A. Griffin

Title: Vice President

Date: July 28, 2014

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, E.L. Robinson Engineering Company, do hereby certify that we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the Kinston Bypass project, Action identification number SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina, except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

E.L. Robinson Engineering Company

By: Dean Hatfield

Title: Vice President

Date: May 9, 2019

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, Planning Communities, LLC , do hereby certify that we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the US 70- Kinston Bypass project, (Action Identification #SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina), except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

Planning Communities, LLC

Ann Steedly

By: Ann Steedly, P.E.

Title: Chief Operations Officer

Date: July 28, 2014

DISCLOSURE STATEMENT

40 CFR § 1506.5(c)

We, East Carolina University, do hereby certify that, to the best of our knowledge, we have not entered into and, during the lifetime of the EIS preparation, will not enter into any agreement affording us or any Subcontractors that we may hire with any direct or indirect financial interest in the planning, design, construction or operation of the US 70- Kinston Bypass project, (Action Identification #SAW-2009-01603, located in Craven, Jones and Lenoir Counties, North Carolina), except with regard to the preparation of the EIS. In making this certification, we acknowledge that we have read, considered, and are in compliance with the provisions of 40 CFR § 1506.5(c), and the Council on Environmental Quality (CEQ) Forty Questions, Questions 16 & 17 (copies attached). We further certify that we will, in the Draft EIS, make a full disclosure of the scope and extent of the firm's prior involvement in the Kinston Bypass project.

East Carolina University

Barbara H. Gray

By: Barbara H. Gray

Title: Director, Sponsored Programs

Date: 07/29/2014

CEQ Forty Questions, Questions 16 & 17

All 40 questions can be found at: http://ceq.eh.doe.gov/nepa/regs/40/40p3.htm

Question 16. **Third Party Contracts.** What is meant by the term "third party contracts" in connection with the preparation of an EIS? See Section 1506.5(c). When can "third party contracts" be used?

A. As used by EPA and other agencies, the term "third party contract" refers to the preparation of EISs by contractors paid by the applicant. In the case of an EIS for a National Pollution Discharge Elimination System (NPDES) permit, the applicant, aware in the early planning stages of the proposed project of the need for an EIS, contracts directly with a consulting firm for its preparation. See 40 C.F.R. 6.604(g). The "third party" is EPA which, under Section 1506.5(c), must select the consulting firm, even though the applicant pays for the cost of preparing the EIS. The consulting firm is responsible to EPA for preparing an EIS that meets the requirements of the NEPA regulations and EPA's NEPA procedures. It is in the applicant's interest that the EIS comply with the law so that EPA can take prompt action on the NPDES permit application. The "third party contract" method under EPA's NEPA procedures is purely voluntary, though most applicants have found it helpful in expediting compliance with NEPA.

If a federal agency uses "third party contracting," the applicant may undertake the necessary paperwork for the solicitation of a field of candidates under the agency's direction, so long as the agency complies with Section 1506.5(c). Federal procurement requirements do not apply to the agency because it incurs no obligations or costs under the contract, nor does the agency procure anything under the contract.

Question 17a. **Disclosure Statement to Avoid Conflict of Interest.** If an EIS is prepared with the assistance of a consulting firm, the firm must execute a disclosure statement. What criteria must the firm follow in determining whether it has any "financial or other interest in the outcome of the project" which would cause a conflict of interest?

A. Section 1506.5(c), which specifies that a consulting firm preparing an EIS must execute a disclosure statement, does not define "financial or other interest in the outcome of the project." The Council interprets this term broadly to cover any known benefits other than general enhancement of professional reputation. This includes any financial benefit such as a promise of future construction or design work on the project, as well as indirect benefits the consultant is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients). For example, completion of a highway project may encourage construction of a shopping center or industrial park from which the consultant stands to benefit. If a consulting firm is aware that it has such an interest in the decision on the proposal, it should be disqualified from preparing the EIS, to preserve the objectivity and integrity of the NEPA process.

When a consulting firm has been involved in developing initial data and plans for the project, but does not have any financial or other interest in the outcome of the decision, it need not be disqualified from preparing the EIS. However, a disclosure statement in the draft EIS should clearly state the scope and extent of the firm's prior involvement to expose any potential conflicts of interest that may exist.

17b. If the firm in fact has no promise of future work or other interest in the outcome of the proposal, **may the firm later bid** in competition with others for future work on the project if the proposed action is approved?

A. Yes.

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