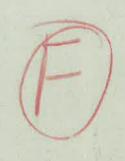
NC 43 CONNECTOR FROM NC 55 TO US 17 **CRAVEN COUNTY, NORTH CAROLINA**

State Project No. 6.804857 T.I.P. Project No. R-4463 W.B.S. No. 35601.1.1



Administrative Action STATE FINDING OF NO SIGNIFICANT IMPACT

Submitted Pursuant to the State Environmental Policy Act of 1971 by the **North Carolina Department of Transportation**

FOR Gregory J. Thorpe, PhD.

Environmental Management Director

Project Development and Environmental Analysis Branch

North Carolina Department of Transportation

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August 2005

Documentation Prepared by: STANTEC CONSULTING SERVICES INC. RALEIGH, NORTH CAROLINA

8/22/05

Paul R. Koch, PE, AICP Project Manager, Stantec

Documentation Prepared for: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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PROJECT COMMITMENTS

NC 43 CONNECTOR FROM NC 55 TO US 17

CRAVEN COUNTY, NORTH CAROLINA

STATE PROJECT NO. 6.804857 T.I.P. NO. R-4463

In addition to the Section 404 Permit Conditions, Nationwide Permit Conditions, Regional Conditions, State Consistency Conditions, Section 401 Water Certification Conditions, CAMA Consistency Conditions, and measures detailed in NCDOT's *Best Management Practices for the Protection of Surface Waters*, the following special commitments have been agreed to by the NCDOT:

Roadway Design Unit

1. In lieu of a ramp in the southeast quadrant of the interchange at US 70, the interchange will be constructed with a ramp/loop configuration in the southwest quadrant. However, the NCDOT will purchase right-of-way for a future ramp in the southeast quadrant should it be warranted by future traffic volumes or after the construction of the (currently unfunded) NC 43 Connector south of US 70.

Roadway Design Unit & Project Development & Environmental Analysis Branch

- 1. To minimize noise impacts, a noise wall is proposed along the western boundary of the Trent Creek subdivision, just north of US 17. This commitment is subject to a detailed design noise study and additional public involvement efforts.
- 2. Wildlife crossing(s) for small animal passage will be constructed south of US 70 along the NC 43 Connector. The exact location(s) and sizing of wildlife crossing(s) will be addressed during the final design phase. Animal passage design will be subject to approval by the US Fish and Wildlife Service and the NC Wildlife Resources Commission.

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

FINDING OF NO SIGNIFICANT IMPACT

NC 43 CONNECTOR

State Project No. 6.804857 T.I.P. Project No. R-4463 W.B.S. No. 35601.1.1

A. INTRODUCTION

This Finding of No Significant Impact (FONSI) describes the Selected Alternative for the proposed NC 43 Connector. In accordance with the North Carolina (or State) Environmental Policy Act (SEPA), this FONSI, identifies: 1) a description of the proposed action; 2) a list of probable environmental impacts; 3) justification for the conclusion of no significant impact; and, 4) a statement that this FONSI completes the environmental review record for the proposed project (01 NCAC 25 .0505). This FONSI also includes a discussion of mitigation measures and monitoring and enforcement programs.

To maintain brevity, supporting project information (i.e., background information on the purpose of and need for the proposed project, discussion of the affected environment, a complete description of the anticipated impacts of each alternative) contained in the EA, dated March 21, 2005 (NCDOT, 2005a) is incorporated by reference.

B. PROPOSED ACTION

The North Carolina Department of Transportation (NCDOT) 2006-2012 Transportation Improvement Program (TIP) includes the extension of NC 43 from NC 55 to US 17 just west of New Bern in Craven County, North Carolina. This project is referred to as the NC 43 Connector and is proposed as a four-lane, median-divided, partial control of access facility on new location. Full movement intersections are proposed at NC 43/55 and US 17. An interchange is proposed with US 70. The approximate length of the project is 4.5 miles. Exhibit 1 shows the general location of the proposed project. Exhibit 2 shows the project study area.

The purpose of and need for this project is based on the economic development of Craven County and on projected traffic volumes. A new connection between US 17, NC 43, and the proposed US 17 Bypass (TIP Project No. R-2301 A & B) would help promote economic development in Craven County by providing a transportation infrastructure capable of

accommodating future development that would result in job creation. The proposed connector would provide a more direct route for truck traffic to access US 70 from the north, which would reduce truck traffic on Glenburnie Road between NC 43/55 and US 70.

Although this is a state-funded project subject to SEPA requirements, the proposed project was planned utilizing the NEPA/404 Merger Process, developed through an interagency agreement between the NCDOT, FHWA, and the US Army Corps of Engineers (USACE). This process integrates the NEPA process and the [Clean Water Act] Section 404 permitting process. Federal and state environmental regulatory and resource agencies (the NEPA/404 Merger Team) meet and agree on project milestones, called "Concurrence Points," throughout the planning and design processes.

The decisions and subsequent studies resulting from Concurrence Point 1 (*Purpose and Need*) and Concurrence Point 2 (*Alternatives for Detailed Study*) comprise the information contained in EA Section 1.0 (*Purpose and Need for Action*) and EA Section 2.0 (*Alternatives*). This FONSI details the results of Concurrence Point 3 (*Least Environmentally Damaging Practicable Alternative/Alternative Selection*).

C. ALTERNATIVES CONSIDERED

This section addresses the various alternatives analyzed for the proposed action. Alternatives that did not meet the goals of the project, created disproportionate adverse impacts, or were considered impractical or noncompetitive, were eliminated from further consideration.

No-Build Alternative

The specific purpose and need of this project is to promote economic development in the project study area and to reduce truck traffic on Glenburnie Road between NC 43/55 and US 70. The No-Build Alternative would therefore not satisfy the purpose of and need for the proposed project.

Improve Existing Alternative

This alternative would not provide infrastructure for economic development in the land between NC43/55, US 70 and US 17. The Improve Existing Alternative would therefore not satisfy the purpose of and need for the proposed project.

Transportation Systems Management Alternative

Transportation System Management improvements would not provide infrastructure for economic development in the land between NC43/55, US 70 and US 17 and, therefore, would not satisfy the purpose of and need for the proposed project.

Mass Transit Alternative

The project study area is not currently served by mass transit. Implementation of mass transit or the expansion of existing transit services would not provide infrastructure for economic development in the land between NC 43/55, US 70 and US 17 and, therefore, would not satisfy the purpose of and need for the proposed project.

Build Alternatives

As a result of the NEPA/404 Merger Team meeting on June 18, 2003, the preliminary Build Alternatives (A, B, and C) were modified to avoid and/or minimize potential impacts. One modification common to all preliminary Build Alternatives was the creation of an "optional" northern terminus that diverges south around existing industrial development, converges with Bosch Boulevard, and terminates at NC 43/55. It was determined that this optional northern terminus and the original northern terminus, vest of the intersection of NC 43 and NC 55, would be evaluated for all Build Alternatives.

As a result, six Detailed Study Alternatives (D, D.1, E, E.1, F, F.1) were retained for further study. The construction of either northern terminus would require improvements at the intersection of NC 43 and NC 55 and improvements to existing segments of NC 43, NC 55, and NC 43/55. A short two-lane connector between Bosch Boulevard and the NC 43 Connector is proposed with either northern terminus option. Exhibit 3a shows Alternatives D, E, and F. Exhibit 3b shows Alternatives D.1, E.1, and F.1. The following paragraphs describe the Detailed Study Alternatives.

Alternative D – From the northern terminus, Alternative D turns southwest to a proposed grade separation over the NCRR tracks. Approximately one mile south of the railroad, an interchange is proposed with US 70. South of the interchange, this alternative roughly parallels the residential development boundary and bears southeast towards US 17. Alternative D continues south between two existing neighborhoods near US 17, terminating at a new intersection with US 17.

Alternative D.1 – This alternative is identical to Alternative D with the exception of the optional northern terminus.

Alternative E – From the northern terminus, Alternative E turns southwest to a proposed grade separation over the NCRR tracks. Approximately one mile south of the railroad, an interchange is proposed with US 70. Alternative E shares a common alignment with Alternatives F and F.1 to about one mile south of US 70 where it diverges to the west. Alternative E terminates at a new intersection with US 17 approximately 0.3 miles west of Trent Creek Road.

Alternative E.1 – This alternative is identical to Alternative E with the exception of the optional northern terminus.

Alternative F – From the northern terminus, Alternative F turns southwest to a proposed grade separation over the NCRR tracks. Approximately one mile south of the railroad, an interchange is proposed with US 70. The interchange is located west of Alternative D and parallels an existing powerline easement. South of US 70, this alternative continues to parallel the powerline easement before curving to the east. The southern portion of this alternative would connect to existing Trent Creek Road and terminate at US 17.

Alternative F.1 – This alternative is identical to Alternative F with the exception of the optional northern terminus.

D. DECISION

Alternative F was selected as the Least Environmentally Damaging Practicable Alternative (LEDPA) by the NEPA/404 Merger Team on July 13, 2005. The NEPA/404 Merger Team signature form for Concurrence Point 3 is contained in Appendix A. A description of the Selected Alternative is provided in the following paragraphs. Exhibit 4 shows the Selected Alternative. Typical sections for the Selected Alternative are shown in Exhibit 5. Exhibit 6 shows the recommended laneage for the Selected Alternative.

The northern terminus of the Selected Alternative is a signalized intersection at NC 43 and NC 55. This intersection would include southbound dual left-turn lanes, a through lane, and a shared through- and right-turn lane; eastbound exclusive left-turn lane, a through lane, and an exclusive right-turn lane; northbound exclusive left-turn lane, two through lanes, and an

exclusive right-turn lane; and, westbound exclusive left-turn lane, a through lane, and two exclusive right-turn lanes.

The Selected Alternative would include a connector road between Bosch Boulevard and the NC 43 Connector near the two manufacturing plants at the south end of Bosch Boulevard with stop-control on the minor approach. This intersection would be configured with a westbound shared left- and right-turn lane, a southbound shared through- and left-turn lane and a through lane, and a northbound shared through- and right-turn lane and a through lane.

From the northern terminus at NC 55, the Selected Alternative turns southwest to a proposed grade separation over the NCRR tracks. Approximately one mile south of the railroad, an interchange is proposed with US 70. The interchange is located west of the Greenbrier community and parallels an existing powerline easement. Due to the interchange's proximity to residential development to the east, the eastbound entrance to US 70 is proposed as a loop on the southwestern side of the interchange in lieu of a ramp on the southeastern side. However, the NCDOT will purchase right-of-way for a future ramp in the southeast quadrant should it be warranted by future traffic volumes or after the construction of the (currently unfunded) NC 43 Connector south of US 70. The intersection for the westbound ramps would be configured with two southbound through lanes and an exclusive right-turn lane, two northbound through lanes and one exclusive left-turn lane, one exclusive westbound left-turn and two exclusive right-turn lanes. The eastbound ramp/loop intersection would be configured with two southbound through lanes and a free-flowing right-turn lane, two northbound through lanes, an exclusive northbound left-turn lane, two eastbound right-turn lanes, and an exclusive eastbound left turn lane.

South of US 70, Alternative F continues to parallel the powerline easement before curving to the east. The southern portion of this alternative joins existing Trent Creek Road and terminates at a signalized intersection at US 17. The existing intersection currently has dual through lanes westbound and eastbound on US 17 with exclusive left-turn and right-turn lanes on the approaches. Improvements to the intersection include configuring the southbound leg of the intersection with dual exclusive left-turn lanes and a shared through- and right-turn lane as well as adding an additional eastbound left-turn lane. The northbound leg of the intersection, which is the Ben E. Quinn Elementary School entrance, would be re-constructed and shifted slightly to the west to align the northbound approaches with the proposed intersection.

The Selected Alternative is proposed as a limited access facility. A total of four full movement intersections, constituting four access breaks on each side for a total of eight access points, are recommended. The four recommended locations, from north to south, are: 1) between NC 55 and the NCRR line, corresponding with the driveway to the BSH site; 2) approximately mid-way between the NCRR line and the proposed US 70 interchange as dictated by the vertical alignment; and, 3 & 4) two locations between US 70 and US 17, to be determined by the approval of future development adjacent to the corridor.

With the exception of the northernmost access point, it is recommended that future intersections implemented a "superstreet" configuration, which restricts left turns from the side streets. This configuration is not feasible at the northernmost intersection due to its proximity to NC 55. For the remaining intersections, this recommended configuration will accommodate traffic flow and safety along the NC 43 Connector by reducing the potential conflicts and delays associated with left turn movements from the side streets. To accomplish a left turn movement from a side street, vehicles will be required to make right turns onto the NC 43 Connector and subsequently make a u-turn at a designated median break.

Basis for Selection

Alternative F was selected on the following basis:

- The interchange at US 70 and the mid-portion of the alignment is farthest from the Greenbrier community. Approximately 80% of public comments from workshops and hearings opposed Alternatives D and D.1 due to its proximity to Greenbrier;
- The southern terminus utilizes an existing intersection at Trent Creek Road and US 17 and would provide the most efficient traffic operations. Because the Selected Alternative uses the existing Trent Creek Road intersection, the Ben Quinn Elementary School would have a full-movement, signalized intersection with US 17 and direct access to the NC 43 Connector. The Trent Creek subdivision would have direct access to the NC 43 Connector north of US 17. Alternative E requires elementary school (6 buses) and Trent Creek subdivision (205 residences) traffic to make U-turns on the four-lane section of US 17 to accomplish left turn movements;
- This alternative has No Effect on historic resources, as determined by the State Historic Preservation Office (HPO);

- There are less relocations than Alternatives D and E; and,
- Although there are higher wetland impacts, this alternative does not affect any high quality wetlands within the project study area.

Alternative F with the "original" northern terminus was selected over Alternative F.1 with the "optional" northern terminus on the following basis:

- It creates a continuous alignment for NC 43, whereas the optional terminus would require NC 43 traffic to traverse a "jogged" alignment through an additional intersection;
- It provides two access points for BSH Industries;
- It preserves the BSH Industries site for future development, which is more consistent with the proposed connector's purpose and need statement; and,
- Although there are potentially more relocations associated with the original northern terminus, most can be avoided through avoidance and minimization measures implemented during the design phase.

Impacts of the Selected Alternative

Descriptions of the anticipated impacts are provided in the following section. Table 1 summarizes the impacts for the Selected Alternative.

Relocations – The Selected Alternative would create five residential relocations and four business relocations. Relocations are anticipated to be less after implementation of avoidance and minimization measures implemented during final design.

Land Use – Given that the purpose of and need for the project is economic development of the region, the proposed connector would contribute to the alteration of existing land use patterns; however, the City of New Bern anticipates development within the project study area regardless of the proposed project's construction. Construction of the project would most likely alter the rate of growth and increase commercial and industrial development.

Farmlands – The project study area's soils are characterized as prime and statewide important farmlands. Based on a 500-foot corridor around the Selected Alternative, 275.8 acres of

farmland would be affected by the proposed project. EA Appendix A.4 contains the Farmland Conversion Impact Rating Form for the project, which resulted in a score of 137 for the Selected Alternative. This score is in compliance with the Farmland Protection Policy Act (FPPA), indicating that the farmlands in the corridor do not require additional consideration for protection. Further, the actual impacts based on construction limits would be less than the total amount of farmland within the 500-foot corridor.

Community Facilities – No community facility impacts are associated with the proposed project.

Churches and Cemeteries – The Greater Worship Center at the junction of NC 43 and NC 55 would be relocated by the construction of the Selected Alternative. Neither St. James AME Zion Church on SR 1223 (Staten Road) nor Tabernacle Baptist Church on US 17 or their cemeteries would be affected by construction of the proposed project.

Indirect and Cumulative Impacts – The project study area is anticipated to experience indirect and cumulative impacts (ICIs) from future development, although most of the growth and its associated impacts are anticipated to occur regardless of the proposed project's construction. The most substantial land use change would be the conversion of undeveloped land to predominantly residential use with some commercial and/or industrial uses. The most foreseeable long-term, induced impacts from development would be the fragmentation and loss of viable wildlife habitat and the degradation of water resources.

Environmental Justice – The Selected Alternative would displace two minority-owned residences out of a total of five residential relocations. Although there are minority relocations associated with the proposed project, there are not disproportionate effects, as these relocations do not exceed the impacts experienced by the general population. As mentioned previously, some relocation impacts may be avoided during the final design.

Utilities – The project would cross water, sewer, and power lines along NC 43, NC 55, NC 43/55, and US 17. Temporary construction impacts may occur during the construction of intersections at the project's termini. One large power line would be affected by the construction of the proposed project's interchange at US 70. Poles and lines would need to be raised to accommodate the ramps and loop in the two western quadrants of the interchange. Minor

relocations at the proposed project's termini, which would be determined during final design, may be required during construction. Interruptions to power service are not anticipated.

Hazardous Material Sites/Underground Storage Tanks – The Selected Alternative would require the relocation of the TradeMart gas station on NC 43 and the removal of its underground storage tanks (USTs).

Archaeological and Historic Architectural Resources – The HPO determined that the Selected Alternative would have **No Effect** on the Elijah Farrow Farm. There are no impacts to archeological resources associated with the proposed project.

Air Quality – The 1-hour and 8-hour carbon monoxide standards, as established by the National Ambient Air Quality Standards, are 35 parts per million (ppm) and 9 ppm, respectively. Based on predicted concentration levels, neither the 1-hour or 8-hour criteria would be exceeded by the proposed project.

Noise – The Selected Alternative would create 56 impacts. To minimize these impacts, a noise wall is proposed along the western boundary of the Trent Creek subdivision.

Mineral Resources - The proposed project would not affect the operation of the Martin Marietta Clarks Quarry. No impacts to mineral resources are anticipated.

Water Quality – The proposed project would create secondary impacts to water quality by creating nonpoint source pollution along the highway corridor. Chemicals originating from vehicle exhaust or fluids can pollute receiving waterbodies. The project study area is within the Neuse River Sensitive Waters Management Strategy, which requires a higher level of stormwater management than in other areas of North Carolina. Implementation of these requirements would minimize nonpoint source pollution.

Biotic Communities – The Selected Alternative would affect 93.8 acres of Basic Mesic Forest and Managed Pine Plantation communities, based on the project's 220-foot right-of-way. There are no impacts to aquatic communities associated with the proposed project.

TABLE 1
SUMMARY OF IMPACTS WITHIN PROPOSED RIGHT-OF-WAY

| EVALUATION FACTOR | ASSOCIATED IMPACT | | | |
|--|--|--------------------|--|--|
| CONSTRUCTION FACTORS | | - Avidosan | The state of the s | |
| Mainline Length (miles) | 4.64 | | | |
| Intersections and Interchanges | 3 | | | |
| Railroad Crossings | 11 | 1 | | |
| Cost Estimates ¹ | Section A | Section B | Sections A & B | |
| Construction Cost (millions) | \$11,770,000 | \$22,380,000 | \$34,150,000 | |
| Right of Way Cost (millions) | \$1,175,000 | \$5,000,000 | \$6,175,000 | |
| Total Cost (millions) | \$12,945,000 | \$27,380,000 | \$40,325,000 | |
| SOCIOECONOMIC FACTORS | NECK WEIGHT | SALE DE OF | THE STATE OF | |
| Residential Relocations ² [Minority-Owned] | 5 [2] | | | |
| Business Relocations ² | 4 | | | |
| Schools/Parks Impacted | 0/0 | | | |
| Churches Displaced/Cemeteries Affected | 1/0 | | | |
| Receptors Impacted by Noise 3 | 56 | | | |
| INFRASTRUCTURE FACTORS | () () () () | | TANK TO THE STATE OF | |
| Transmission Line Crossings/Natural Gas Line Crossings | 2/0 | | | |
| Water/Sewer Line Crossings | 2/1 | | | |
| CULTURAL RESOURCE FACTORS | THE RESIDENCE OF | 特別的公司管理的 20 | | |
| Potential/Recorded Archaeological Sites | 0/0 | | | |
| Historic Properties Affected | | 0 | AL AND DOOR | |
| NATURAL RESOURCE FACTORS | THE PARTY OF THE P | WENT AND THE PLAN | | |
| Protected Species Impacted | 0 | | | |
| Stream Crossings/ Stream Impacts – linear feet | 0/0.0 | | | |
| Upland Natural Systems – acres | 93.8 | | | |
| Wetland/Aquatic Systems – acres ⁴ | 4.3 | | | |
| Riparian Buffer Impac's – acres | | 0.0 | | |
| LAND USE FACTORS | 200000000000000000000000000000000000000 | PARTY AND A STREET | | |
| Residential – acres | 1.8 | | | |
| Commercial – acres | 3.3 | | | |
| Institutional – acres ⁵ | 0.5 | | | |
| Industrial – acres | 2.7 | | | |
| Recreational – acres | 0.0 | | | |
| Agricultural/Silvicultural – acres ⁶ | 138.2 | | | |
| Open/Maintained – acres ⁷ | | 10.2 | | |
| PHYSICAL FACTORS | | | | |
| Floodplains - acres | | 0.0 | | |
| Farmland – acres 8 | 275.8 | | | |
| Hazardous Materials Sites | 1 | | | |
| Exceedances of CO NAAQS | | 0 | | |

Notes: The propose right-of-way for the majority of the project is 220 feet. There are no impacts to: Section 4(f) properties or federal lands; existing or proposed greenways; water supply watersheds; significant natural heritage areas; wildlife refuges or gamelands; high quality resources; or, Areas of Environmental Concern (AECs) as defined by the Coastal Area Management Act (CAMA) of 1974.

- 1 Section A is the portion of the Selected Alternative from the southern terminus at US 17 to just south of the proposed interchange at US 70. Section B is the portion of the Selected Alternative from and including the interchange at US 70 to the northern terminus at NC 43/55. (Only Section B is currently funded.)
- 2 Residential and business relocations would be less after implementation of avoidance and minimization measures during design finalization.
- 3 The No-Build Alternative includes 58 noise impacts. A noise wall is proposed along the western boundary of the Trent Creek subdivision.
- 4 Wetland impact quantities are based on the project's construction limits, which are defined as slope stake boundaries plus an additional 10 feet.
- 5 Includes government, churches, and schools.
- 6 Majority of land is managed pineland.
- 7 Disturbed or abandoned urban land.
- 8 Prime, Unique, or Statewide Important Farmland impacts based on 500-foot corridors for each Build Alternative.

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T.I.P. NO. R-4463 W.B.S. NO 35601.1.1

Administrative Action
State Finding of No Significant Impact

August 2005

Documentation Prepared by: STANTEC CONSULTING SERVICES INC. RALEIGH, NORTH CAROLINA ESSIDIO NO PROPERTIES DE LA CONTRACTION DEL CONTRACTION DE LA CONT

8/22/05

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8/30/05 Date

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PROJECT COMMITMENTS

NC 43 CONNECTOR FROM NC 55 TO US 17

CRAVEN COUNTY, NORTH CAROLINA

STATE PROJECT NO. 6.804857 T.I.P. NO. R-4463

In addition to the Section 404 Permit Conditions, Nationwide Permit Conditions, Regional Conditions, State Consistency Conditions, Section 401 Water Certification Conditions, CAMA Consistency Conditions, and measures detailed in NCDOT's Best Management Practices for the Protection of Surface Waters, the following special commitments have been agreed to by the NCDOT:

Roadway Design Unit

 In lieu of a ramp in the southeast quadrant of the interchange at US 70, the interchange will be constructed with a ramp/loop configuration in the southwest quadrant. However, the NCDOT will purchase right-of-way for a future ramp in the southeast quadrant should it be warranted by future traffic volumes or after the construction of the (currently unfunded) NC 43 Connector south of US 70.

Roadway Design Unit & Project Development & Environmental Analysis Branch

- 1. To minimize noise impacts, a noise wall is proposed along the western boundary of the Trent Creek subdivision, just north of US 17. This commitment is subject to a detailed design noise study and additional public involvement efforts.
- 2. Wildlife crossing(s) for small animal passage will be constructed south of US 70 along the NC 43 Connector. The exact location(s) and sizing of wildlife crossing(s) will be addressed during the final design phase. Animal passage design will be subject to approval by the US Fish and Wildlife Service and the NC Wildlife Resources Commission.

Waters of the United States – The Selected Alternative would impact 4.3 acres of wetland, based on the project's construction limits. There are no stream crossings associated with the proposed project.

Rare and Protected Species – The proposed project would not affect any federal or state protected species.

Riparian Buffers – There are no impacts to riparian buffers associated with the proposed project.

Preliminary Cost Estimate – The estimated construction and right-of-way costs for the Selected Alternative are \$34,150,000 and \$6,175,500, respectively. Table 1 shows the cost estimates for each section of the Selected Alternative.

E. MEASURES TO AVOID AND MINIMIZE HARM

This section discusses the measures taken to minimize impacts and to integrate agency concerns identified during coordination (i.e., scoping and the NEPA/404 Merger Process) for the NC 43 Connector.

Direct Impact Avoidance & Minimization Measures – To minimize direct impacts, preliminary designs were developed to minimize the conversion of undeveloped land by paralleling property lines and existing development where feasible; wetland impacts were minimized by adjusting alignments and slopes; relocations were minimized by adjusting alignments and slopes; and, impacts to the powerline near the US 70 interchange were minimized. A noise wall is proposed for the Selected Alternative west of the Trent Creek subdivision.

Indirect and Cumulative Impact (ICI) Avoidance & Minimization Measures – To assist the City of New Bern in identifying wetlands and minimizing future wetland impacts, the NCDOT provided digital files of the delineated wetlands to the City after field surveys were completed in the summer of 2003.

An ICI Assessment was conducted to identify potential long-term, induced impacts as well as constraints and considerations for future development. The assessment also contained recommendations for future land use, consistent with local land use plans, and stressed the need for coordinated planning efforts. The recommendations were presented to the City of New

Bern in a meeting on October 12, 2004. The City responded in a letter, dated December 10, 2004, stating, among other things, that the City supports the recommendations and that the relatively undeveloped status of the project study area lends itself to coordination between the city, state, and others. EA Appendix A.8 contains the City's letter.

After the comment period for the EA had closed, the NCDOT coordinated with the City of New Bern in May and June 2005 on ICI issues raised in agency comments on the EA. In response to agency concerns regarding future drinking water supply and quality issues, the City issued a formal response and provided the City's 2002 Local Water Supply Plan and an Environmental Assessment Scoping Report for the proposed water treatment plant and well field, which was provided to the NEPA/404 Merger Team on June 16, 2005.

The NCDOT held a second meeting with City of New Bern officials on June 22, 2005 to discuss concerns raised by the NEPA/404 Merger Team at the June 16, 2005 meeting. In response to the Team's concerns, the City of New Bern developed a formal response to questions posed by the Merger Team, coordinated with Craven County to extend the City's extra-territorial jurisdiction (ETJ) to include most of the project study area, held a public hearing for the ETJ extension, and created a Land Development Plan (LDP). The LDP is discussed further in Section F. The City presented its proactive planning efforts to the NEPA/404 Merger Team on July 13, 2005.

Compensatory Mitigation – Compensatory mitigation for the Selected Alternative will be provided through the NCDENR Ecosystem Enhancement Program (EEP). Planning and implementation of mitigation will be accomplished in accordance with the terms of the Memorandum of Agreement (MOA) between the USACE, NCDOT, and NCDENR, as signed into effect on July 22, 2003. In all cases, compensatory mitigation will be provided in sufficient quantity and quality to offset impacts in accordance with the requirements of the Clean Water Act of 1970, as amended. Compensatory mitigation will be provided for 4.3 acres, according to the current EEP fee schedule.

F. MONITORING AND ENFORCEMENT PROGRAMS

Coordination will be maintained with regulatory and resource agencies during final design, permitting, right-of-way acquisition, and construction to ensure that the avoidance, minimization, and compensatory mitigation commitments will be initiated.

The NCDOT, through the Clean Water Act (CWA) Section 404/401 permitting process and Coastal Area Management Act (CAMA) consistency process will ensure that all project commitments are duly implemented before, during, and after, project construction.

Wetland impacts will be regulated by the US Army Corps of Engineers (USACE), in cooperation with the USFWS and the US Environmental Protection Agency (USEPA), through the CWA Section 404 permitting process. Issuance of a federal Section 404 permit requires a state Section 401 Water Quality Certification, which is administered by the NC Division of Water Quality.

Section 307 of the federal Coastal Zone Management Act (CZMA) of 1972 states that if an action is performed in a coastal zone (i.e., coastal county) and requires a federal permit, the state is allowed to require that the activity comply with the state's coastal management program even if the actions do not require a permit under state law (16 USC 1456). If an activity is found consistent with the NC Coastal Management Program (CMP), CAMA regulations, local land use plans, and other state regulations, a "consistency determination" is issued by the NC Division of Coastal Management (DCM). The NCDOT will comply with the DCM's interpretation of the CZMA's consistency requirements.

This project requires a State Stormwater Permit, due to the fact that it is in one of the state's coastal counties, and requires an Erosion and Sediment Control Plan (15A NCAC 2H .1000). Among other criteria, the conditions of this permit require the minimization of impervious surface and the use of Best Management Practices (BMPs) to minimize water quality impacts.

G. COMMENTS ON THE ENVIRONMENTAL ASSESSMENT

The EA was finalized on March 21, 2005. The review period for the EA closed on May 16, 2005. NCDOT responses to comments are contained in Appendix B.

H. REVISIONS AND CORRECTIONS

Since the finalization of the EA, the following items were revised or corrected:

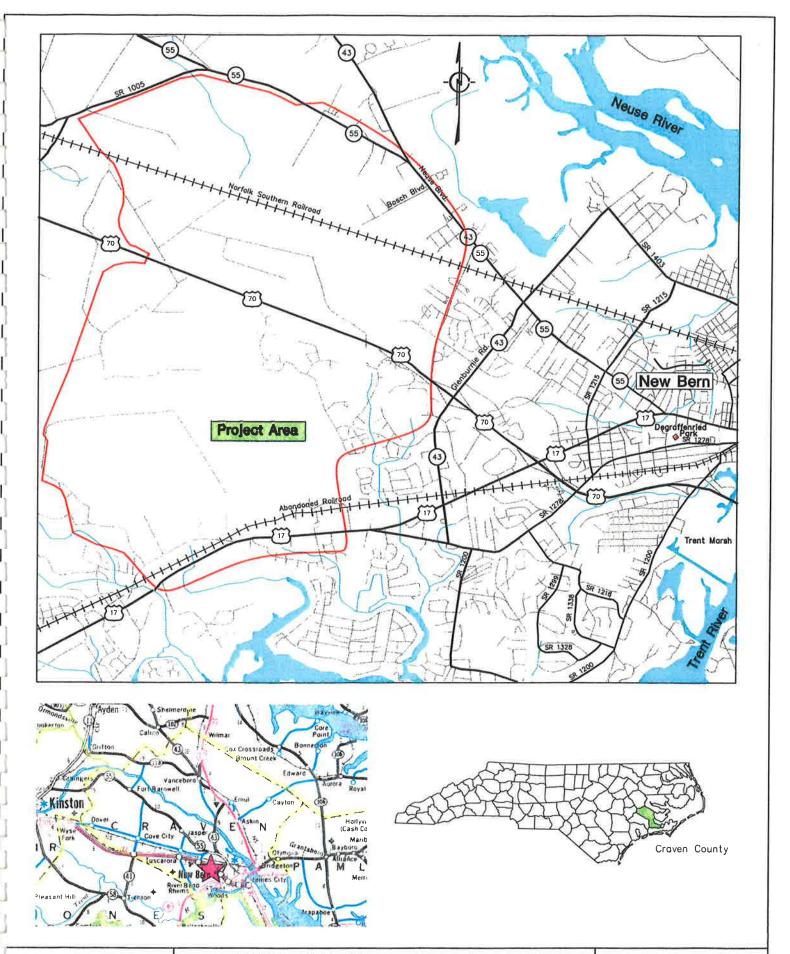
A resolution of the Craven/Pamlico/Jones Transportation Committee, dated December 7,
 2004, was omitted from inclusion in the EA. The resolution is included in Appendix A;

- EA Table 4.19.1 should reflect the same number of receptors impacted by noise shown in EA Table 4.8.3 and discussed in EA Section 4.8; and,
- After the Noise Impacts Analysis Report (NCDOT, 2004) was finalized, NCDOT issued a new policy on noise abatement. Therefore, in June 2005, the reasonableness of noise walls was re-evaluated using the updated guidelines. The re-evaluation found that the noise wall investigated for Alternatives D and D.1 near the east side of the Trent Creek subdivision, originally found to exceed the reasonableness guidelines, would be considered reasonable. There remained no feasible noise wall locations for Alternative E and E.1. For Alternative F and F.1, the noise wall originally recommended for consideration remains reasonable.
- Appendix A includes a letter from the NC Department of Cultural Resources, dated July 19, 2005, stating that the HPO concurs with the findings of the Phase II (Intensive Level) Architectural Survey Report (NCDOT, 2005b) conducted for the NC 43 Connector. This report was referenced during the preparation of the FONSI.

I. CONCLUSION

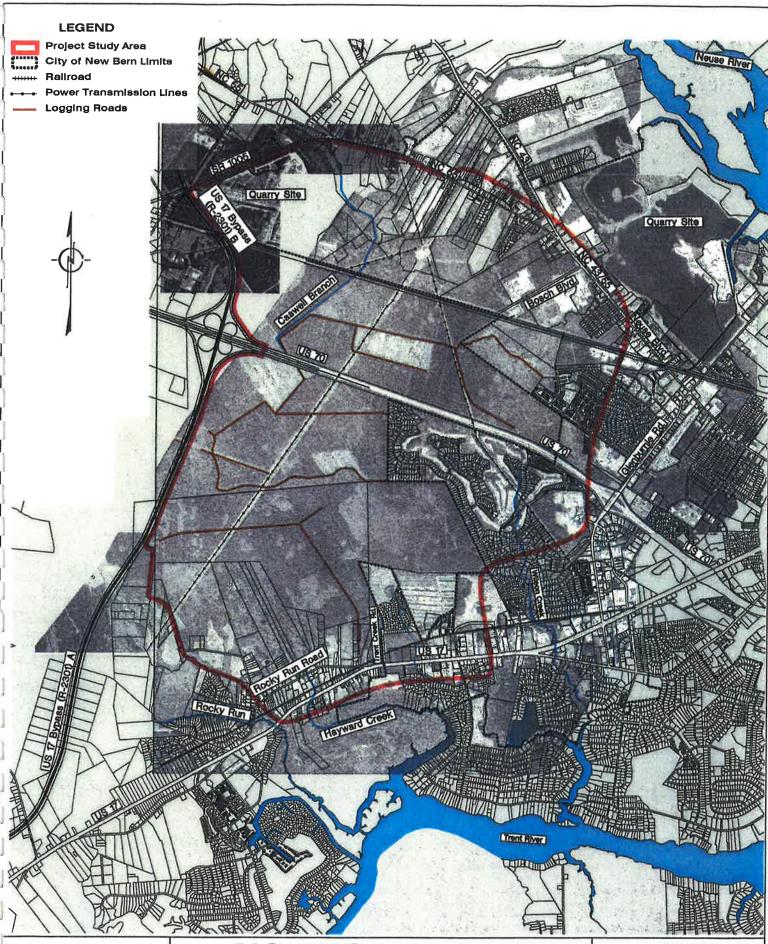
To achieve the purpose of and need for the project and for the reasons discussed in this FONSI, the NCDOT hereby approves the selection of Alternative F, with all incorporated project commitments, for the final design and eventual construction of the NC 43 Connector from NC 55 to US 17 in Craven County, North Carolina.

EXHIBITS



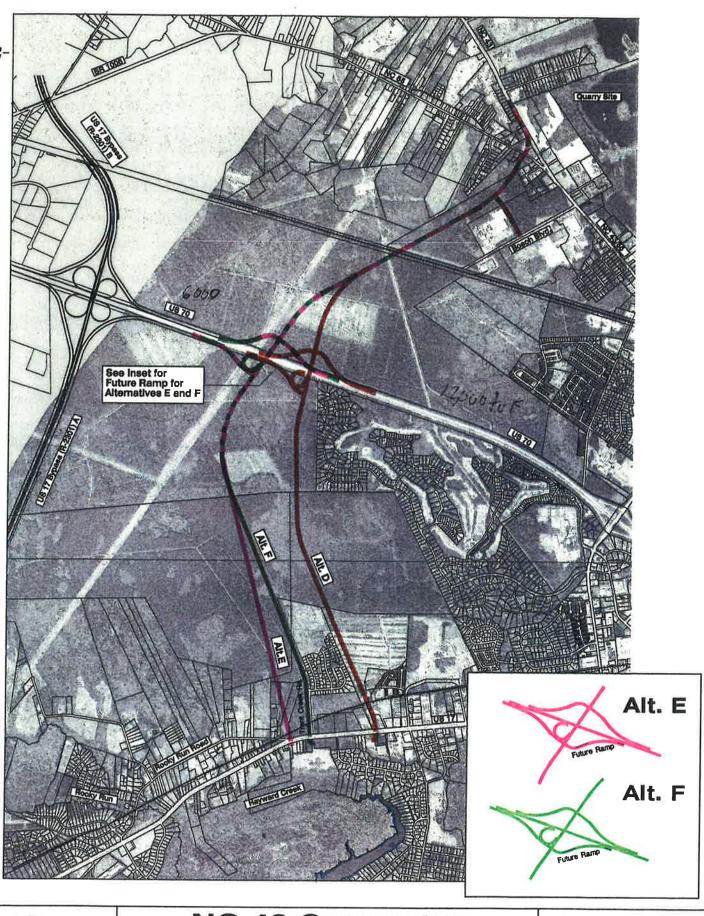


NC 55 to US 17 - TIP No. R-4463 Craven County, North Carolina Project Location NTS Exhibit 1



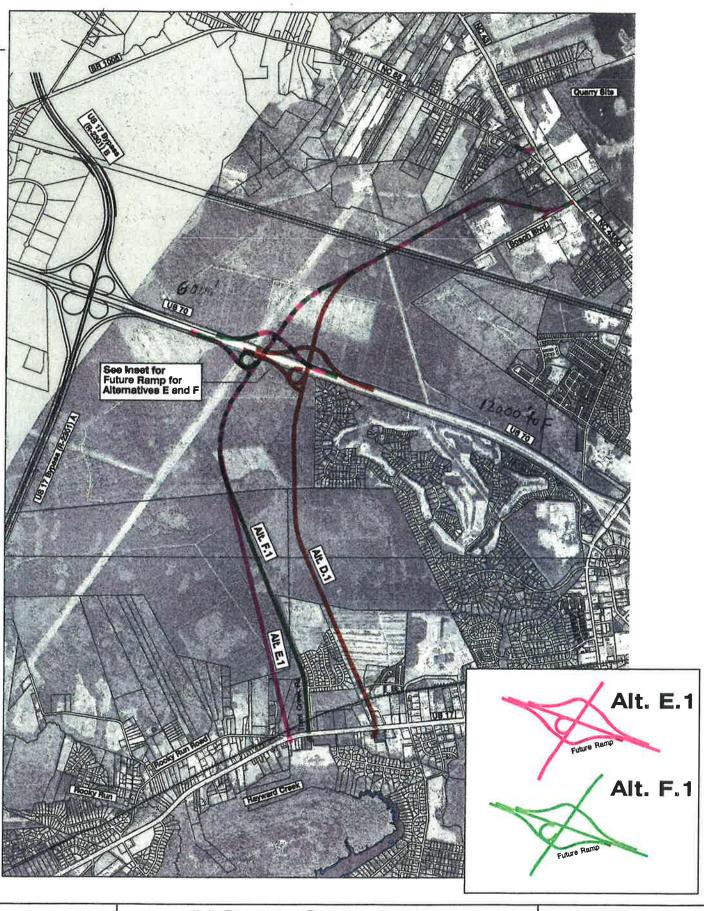


NC 55 to US 17 - TIP No. R-4463 Craven County, North Carolina Project Study Area NTS Exhibit 2



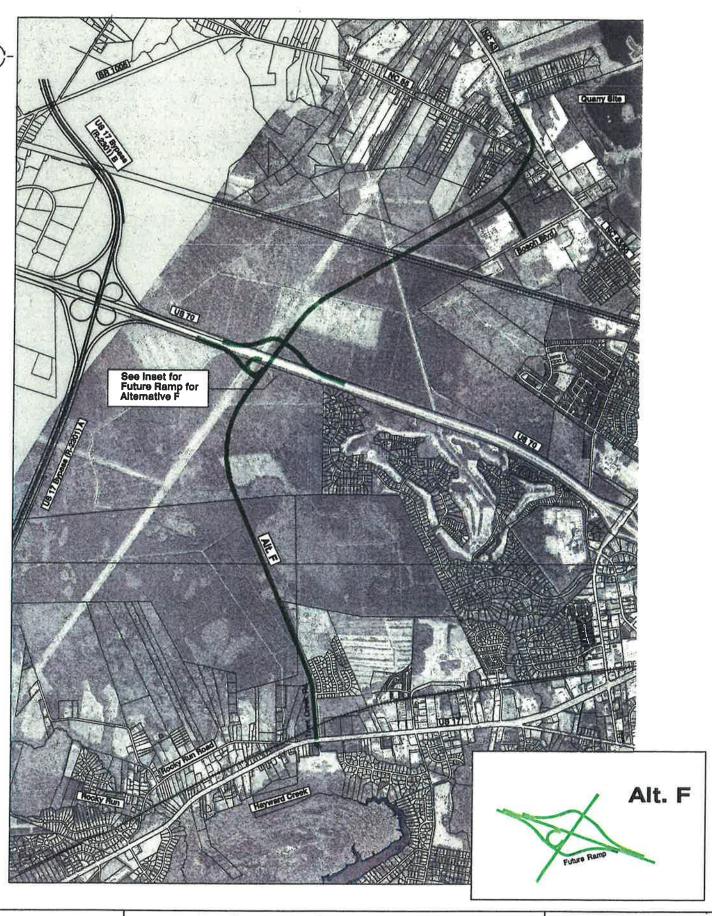


NC 55 to US 17 - TIP No. R-4463 Craven County, North Carolina Build Alternatives Alts. D, E, F Scale: 1" = 3000' Exhibit 3a



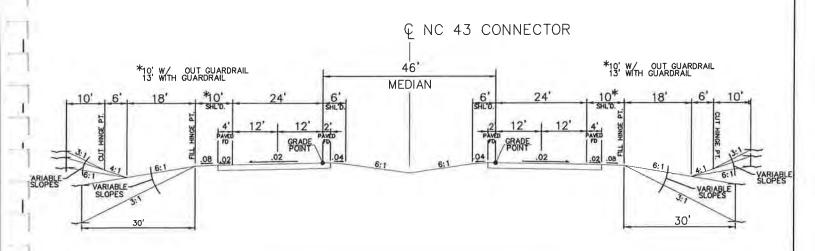


NC 55 to US 17 - TIP No. R-4463 Craven County, North Carolina Build Alternatives Alts. D.1, E.1, F.1 Scale: 1" = 3000' Exhibit 3b



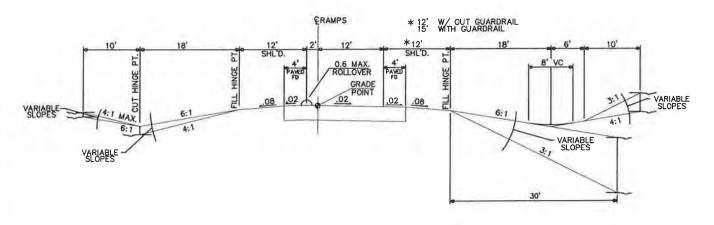


NC 55 to US 17 - TIP No. R-4463 Craven County, North Carolina Selected Alternative Alternative F Scale: 1" = 3000' Exhibit 4



FOUR LANE DIVIDED SECTION

-L- LINE TYPICAL SECTION NO. 1

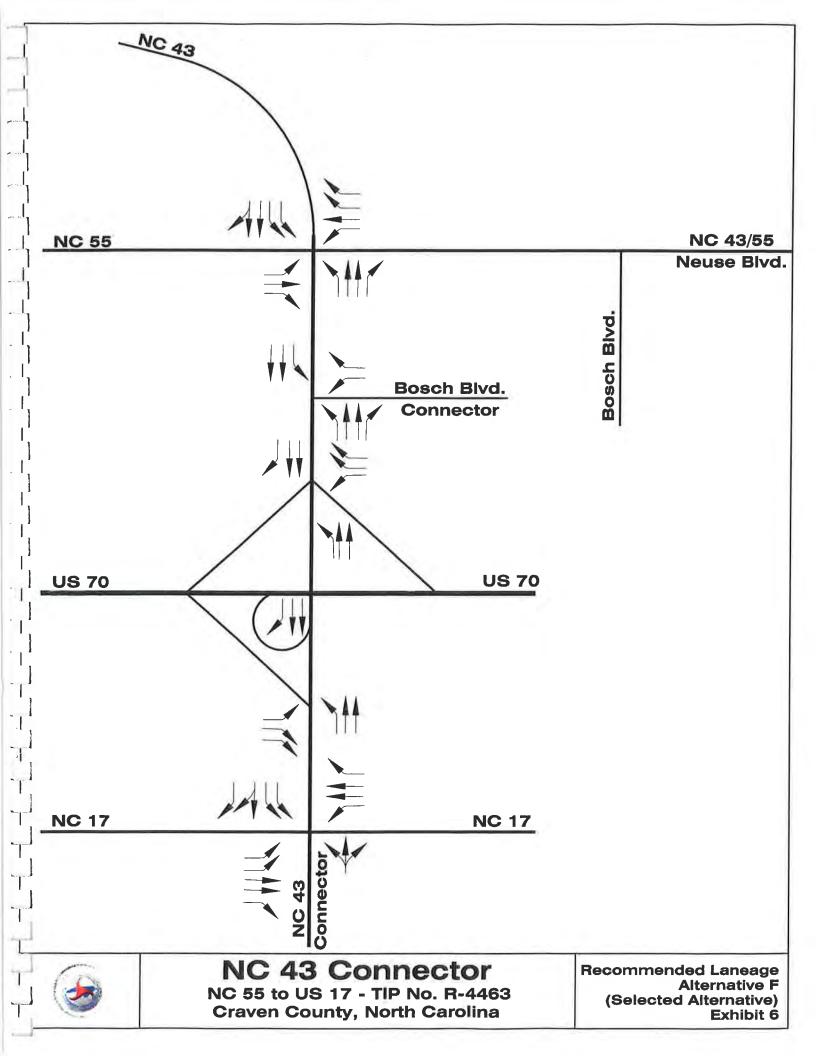


RAMP TYPICAL SECTION NO. 2



NC 43 Connector
NC 55 to US 17 - TIP No. R-4463
Craven County, North Carolina

Typical Sections NTS Exhibit 5



APPENDIX A

CORRESPONDENCE AND COORDINATION

- Transport

S

Committee Chairman, J. Troy Smith, Jr.
Ward and Smith, P.A.

Thomas Bayliss, III
Mayor, City of New Bern
Harold Blizzard
Manager, Craven County
Roy Brinson, Sr.
Commissioner, Pamlico County
Daniel T. DeBow
Retired

George W. Griffin Mayor, City of Havelock

Walter B. Hartman, Jr. Manager, City of New Bern

Robert L. Mattocks, II Jenkins Gas & Oil Co.

Larry P. Meadows Manager, Jones County

Tim Owens Manager, Pamlico County

Beverly M. Perdue Lt. Governor, State of North Carolina

> Horace B. Phillips Chairman, Jones County Commissioners

Thomas A. Phillips Manager, City of Havelock

Lonnie E. Pridgen, Jr. Lonnie Pridgen Real Estàte

Leon Staton Commissioner, Craven County

> J. Harold Talton Retired

Joseph E. Thomas Joseph E. Thomas Development, Inc.

> Scott E. Thomas Senator, 3rd District

Alice Underhill Representative, 3rd District

William L. Wainwright Representative, 79th District

Invitees:

Michael W. Avery Dir. Com. Dev. City of New Bern

> Lt. Col. Dennis Barham USMC, MCAS Cherry Point

Donald L. Baumgarner, Jr. Dir. Planning, Craven County

Marvin K. Blount, III, Esq. Member, N.C. Dept. of Transportation

James Creech Chairman, Craven Reg. Airport Auth.

James T. Davis, III Exec. Dir. Craven County Economic Development Commission

Roy Fogle Economic Developer, Jones County

> Lauren L. Hillman U.S. Forest Service

C. E. (Neil) Lassiter, Jr., P.E. N.C. DOT Division Engineer

Cameron W. McRae lember, N.C. Dept. of Transportation

Chris Padgett Transportation Planner

Susan L. Moffat-Thomas Executive Director, Swiss Bear, Inc.

> P.O. Box 867 c/o Ward and Smith, P.A. New Bern, NC 28563-0867 Phone (252) 672-5400 Fax (252) 672-5477

Craven/Pamlico/Jones Transportation Committee

December 10, 2004

Mr. Khaled Alakhdar NC Department of Transportation Project Development & Environmental Analysis Branch 1548 Mail Service Center Raleigh, NC 27699-1548

RE: Highway 43 Connector (Project R-4463)

Dear Mr. Alakhdar:

Mr. John Wadsworth has advised us that you are now the contact for the above-referenced project. We are pleased that you are on board and offer any assistance to you that you may desire from our area.

I am enclosing for your review and information a copy of resolutions unanimously passed by our Transportation Committee at our meeting on December 7, 2004. I would appreciate the opportunity, at your convenience, to discuss with you the connection alternatives to Highway 55 and also the South Leg of the Connector.

Kindest regards.

Very truly,

J. Troy Smith, Jr.

JTS:awg NBMAIN\613910\1

cc: Craven/Pamlico/Jones County Transportation Members

Mr. Cameron W. McRae

Mr. Lyndo Tippett

Mr. Neil Lassiter

Jornmittee Chairman, J. Troy Smith, Jr. Ward and Smith, P.A.

Thomas Bayliss, III
Mayor, City of New Bern
Harold Blizzard
Manager, Craven County
Roy Brinson, Sr.
Commissioner, Pamlico County
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Lt. Governor, State of North Carolina Horace B. Phillips Chairman, Jones County

> Thomas A. Phillips Manager, City of Havelock

Lonnie E. Pridgen, Jr. Lonnie Pridgen Real Estate

Leon Staton Commissioner, Craven County

> J. Harold Talton Retired

Commissioners

Joseph E. Thomas Joseph E. Thomas Development, Inc.

> Scott E. Thomas Senator, 3rd District

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Invitees:

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Craven/Pamlico/Jones Transportation Committee

December 7, 2004

Resolution of the Craven/Pamlico/Jones Transportation Committee

WHEREAS, the Craven/Pamlico/Jones Transportation Committee ("Transportation Committee") has reviewed the plans for the North Leg of the NC 43 Connector (Project R-4463) connecting Highway 55 with U.S. Highway 70, which project is a part of the 2001 commitment by the State of North Carolina to B/S/H/ in consideration for the B/S/H/ expansion of its manufacturing facility adjacent to the project; and,

WHEREAS, the Transportation Committee has been advised by the North Carolina Department of Transportation ("DOT") that Project R-4463 is proceeding on schedule and will be completed as committed by the State of North Carolina; and,

WHEREAS, the Transportation Committee desires to express its appreciation to Secretary Tippett and the DOT for expeditious action in planning and undertaking of construction of Project R-4463; and,

WHEREAS, the Transportation Committee has examined in detail the DOT's two alternative connections of Project R-4463 to NC Highway 55, and has discussed these alternatives with DOT representatives, officials of B/S/H/, Amital Spinning, Craven County, the City of New Bern, and our local legislative delegation; and,

WHEREAS, the Transportation Committee and the local representatives agree unanimously that the "western fork" of the two alternatives presented provides the least congestion and enables the use of adjacent property for economic development, thereby justifying reported necessary meditation of a limited amount of wetlands involved with the "western fork" location; and,

WHEREAS, B/S/H/ in the last few weeks has announced plans for a new one million square foot logistic center; and B/S/H has stated that the area adjacent to its manufacturing facility on the North Leg of the NC 43 Connector is one of the sites under consideration, the final location be selected in early 2005; and,

WHEREAS, B/S/H/ representatives have advised the Transportation Committee and representatives of Craven County and the City of New Bern that the Craven County site under consideration for the logistic center would be favored provided that the NC 43 Connector is extended from the current terminus of the North Leg at U.S. Highway 70 on to connect with U.S. Highway 17 (South Leg) due to B/S/H/'s anticipated truck traffic volume and necessary routes to service the logistic center; and,

WHEREAS, the Transportation Committee has been advised previously by DOT that all permits necessary for this South Leg of the NC 43 Connector Project have been secured by DOT and the only impediment to commencing construction is funding.

NOW, THEREFORE, be it hereby resolved, that the Craven/Pamlico/ Jones Transportation Committee unanimously resolves as follows:

- (1) Appreciation and thanks is expressed to Secretary Tippett and the North Carolina Department of Transportation for diligent and expeditious planning, design and undertaking of construction of the North Leg of the NC 43 Connector (Project R-4463) pursuant to the commitment of the State of North Carolina to B/S/H/, which proceeded with construction of its manufacturing facility in reliance upon the State's commitment.
- (2) The North Carolina Department of Transportation is requested to select the "western fork" alternative to the North Leg of the NC 43 Connector (Project R-4463) connecting to NC Highway 55 as this alternative will be provide the least traffic congestion for a location that will develop extremely high traffic counts upon completion of this project. Additionally, the "western fork" will not impair the use of the adjacent manufacturing sites currently under consideration for additional economic development.
- urged to commit to the construction of the South Leg of the NC 43 Connector from U.S. Highway 70 to U.S. Highway 17 while the permits for the construction of same remain effective and to make such commitment expeditiously in order that this area and the State of North Carolina can secure the commitment of B/S/H/ for the construction and operation in Craven County of the proposed new one million square foot B/S/H/ logistics center.

Respectfully submitted.

J. Troy Smith, Jr. Chairman

JTS:eao NBMAIN\613837\1

1.0 INTRODUCTION

The City of New Bern proposes to upgrade and expand its water supply system. By 2018, the State of North Carolina, under the Central Coastal Plain Capacity Use Area (CCPCUA) Rule, will require a 75% reduction in water supply from the Cretaceous Aquifer (from current Approved Base Rates). As a result, the City will not be able to meet its Average Day and Max Day demands in the future without additional water supply.

2.0 FUTURE DEMAND PROJECTION

The City estimates approximate increases from the 2002 New Bern Water Supply Plan of the following: 1.3 MGD by 2010; 2.1 MGD by 2020; and 3.2 MGD by 2030. In addition, well production supply will be reduced 25% by 2008; 50% by 2013; and 75% by 2018. Together this will result in a total deficit of approximately 5.0 MGD by 2018. Therefore, the City will require additional water supplies to satisfy potable water consumption and human health concerns to offset the 75% reduction required by the Central Coastal Plain Capacity Use Rule (CCPCUA). The proposed 5.0 MGD water treatment plant would be expandable to 7.5 MGD in 2018, which should provide adequate water supply until approximately 2030.

3.0 EXISTING WATER SUPPLY ANALYSIS

3.1 Supply

The City of New Bern's current water supply is groundwater taken from the Black Creek/
Pee Dee Aquifer. Water is pumped from the aquifer by five wells located in Cove City
which are operated by the City of New Bern. Raw water is pumped from the well field
to a 1 MG tank located in Cove City.

3.2 Storage

Treated water is stored in the ground storage tanks prior to being pumped into the distribution system and elevated tanks. The City currently has four elevated storage tanks that provide approximately 1,750,000 gallons of storage. The elevated storage tanks provide sufficient storage capacity and maintain system pressures.

3.3 Transmission and Distribution

The transmission system from the well field to the 1.0 MG ground storage tank consists of ductile iron pipe assumed to be in good condition. The transmission system from Cove City's 1.0 Ground Storage Tank to Glenburnie's 4.0 MG Ground Storage Tank consists of a 30-inch prestressed concrete pressure main which has experienced numerous leaks since its installation in 1968.

The distribution system consists of approximately 250 miles of 2- through 20-inch diameter distribution lines. Pipe material is predominantly cast iron pipe with some ductile iron and asbestos-cement pipe.

3.4 Water Quality

Water quality for the existing Cretaceous wells is excellent, requiring only disinfection to meet water quality standards.

4.0 HYDROGEOLOGIST REVIEW AND RECOMMENDATIONS

A report was prepared by GMA entitled Resource Potential of the Castle Hayne Aquifer in the Vicinity of New Bern, North Carolina, dated February 25, 2004. This report concluded that a Castle Hayne well field could be located west of New Bern. It was concluded that this well field could produce 5.0 MGD from wells spaced approximately 3,000 feet apart. In a subsequent letter dated March 22, 2004, GMA confirmed the well

spacing of 3,000 feet with well yields of 600 gpm. This evaluation was based on a Castle Hayne production well constructed in 2003.

5.0 NEED FOR PROJECT

The City is required to provide an adequate, dependable, and safe source of water for its residents. Currently the City depends on five existing wells for their water supply. These five wells can produce approximately 5 MGD when pumped 12 hours per day. This will not be sufficient to meet the City's increasing demand for safe, potable water in order to comply with CCPCUA Rule requirements.

5.1 CCPCUA Requirements

The primary operating concern for the City is the mandatory reduction of current well field production in order to comply with CCPCUA's requirements. These requirements will result in a reduction of existing well field water supply by 25% in 2008; 50% in 2013; and 75% in 2018. Without additional water supply, by 2008 the City will be unable to meet the demands of its residents without violating CCPCUA's requirements.

6.0 REVIEW OF ENVIRONMENTAL ISSUES

The proposed project improvements include: acquiring land for new well sites; drilling test wells and new production wells; adding interconnecting raw water mains; and constructing a new water treatment facility with associated backwash waste treatment and disposal; ground storage tank; and finished water main. All water mains will be installed within NCDOT's right-of-way or on private property, causing little or no disturbance of previously undisturbed land.

Phases of construction may produce short-term environmental impacts. Temporary increase in the noise associated with construction machinery will be experienced during construction. This noise will only have a localized and temporary affect as construction progresses.

Implementation of sedimentation and erosion control measures will minimize impacts on stormwater systems and surface waters.

The water plant backwash waste discharge will include brine. The backwash brine discharge is proposed to Class SC waters of the Neuse River. The discharge will be approximately 0.5 MGD at 7,000 ppm salinity. The discharge will be combined with the existing NPDES discharge diffuser from the City of New Bern WWTP, or will be a new independent NPDES discharge. An evaluation will be conducted to determine the most suitable option.



| Post-He Fax Note 12/6 7671 | Date 6-2-05 pages // |
|----------------------------|----------------------|
| To Musican Hardman | From Greg Churchill |
| COLDER City of Mes Bern | Co. RIVES - ASSOC. |
| Phone # 255-639-2700 | Phone # 252-252-4/35 |
| Fax # 252-636-1848 | Fax 252-752-3414 |

June 2, 2005

Mr. Walter B. Hartman, Jr., City Manager City of New Bern P.O. Box 1129 300 Pollock Street New Bern, North Carolina 28560

SUBJECT:

City of New Bern WTP Test Wells Project

Response to EPA Comments Regarding Water Supply Issues

Rivers File 21304 C

Dear Mr. Hartman:

The following questions were posed in an email from Paul Koch to Danny Meadows dated May 27, 2005, regarding New Bern's water supply issues. Mr. Koch requested a written response from the City to include in an environmental document, in order to keep the NC 43 Connector project moving forward. NC DOT's questions are in bold type below, followed by our response:

Ouestion #1:

NC DOT requested detailed information on the potential for contamination and salt water intrusion of Castle Hayne aquifer.

The City plans to draw raw water from the Lower Castle Hayne aquifer, which is protected by upper soils and the upper portion of the Castle Hayne. There is a confining layer between the Upper and Lower Castle Hayne aquifer which will help protect the water-bearing zones from 195 to 255 feet below the ground surface.

Hydrogeologists at Groundwater Management Associates have indicated that there is not a significant risk of saltwater intrusion in the Castle Hayne aquifer west of New Bern at the targeted water-bearing zone.

Ouestion #2;

How will the City respond to additional and costly treatment methods to remove toxic chemicals and salt?

The City of New Bern is constructing test wells to sample and test the water quality for the proposed water treatment plant. The water quality from the three (3) test wells completed at this time indicates that the water can be adequately treated with: 1) conventional greensand pressure filter to remove iron and manganese; 2) zeolite softeners to remove hardness, and 3) chloramines to control disinfection byproducts.

There is no indication in the test wells of toxic chemicals or saltwater intrusion.

Letter to Walter Hartman re New Bern Water Supply Issues
June 2, 2005

Page 2

The new water treatment plant will operate in conjunction with the existing Cretaceous wells that will remain in operation, but at a reduced level. The Cretaceous wells could all be used in an emergency such as contamination of a Castle Hayne well.

Onestion #3:

If available, provide a copy of the City's hazardous spill action plan, or other type of management plan to minimize spill effects on groundwater.

A copy of the city's hazardous spill action plan or management plan may be available from the appropriate City Department. The City may prepare a wellhead protection plan to address these items, if needed.

Question #4:

Provide a copy of the 2002 Local Water Supply Plan

A copy of the 2002 Local Water Supply Plan is attached. See "Appendix A".

Question #5:

If not covered above, discuss any plans to utilize surface water supplies or to begin an aquifer recharge program.

There are no plans to utilize a surface water supply at this time. The Neuse River is classified as saltwater for a significant distance upstream of New Bern. A raw water intake would have to be located a significant distance to be free from saltwater in dry summer months when winds drive saltwater up-river. The City is constructing an aquifer recharge basin that will affect the Upper Castle Hayne aquifer. This facility would not have a significant effect on the proposed water treatment well field due to proximity and the aforementioned confining layer.

Sincerely.

Gregory J. Churchill, P.E. Senior Project Manager

GJC/st

Enclosure: 2002 New Bern Water Supply Plan

cc: David Muse, P.E.

Randy Gould, P.E.

Tom Howell, P.E.

Rivers and Associates, Inc.

November, 2004

Appendix A

2002 New Bern Water Supply Plan

JWEP Update 1.0



Developed by: Nr. Division of Water Resources

Date: 12.19.2003

Homepage: Feedback: View Plan: Submit: Help: Logout

Part 1: Water Supply System Report

Urrhui www.rio...-

SECTION 1: GENERAL INFORMATION

City of New Bern (1-8) PWSID: 04-25-010 [1-A] Water System:

Neuse River (10-1), Trent River (10-3) [<u>1-D</u>] Sub-Basin(s):

Craven

[1-D | County(s):

David A. Muse [1-1] Title: City Engineer [1-E] Contact Parson:

[1-G] Address:

PO 86x 1129

New Sem NC 28560

[1-H] Phone:

(252) 638-4004 [1-1] Fax: (252) 672-5152

[<u>1-J</u>] Email:

diyeng@newbarn-nc.org

[1-K] Ownership Type: Municipality

SECTION 2: WATER USE INFORMATION

[2-A] Pepulation Served in 2002:

Year-Round:

23,850

Seasonal (if applicable):

6 Months: None

[2-B] Yotal Water Use for 2002 including all purchased water: 1,535.545 Million Gallons (MG)

[2-C] Average Annual Daily Water Use in 2002:

4.207 Million Gallons per Day (MGD)

[2-D] 2002 Average Annual Daily Water Use by Type in Million Gallons per Day (MGD):

| - | Mel | ered Connections | Non | -Metered Connections | Total Average Use (MGD) |
|--------------------|--------|--------------------|--------|-------------------------------|-------------------------|
| Type of Use | Number | Average Lise (MGD) | Number | Est. Averaga Usa (MGD) | * |
| (1) Residential | 13,389 | 2,344 | o | 0.000 | 2,344 |
| | 1.625 | 0.945 | D | 0.000 . | 0.945 |
| (2) Commercial | 48 | D.342 | Ó | 0.000 | 0.342 |
| (3) Industrial | | 0.175 | 0 | 0.000 | 0.175 |
| (4) instituational | 1 | 4.170 | - | (5) Sales to either Systems | 0.037 |
| | | | | (6) System Process Water | 0.000 |
| | | | | (7) Subtotal | 3.843 |
| | | | 141 A | verege Annual Delly Water Use | 4,207 |
| | | | (a) A | (6) Unaccounted for water | 0.384 |
| | 0. | | | • • | 9 % |
| | | | (10) | Percent Unaccounted-for water | 4 /4 |
| | | | | | |

Note:

[2-E] Average Deliy and Maximum Day Water Use by Month in Million Gallons per Day (MGD)

| 1 3.E 1 . | MACIONA MANIA MILA | | | | S | | Aug. Delle Mod. | Max Day Use |
|-----------|--------------------|----------------|-------|-----------------|-------------|-----|-----------------|---------------|
| | Avg. Daily Use | Max Day Use | | Avg. Dally Lise | Max Day Use | | Avg. Daily Use | Max Gay Gad |
| | | | | | 5.786 | Sep | 4,287 | 5.388 |
| Jan | 3.668 | 4.873 | May | 4,656 | 9.7 au | | | |
| | | 5.067 | Trees | 4.999 | 6.178 | Öct | 4.092 | 5.28 7 |
| Fab | 3.675 | 3. 9 67 | יוחר | 4,100 | - | | | |

6.587

3,690

5.164

| NAM* | | |
|------|--|--|

3,737

4.252

JUN-02-2005 15:19

LWSP Update 1.0

Mar

Арг

[2-F] Largest Water Users and their Average Annual Daily Use in Million Gallons per Day (MGD) for 2002

6.020

| Type of Use | Avg Dally Use |
|---------------|---------------|
| Residential | 0.001 |
| Commercial | 0.003 |
| Industrial | 0.082 |
| Institutional | 0.175 |
| | |

4.783

Note:

[2-G] Water Sales To Other Systems

| Water Supplied To: | | Average | Average Daily Amount | | ntrast Amount | Pipe Size(s) Inches | R or E |
|--------------------|-----------|---------|----------------------|-------|-----------------|------------------------|--------|
| . Water System | PWSID | ' MgD | # of Days | MGD | Expiration Date | MCNES | _ |
| Cava City | 04-25-045 | 0.037 | 365 | 0.098 | | 6 | R |

Note:

[2-H] What is the Total Amount of Sales Contracts for Regular Use? 0.098 MGD

SECTION 3: WATER SUPPLY SOURCES

[3-A] Surface Water - List surface water source information.

| , Stream Reservoir | Drainaga Area (Square | ls With- drawal | Sub-Besin | County where hiske is | Da Wi dra | āy 1h- | Max, Day With- drawal | | ble Raw Supply | On-Steam Raw Water Supply Storage | Year Offine | e e e |
|--------------------|-----------------------------|-----------------------|-----------|--------------------------------|-----------------|-----------|--------------------------------|-----|-------------------|--|----------------|-------------|
| 1.3 | Miles) | Meterad? | | located | MGD | Davs | MGD | MGD | Qual | MG | | 24 |

No surface water sources are currently listed.

Note:

[3-8] Total Surface Weter Supply available for Regular Use? 0.000 MGD

[3-C] Does this system have off-stream raw water supply storage? No Useable Capacity: 9 Million Gallons

. [3-0] Water Purchases From Other Water Systems

| Water Supplit | d By: | Average | Daily Amount | C | ontract Amount | Pipe Size(s) | R |
|---------------|--------------------|---------|--------------|-----|-----------------|--------------|---|
| Warer System | Water System PWSID | | # of Days | MGD | Expiration Date | : Inches | E |

No water purchases are currently listed.

Note:

[SE] What is the Total Amount of Purchase Contracts available for Regular Use? 0.000 MGD

[3-F] Ground Water - List well information.

| | Well | Casing | Screen Depih | | AABI Total | Pump Intake | | Avg. Daily Withdrawal | | Maximum Day | Available Supply | | Year | R |
|-------------------|-----------------|---------------|-----------------|------|----------------------|----------------|----------|--------------------------|--------------|---------------------|------------------|-----------|---------|---|
| Number of Well | Clepth (ft.) | (U.) Dapin | Top | Bat. | Diameter (inches) | Depth (ft.) | Mctered? | MĢD | # of Days | Withdrawal (MGD) | MĢĐ | Qualifier | Ciffins | E |

WSP Update 1.0

| | | | | | * | | | - 444 | 358 | 2,215 | 0.972 | 12HR | R |
|---------------|-------------|-----|-----|-----|----|-----|---|-------|-----|-------|-------|---------|-----|
| Well No. | 842 | 490 | 490 | 897 | 10 | 220 | Y | 0.869 | a36 | 4,2.0 | | | |
| 1 | | | | 645 | 10 | 220 | Υ | 0.805 | 365 | 2,120 | 0.900 | 12HR | R |
| Weil No. 2 | 820 | 460 | 460 | 815 | 10 | | | | | | 0.073 | 12HR | , R |
| Well No. 3 | 798 | 465 | 465 | 778 | 10 | 240 | ٧ | 1.038 | 364 | 2,356 | 0.972 | 1661174 | |
| • | | | | | | 240 | Y | 0,982 | 561 | 2.074 | 0,972 | 12HR | Ŗ |
| Well No. 4 | \$39 | 465 | 465 | 834 | 10 | 249 | 2 | | | | | 477.15 | R |
| Well No. | 88 9 | 495 | 495 | 869 | 10 | 240 | Y | 0.630 | 269 | 1,909 | 1.044 | 12HR | |
| 5 | 440 | ,,, | 20 | | | | | | | | | €3 | |

- [3-6] What is the Total Available Supply of all walls for Regular Use? 4.860 MGD
- [3-H] Are ground water levels monitored? Yes How eften? Monthly
- [🏝] Does this system have a wellhead protection program? Yes

[3-1] Water Trestment Plants, List eff water treatment plants, including any under construction during 2002.

| 7 Anteres Language | | Permitted Capacity | is Raw | · c | is Finished Water Output | Squr08(5) |
|-----------------------------|--------------|--------------------|----------------|-----|-----------------------------|-----------|
| yvater Treatment Plant Name | (<u>*</u>) | (MGD) | Water Metered? | | Metered? | |

No water treatment plants are currently listed.

Note:

- [3-K] What is the total WTP capacity? 0.000 MGD
- [3-L] Did the average daily water production exceed 30% of the approved WTP capacity for five consecutive days in 2002? No

If yea, was any water conservation implemented?

[3-M] Did the average daily water production exceed 90% of the approved WTP capacity for five consecutive days in 2002? No

If yes, was any water conservation implemented?

[3-N] What is the systems finished water storage capacity? Million Gallons

SECTION 4: WASTEWATER INFORMATION

[4-A] List the Average Daily Wastowater Discharge by Month for 2002 in Million Gallons per Day (MGD)

| [<u>4-A</u>] LIST | Average Delly Discharge | | Average Delly Discharge | | Average Dally Discharge | | Average Dally . Discharge |
|---------------------|----------------------------|-----|----------------------------|-----|----------------------------|-----|------------------------------|
| | THE NAME OF THE OWNER. | Apr | 3,790 | Jul | 3.420 | Oct | 3.270 |
| Jan | 3.480 | - | | Aug | ୍. ୨. 380 | Nov | 3,260 |
| Feb | 3.520 | May | 3.460 | Aug | | | 3.160 |
| Mar | 4.030 | Jun | 3.420 | Sep | 3.780 | Dec | Ç. IÇO |
| | | | | | | | |

Note:

[48] List all Wastewater Discharge and/or Land Application Permits held by the system.

| 28 1 C131 O11 11 11 11 11 11 11 11 11 11 11 11 1 | | | | | | |
|--|--------------------------------|-----------------------------|---|----------------------------------|--------------------------------|--------------------|
| NPDES and/or Land Application | Permitted Capacity (MGD) | Design Capacity (MGD) | Avg. Armusi Daily Discharge (MGD) | Max. Daily Discharge (MGD) | Name of Receiving Stream | Ş ub-B asin |
| Permit Number | (N.4-2 | 37 | 1 - 440 | 5.480 | Neuse River | Neuse River (10-1) |
| NC0026348 | 4.700 | 4.700 | 3.490 | 3,460 | 110000 (1 | |

Note:

[$\underline{4-C}$] List all Wastawater Discharge interconnections with other systems.

| Wastewater Discharger | | Wastewater Receiever | | Ave Amour | Contract Maximum | |
|-----------------------|-------|----------------------|-------|--------------|---------------------|-------|
| Marea | PWSID | Name | PWSID | MGD | # of Days | : MGD |

No wastewater discharge interconnections are currently listed.

Note:

- [4-D] Number of sower service connections: 10,844
- [4-E] Number of water service connections with septic systems: 2,900
- [45] Are there plans to build or expand wastewater treatment facilities in the next 10 years? No

if yes, please explain:

SECTION 5: SYSTEM MAP

Please send us your system map. Click here for instructions on how to do so.

Part 2: Water Supply Planning Report

SECTION 8: WATER DEMAND PROJECTIONS

| ľ | <u>8-4</u>] | Papulation | Ю | DB | SELABA! |
|---|--------------|------------|---|----|---------|
| | | | | | |

| | 2002 | 2010 | 2020 | 5030 | 2040 | 2050 |
|--------------------------|--------|--------|---------|--------|------|------|
| Year-Round: | 23,650 | 27,280 | \$1,740 | 35,355 | 0 | 0 |
| Seasonal (7 applicable); | 0 | D | O | 0 | 0 | 0 |

Note:

Months of any future seasonal demand: None

[EB] Projected Average Daily Service Area Demand in Million Gallons par Day (MGD).

| 81 | 2002 | 2010 | 2020 | 2030 | 2040 | 2050 |
|---------------|-----------------------------------|---------------------|-----------------------------|-------------------------------------|---|--|
| Residential | 2.344 | 2.980 | 3.470 | 3.950 | 0.000 | 0.000 |
| Commercial | 0.545 | 1.130 | 1.310 | 1.530 | D.000 | 0.000 |
| Industrial | 0.942 | 0.385 | 0.420 | 0.480 | 0.000 | 0,000 |
| Institutional | 0.175 | 0.210 | 0.240 | 0.260 | 0.000 | 0.000 |
| Backwash | 0.000 | 0.400 | 0,400 | 0.600 | 0.000 | 0.000 |
| | 0.364 | 0.580 | 0.400 | 0.420 | 0.000 | 0,000 |
| | | 5.495 | 6.24 | 7,33 | ٥ | q |
| | Residential Commercial Industrial | Residential 2.344 | Residential 2.344 2.580 | Residential 2.344 2.580 3.470 | Residential 2.344 2.980 3.470 3.850 Commercial 0.345 1.190 1.310 1.530 Industrial 0.342 0.385 0.420 0.480 Institutional 0.175 0.210 0.240 0.260 Backwash 0.000 0.400 0.400 0.600 Backwash 0.364 0.380 0.490 0.420 Commercial 0.364 0.380 0.490 0.420 Commercial 0.364 0.380 0.490 0.420 Commercial 0.364 0.360 0.490 0.420 Commercial 0.364 0.380 0.490 0.420 Commercial 0.364 0.380 0.490 0.420 Commercial 0.364 0.360 0.490 0.420 Commercial 0.360 0.490 0.490 Commercial 0.360 0.490 0.490 | Residential 2.344 2.590 3.470 3.850 0.000 Commercial 0.545 1.130 1.310 1.530 0.000 Industrial 0.342 0.385 0.420 0.480 0.000 Institutional 0.175 0.210 0.240 0.260 0.000 Backwash 0.000 0.400 0.400 0.600 0.000 Backwash 0.364 0.380 0.490 0.420 0.000 Backwash 0.364 0.380 0.490 0.420 0.000 Commercial 0.364 0.380 0.490 0.420 0.400 Commercial 0.364 0.380 0.490 0.420 0.400 Commercial 0.364 0.380 0.490 0.420 0.400 Commercial 0.364 0.364 0.360 0.400 Commercial 0.364 0.360 0.400 0.400 Commercial 0.360 0.400 0.400 Commerci |

Note:

[6-C] Is non-residential water use expected to change significantly through 2030 from current levels of use? No

If yes, please explain:

 $[\underline{6-0}]$ Future Sales Contracts - List new sales to be made to other systems.

| Water Supplied To: | | • | Contract Amount and C | Pipe Size(s) | R or E | |
|--------------------|-------|-----|-----------------------|--------------|--------|--|
| System Name | PWSIO | MGD | Year Begin | Year End | inghes | |

No future sales are currently listed.

Note:

[5-E] Future Supplies - List new sources or facilities to be added.

| [S.E] Future Supplies - List new source | DE OI ISSUE | | | Additional Supply | Year On-line | R or E |
|---|-------------|---|---------------------|-------------------|--------------|--------|
| Source or Facility Name | × | PWSID | Ş оигса Тура | MGD | | _ |
| | | 04-25-010 | Ground | 4.QB0 | 2007 | R |
| Casun Haynes Water Treatment Plant | | 04-25-010 | Ground | 2.000 | 2012 | # R |
| Cestle Haynes WTP Expansion | | • | | 0.846 | 2004 | R |
| Well No. 6 | | 04-25-010 | Ground | 3.5 7- | | |
| Note: | | | | | | |

ampier at an armi

SECTION 7: PUTURE WATER SUPPLY NEEDS

Local governments should maintain edoquate water supplies to ensure that average daily water demands do not exceed 60% of the available supply. The following table will demonstrate whether existing supplies are adequate to satisfy this requirement and when additional water supply will be needed.

| [7-A] Average Delly Domand as Percent of Supply | 2002 | 2010 | 2020 | 2030 | 2040 | 2050 |
|--|----------------|----------------|---------------|---------------|----------------|-------------|
| Available Supply, MGD | 0.000 | 0.000 | 0.000 | 0,000 | 0.009 | 0,000 |
| (1) Existing <u>Surface Weter Supply</u> | 4,860 | 4,850 | 4.560 | 4,560 | 4,860 | 4,860 |
| (2) Existing Ground Water Supply | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0,000 |
| (3) Existing <u>Purchase Contracts</u> (4) <u>Future Supplies</u> | - | 4.846 | 6.846 | 6,845 | 6.646 | 6.845 |
| (5) Tatel Available Supply | 4,860 | 9.708 | 11.706 | 11.708 | 11.706 2040 | 11.706 |
| Average Delty Demand, MGD | 2002 | 2010 | 2020 6.240 | 203D 7.930 | 0.000 | 0.000 |
| (5) Service Area Demand | 4.170 0.058 | 5.49S 0.088 | 0.098 | 0,000 | 0.098 | 0.098 |
| (7) Existing <u>Sales Contracts</u> | 0.030 | 0.000 | 0,000 | 0,000 | 0.000 | 0,000 |
| (8) Future Sales Contracts | 4.268 | 5.593 | 6.338 | 7,428 | 0.098 | 6,098 |
| (9) Total Average Daily Demand (10) Demand as Parcent of Supply | 86% | 58% | 54% | 69% | 1% | 1% |
| (11) Additional Supply Needed to Maintain 80% | 0.475 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Note: | | | | 4 | . 4 1 1 | - to entire |

[7-B] Line 10 does not indicate that demand will exceed 60% of available supply before the year 2030. Therefore you do not have to submit the following Information:

- Plans for obtaining additional water supply before demand exceeds 80% of available supply. The appner the additional supply will be needed, the more specific your plans need to be.
- A demand management program to ensure efficient use of your available water supply (for example, conducting water audits at least annually to closely monitor water use; targeting targe water customers for increased efficiency; modifying water rate structures; identifying and reducing the amount of leaks and unaccounted-for water, and reusing recisimed water for non-potable uses).
- Restrictive measures to control demand if the additional supply is not available when demand exceeds 60% of available supply, including:

 - Placing a moratorium on additional water connections until the additional supply is available.

 Amending of developing your water shortage response ordinance to trigger mandatory water conservation as water demand approaches the available supply.

[Z-C] Are peak day demands expected to exceed the water treatment plant capacity by 2010? No

If yas, what are your plans for increasing water treatment plan capacity?

- [7-D] Does this system have an interconnection with another system capable of providing water in an emergency? No
 - If not, what are your plans for interconnecting (or please explain why an interconnection is not (easible or necessary?
- [2-6] Has this system participated in regional water supply or water use planning? No
- · If yas, please describe:
- [7-E] List the major water supply reports or studies used for planning
- [Z-G-] Please describe any other needs or issues regarding your water supply sources, any water system deficiencies or needed imporvements (storage, treatment, etc.) or your ability to meet present and future water needs. Include both quantity and quality considerations, as well as financial, technical, managerial, permitting, and compliance issues.
- [7-4] Does this system raily on the transfer of surface water between river basins for any of its existing water supply? No
- If yes, please describe:
- [7-1] Does this system anticipate transferring surface water between river basins? No
- w yes, please describe:

Part 3: Water Conservation and Demand Management

SECTION 8: WATER USE EFFICIENCY

- (& A] What is the estimated total miles of distribution system lines? 212 Miles
- [$\underline{\mathbf{8-B}}$] List the primary types and sizes of distribution tines:

| | Asbesios Coment (AC) | Cast Iron (CI) | Quetile (ron (Di) | Galvanized Iron (GI) | Plyvinyl Chlaride (PVC) | Other |
|----------------------|-------------------------|-------------------|----------------------|-------------------------|----------------------------|-------|
| Size Range (Inches) | 5- 12 | 6-12 | 6-18 | 2 | 2-12 | 30 |
| Estimated % of lines | 2% | 32% | 15% | 2% | 41% | 7% |
| Note: | | | | | | |

- (8-C) Were any three replaced in 2002? No 0 linear feet
- [8-D] Ware any new water mains added in 2002? Yes 11,300 linear feet
- [8-E] Does this system have a program to work or flush hydrants? Yas Yow often? Once a Month
- [8-F] Does this system have a valve exercise program? No How otten? None
- [8-6] Doos this system have a cross-connection control program? No
- [8-H] Does this system have a meter replacement program? Yes Meters replaced in 2002: 360
- [$\underline{B-1}$] How old are the oldest maters in the system? 10 Years
- [8-1] Are there meters for outdoor water use, such as impation, which are not billed at a different rate? Yes
 - # of meters 588
- [8-K] Has water pressure been inadequate in any part of the system? No
 - If yes, please explain:
- [84] Dons five system have a leak detection program? No
 - If yes, what type of program?
- [8-M] Would this system like help to plan a leek detaction program? Yes
- [B-N] Does this system have an active water conservation public education program? Yes
- [8-0] Does this system have a program to encourage replacement or retrolit of older, high water-use plumbing futures? No
- [8-P] What type of rate structure is used? Flat
- [B-Q] Does this system have seasonal rates? No
- [8-R] Dies this system use recisimed water or plan to use it within the next five years? Yes

Number of connections: 0; 0.000 MGD

- [8-5] Do you need help to measure or monitor streamflows to determine the flow at your intake? No
- [8-1] Are you required to maintain minimum flows downstream of your intake or dam? No
- [8-11] During 2002, did you have problems meeting sales contracts to other water systems? No
- [8-V] Do you manitor and record the amount of water supply from all available sources for your system? Yes How Often? Daily
- [8-W] How much water was un-secounted for in the last water audit? 15% Year. 1997
- [B-X] Was your water supply limited in 2002 because of activity of other users of the same water source? No

If yes, planse explain the problem:

[8-Y] What kinds of incentive programs or other voluntary programs could help feater water conservation and water reads measures in your

| - | , , | 1998 | 1999 | 2005 | 2001 | 2002 | |
|----|---|-------|------|------|------|------|--|
| | [8-2] Water Use Restrictions 1998 - 2002 | ٥ | ٥ | 0 | 0 | 0 | |
| | (1) Number of months in Voluntary Stage | 0 | 0 | 0 | ٥ | 0 | |
| | (2) Number of months in Mandatory Stage | a | ٥ | D | 0 | 0 | |
| | (3) Number of months in Emergency Stage | No. | No | No | No | Ng | |
| | (4) Was temporary piping or pumps installed and/or used to supplement water supply? | No | No | No | No | No | |
| | (5) Did you have an interconnection to obtain an amergency supply of water? | • | Na | No | Na | No | |
| | (8) Was water use restricted for industrial customers? | No | No | No | No | No | |
| | (7) Were sales to other systems restricted? | No | No | No | No | No | |
| | (a) Were all customers required to be at the same level of water use restrictions? | No | • | No | No. | No | |
| ž. | (a) Are you required to be sit ten same level of water use restrictions as your water supplier? | No | No | No | No | No | |
| | (10) Ware enforcement measures used to encourage compliance with water use restrictions? | No | No | No | No | No | |
| | (11) Old you undertake public aducational activities to ancourage water conservation? | No No | No | | No | No | |
| | (12) Was a water guidt conducted to account for all water preduced or purchased? | No | No | No | | | |
| | (13) Was Public Water Supply Section Regional Office notified about water use restrictions? | No | No | No | No | No | |

SECTION 9: WATER SHORTAGE RESPONSE PLANNING

- (9:A) Did this water system have a Wester Shortage Response Plan order to 2002? No
- [全日] Did this system develop a Water Sharlage Response Plan during 2002? No
- [9-0] If you have a Water Shortage Response Plan, does it include a drought ordinance to trigger water use restrictions? No

If you answered Yes to 8-A gr 9-B, please send a copy of the Water Shortage Response Plan developed for your system to the Division of Water Resources by either method listed below:

- Email:
- Fax; (919) 733-3558
- S US Mel

North Catolina Division of Water Resources Water Supply Planning 1611 Mall Sarvice Center Raidigh, North Carolina 27699-1611

If you enswered No to 9-A and E-8, you must submit a Water Shortage Response Plan (WSRP) with your 2002 Local Water Supply Plan.

The WSRP should include objective measures of water availability as triggers to activate and deactivate water use reduction

LWSP Update 1.0

activities.

- WSRP's should designate assential, economically important, and non-assential uses of drinking water. Uses included in each of these categories will vary for individual water systems.
- To sustat in updating or preparing a Water Shortage Response Plan, a <u>handbook</u> is available to view or dewnload from the <u>water ognosevation section</u> of the Division of Water Resources website at <u>www.ncwater.org</u>. Please contact () for assistance with updating or preparing your Water Shortage Response Plan.

Part 4: Interbasin Transfer Worksheets ...

This part does not apply to your system.

Top Of Page

ALDERMAN

JULIUS C. PARHAM, JR. ROBERT G. RAYNOR, JR. MACK L. "MAX" FREEZE JOSEPH E. MATTINGLY, JR. MARBARA LEE .VILLIAM H. BALLENGER

City of New Bern



TOM BAYLISS, III MAYOR

WALTER B. HARTMAN, JR. CITY MANAGER

> VICKIE H. JOHNSON CITY CLERK

> MARY B. MURAGLIA CITY TREASURER

Three Centuries of North Carolina Heritage

FOUNDED 1710
Phone: 252-636-4000 P.O. Box 1129
到如那年前,我也 28563-1129
July 11, 2005

MEMORANDUM

TO:

NEPA-404 Merger Team Members

FROM:

Walter B. Hartman, Jr., City Manager

RE:

Follow-up to NEPA-404 Merger Team comments from June 16, 2005 meeting

R-4463

Thank you for the opportunity to address questions and comments raised at the June 16th meeting of the merger team. Our responses follow an outline provided by the Downeast RPO, which is assisting the County and City with this project.

According to notes and letters received from the meeting, the Merger Team has requested a written commitment or letter of intent regarding the following:

1. Potential Land Use Ordinance Provisions - Overlay districts for the project study area and schedule for CAMA Land Use Plan.

The City of New Bern has called for a public hearing on July 26, 2005 to consider extending its exterritorial planning jurisdiction (ETJ) (see attached ETJ boundary map) to include the entire study area. The Planning and Zoning Board held a public hearing on the ETJ proposal and initial zoning at its July 5, 2005 meeting. Following a staff presentation, public comment, and discussion the Board voted unanimously to recommend, extending the ETJ and assigning an A5-F zoning classification, to the Board of Aldermen. In an effort to support managed growth in the Project Study Area, the Craven County Board of Commissioners approved an extension of the ETJ beyond the one mile permitted in NCGS 160A-360, and endorsed a Land Development Plan (see attachment) for the Project Study Area at its July 5, 2005 meeting. The Land Development Plan will serve as a guide for the development of overlays, zoning, and site development reviews.

The City of New Bern is scheduled for its next CAMA Land Use Plan Update this fiscal year. To provide better coordination and resource management it is anticipated the plan will include the towns of Trent Woods and River Bend as in our current plan. Some of the policies in our CAMA Land Use Plan include: (1) productive agricultural lands; (2) commercial forestry lands; (3) mineral production areas; and (4) residential, commercial and industrial development impacts on resources. In addition, the City Planning and Zoning Board has completed the final draft of its Comprehensive Development Plan (not the same plan as the CAMA Land Use Plan) which will go before the Board of Aldermen in the early fall of this year.

2. ICI Recommendations and specific locations within the project study area where they will be implemented.

City staff has reviewed the issue of habitat fragmentation and access corridors and have incorporated recommended wildlife access corridors for consideration by New Bern's Planning and Zoning Board and Board of Aldermen during July (see Land Development Plan). The City will work with NCDOT to identify and implement wildlife crossings. In particular, we support the crossing shown for Alt. F, our preferred alternative. Related to this, the City took action several years ago to protect the Wilson Creek drainage basin, where it crosses existing Hwy 17S, through assigning low density, non-commercial zoning, and denying requests for commercial zoning. The Land Development Plan also includes a 50-foot riparian buffer along the drainage ditch on the eastern boundary of the Greenbrier community.

3. Water Conservation Measures.

The City provides educational materials on water conservation through its consumer billing programs, and provides rebates to customers that replace inefficient toilets with new low flow models. In addition, a new water conservation committee has been established in Craven County. The committee will provide outreach to the entire community by advertising the need to conserve water and provide tips on how to achieve this. The committee will have a presence at many public events in an effort to educate a wide range of citizens on the importance of this issue.

4. Well Head Protection Plan.

The City has a wellhead protection plan, adopted by the Board of Aldermen, that includes a buffer and cooperative arrangements with adjacent farmers and landowners to notify the city of any potential problems. The new wells, currently underway as a part of accessing the Castle Haynes, are within our zoning jurisdiction, which will facilitate expanded wellhead protection. While the City currently has a wellhead plan for its sites outside the City's jurisdiction the City engineer is in discussions with planning staff on zoning tools to help protect the new well locations within the City's jurisdiction.

5. Hazardous Spill Management and Catch Basins.

When a spill involves sewer the City responds within 15 minutes of first notification. It has a policy of maximum mitigation including vacuuming the material and liming the area. All reporting guidelines are followed including local media. The City has staff in its public works office that maintains level II certifications in hazardous materials operations.

Spills on City rights-of ways are handled by the crew and those on state streets by NCDOT crews. The City fire department uses the services of the Cherry point USMC base Hazard Materials team for spills beyond the ability of city crews. New Bern does not require hazardous spill catch basins at this time, but is considering them. The Public Works director oversees storm water matters for the City. He has met with planning staff to consider incorporating the requirement of hazardous spill catch basins, in critical areas of traffic and industry, as a part of the City's monthly Site Plan Review and Approval process.

6. Emergency Water Shortage Program.

Emergency shortages are covered by redundant capacity in wells. If one of our five wells goes down there is no impact. If two go down we shift to emergency conservation measures. The new wells being placed to draw from the Castle Haynes, about 15 miles from the existing wells, will provide further backup. According to our Vulnerability Assessment plan and Emergency plan failure of the main line from our five wells in Cove City can be repaired within 24 hours.

Based on an interview with the City's Engineer responsible for water and wastewater systems, the City's water supply options are well in excess of future projected needs. The City's location over the Castle Haynes aquifer is far better in respect to volume and quality than the neighboring cities of Jacksonville and Kinston. Along with the Cretaceous and Castle Haynes aquifer, the former Martin Marietta quarry and Neuse River are additional potential sources.

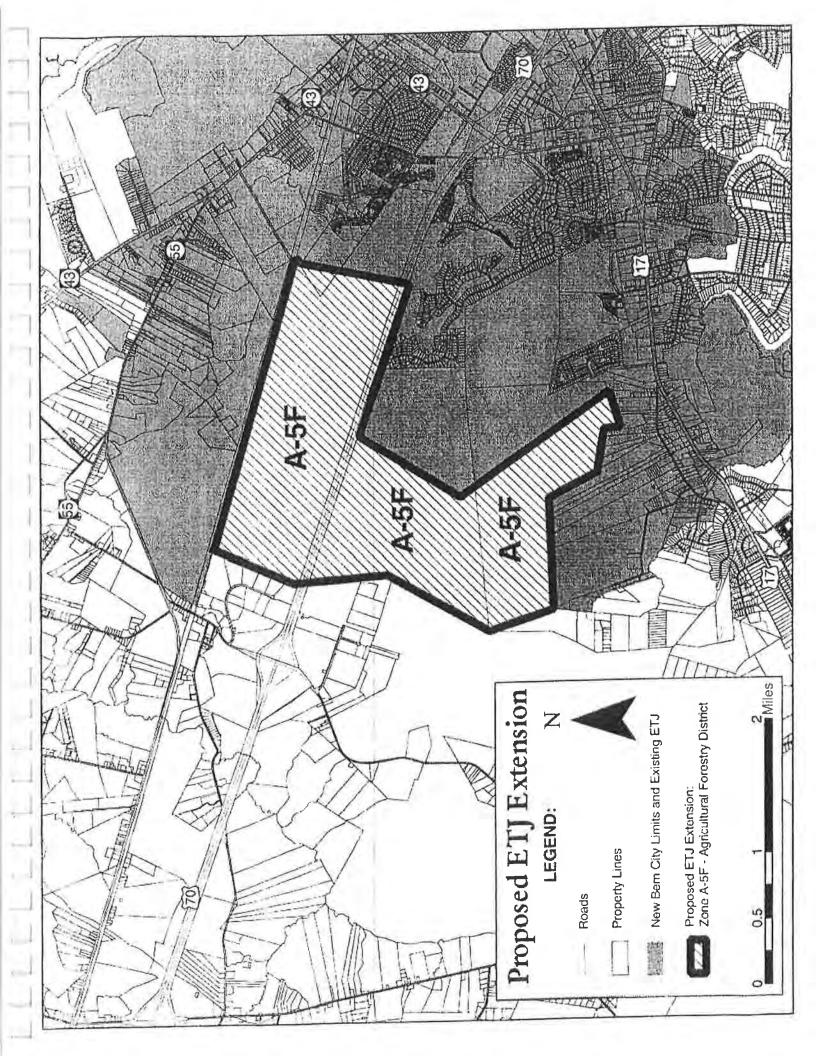
The City of New Bern is presently in the process of designing facilities to provide additional water capacity. A new five million gallon water treatment facility will incorporate additional capacity to provide ample water for the next twenty years as is outlined in the Public Water Supply rules, regulations, and procedures for permitting. We have increased our growth rate predictions to include anticipated impacts of this road as well as our Tri-Centennial Celebration and associated advertisements for the area.

7. Information on how the water demand of the support companies (associated with BSH Industries) is addressed by future planning.

See 6 above.

Please contact our Director of Planning, Michael Avery at 252-639-7850 or me at 252-639-2700 if you have questions or need additional information.

MA/ld



NC 43 CONNECTOR - EXTENSION OF NEW BERN ETJ

Land Development Plan Classifications

Rural - Agricultural

The Rural Agricultural Forestry area is designed to promote forestry operations, low density residential uses, recreational uses and certain other agricultural uses. Its purpose is to encourage the conservation of an area's existing agricultural and forestry resources, and promote low density development.

As the City of New Bern continues to grow, it is also the purpose of the rural-agricultural designation to encourage the sensitive incorporation of low density single family or multi-family development in an effort to maintain rural character and conserve valuable lands.

Residential Cluster Development

This area is envisioned to develop at the City's R-10A development standards, which include single family, duplex and multi-family dwellings. The density for single family is approximately three (3) units per acre. For multi-family, it will be approximately seven (7) units per acre. In addition the intent for this area is to encourage and provide incentives for the use of cluster development patterns. Possible incentives include: accelerated approval process; lot size and set back flexibility; partial credit for open space toward park dedication; and flexibility on infrastructure sizing. For example, under R-10A provisions, a single family house could be built on a lot as small as 5,000 square feet as long as the difference between 5,000 and the minimum required square footage of 10,000 in a non-cluster development, is set aside for passive open space (undeveloped with the possible exception of trails and greenways). It is anticipated that such provisions will greatly encourage larger open spaces as a part of development in this area.

* A 50-foot riparian buffer is proposed along the large drainage ditch from the New Bern city limits at US 70 to the northeast corner of the New Bern High School property line.

Commercial

The commercial area is established as an area for offices, personal services and the retailing of durable and convenience goods. Because of the high traffic arteries located nearby, ample off-street parking, controlled traffic movement and an appropriate appearance, including planting and buffers, must be provided.

Industrial

The standard industrial use has as its principal land use warehousing, mixed industrial, heavy industrial and heavy commercial type uses. More specifically, it accommodates enterprises engaged in manufacturing, processing, creating, repairing, renovating, painting, cleaning and assembling of goods, merchandise or equipment.

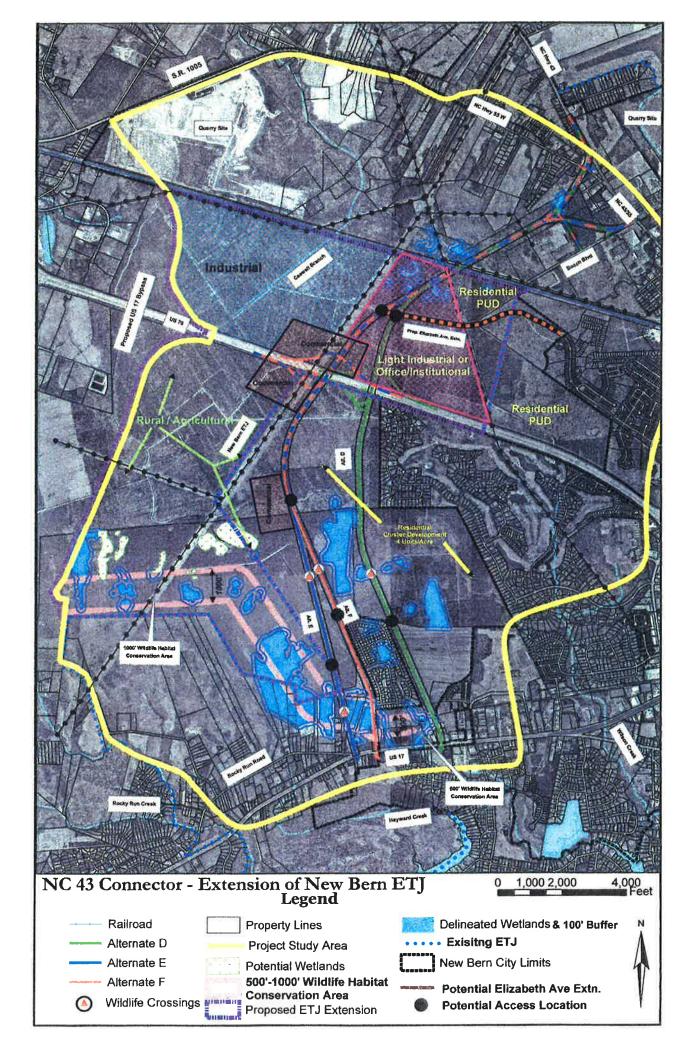
Light Industrial or Office and Institutional

A light industrial use has as its principal land use industries that can be operated in a relatively clean and quiet manner and which are not obnoxious to adjacent residential or business districts. General uses include warehousing and wholesaling activities where there is limited contact with the general public and outdoor amusement facilities that generate larger volumes of automobile traffic. This area would prohibit the use for heavy industry.

The office and institutional uses would be those compatible with light industrial and could include limited business and professional offices, institutional uses such as medical facilities and clinics, and residential uses with appropriate buffering.

Residential Mixed Use

The uses in this area will provide a transition between existing residential uses to the east and proposed light industrial or office and institutional to the west. Residential in this area would be medium to high density with limited neighborhood business uses which primarily provide the retailing of goods and services to nearby residential neighborhoods along with office and institutional uses.



NEPA/404 MERGER TEAM MEETING AGREEMENT Concurrence Point No. 3: Alternative Selection

PROJECT NO./TIP NO./ NAME/DESCRIPTION:

Federal Aid Project Number:

State Project Number:

6.804857

TIP Project Number:

R-4463

TIP Description:

NC 43 Connector, Craven County

From NC 55 to US 17

ALTERNATIVE RECOMMENDED:

From the original northern terminus, Alternative F turns southwest to a proposed grade separation over the NCRR tracks. Approximately one mile south of the railroad, an interchange is proposed with US 70. The interchange is located west of the Greenbrier community and parallels an existing powerline easement. South of US 70, Alternative F continues to parallel the powerline easement before curving to the east. The southern portion of this alternative joins existing Trent Creek Road and terminates at US 17.

The Project Team has concurred on this date of July 13, 2005 with the selection of Alternative F as the Least Environmentally Damaging Practicable Alternative (LEDPA) for TIP Project No. R-4463.

US Army Corps of Engineers

US Environmental Protection Agency

US Fish and Wildlife Service

National Marine Fisheries Service

NC Wildlife Resources Commission

NC Department of Cultural Resources

NCDENR, Division of Coastal Management

NCDENR, Division of Marine Fisheries

NCDENR, Division of Water Quality

NC Department of Transportation, PD & EA Branch

NC Department of Transportation, Division 2

C. E. Jan St.



North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor Lisbeth C. Evans, Secretary Jeffrey J. Crow, Deputy Secretary

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

July 19, 2005

MEMORANDUM

TO:

Gregory Thorpe, Ph.D., Director

Project Development and Environmental Analysis Branch

NCDOT Division of Highways

FROM:

Peter Sandbeck Blog Peter Sandbeck

SUBJECT:

Phase II (Intensive Level) Architectural Survey Report, NC 43 Connector, NC 55 to US 17,

R-4463, Craven County, ER03-0014

Thank you for your letter of June 21, 2005, transmitting the survey report by Frances P. Alexander of Mattson, Alexander and Associates, Inc.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property remains eligible for the National Register of Historic Places under the criterion cited:

(No. 10) Elijah Farrow Farm, north side of Rocky Run Road (Trent Road), 0.1 mile west of junction with US 17, is eligible for the National Register under Criterion A for African American heritage. The property retains a high degree of integrity and is a rare surviving example of an early twentieth farm established by an African American in Craven County.

We concur with the proposed National Register boundaries as defined and delineated in the survey report.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that Ipock-Lancaster-Beaman Farm is on the State Study List and remains eligible for the National Register of Historic Places. However, the property is located outside the revised Area of Potential Effects (APE) for this project.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur with the not eligible findings found in Appendix A of the report.

cc: Mary Pope Furr

ADMINISTRATION

SURVEY & PLANNING

RESTORATION

Frances P. Alexander, Mattson, Alexander and Associates

4617 Mail Service Center, Raleigh NC 27699-4617

4617 Mail Service Center, Raleigh NC 27699-4617

Telephone/Fax

APPENDIX B

NCDOT RESPONSES TO COMMENTS ON THE ENVIRONMENTAL ASSESSMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAY 12 2005

Dr. Gregory J. Thorpe, Ph.D.
Environmental Manager Director
Project Development and Environmental Analysis Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548



Subject: State Environmental Assessment and Indirect and Cumulative Impact Assessment for the Proposed NC 43 Connector (Bosch Boulevard Extension), from NC 55 to US 17, Craven County; State Project No. 6.804857, TIP Project No.: R-4463

Dear Dr. Thorpe:

The U.S. Environmental Protection Agency Region 4 (EPA) has reviewed the subject documents, and is commenting in accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA). The North Carolina Department of Transportation (NCDOT) is proposing a new 2-lane connector between NC 55 and US 17, outside the City of New Bern, in Craven County for an approximate distance of 4.5 miles.

EPA has been involved in the proposed State-funded project through the 404/NEPA Merger process. However, EPA abstained from concurring on the Purpose and Need for the proposed project as its primary purpose is to promote development in Craven County. According to EPA's Merger tracking records (the project was formerly known as Bosch Boulevard Extension), other Federal and state agencies concurred on purpose and need for the project on March 26, 2003. Meetings on detailed study alternatives to be carried forward were held on June 18, 2003, September 17, 2003, and January 20, 2004. On March 15, 2005, team members agreed to bridging decisions at wetlands and stream crossings for the alternatives.

EPA offers the following specific comments on the State EA and Indirect and Cumulative Impact (ICI) Assessment:

Alternatives:

Non-build alternatives were not fully considered in the EA because the primary purpose of the project is provide a new location roadway access for BSH Industries between US 70 and US 17 and to provide development access for the City of New Bern and Craven County south of US 70. These other non-build alternatives are not capable of meeting the purpose and need for the project. Most of the lands to be developed are managed pineland plantations of Weyerhaeuser and Champion International.

There are three build alternatives which have been carried forward for detailed study, including Alternatives D, E and F. The northern terminus option (Alternatives D1, E1 and F1) has been verbally agreed to be dropped by the Merger team agencies due to potential conflicts with current development plans of BSH Industries.

The EA states: "The City of New Bern currently has an efficient roadway network in terms of radials and crosstown facilities. However, the system lacks in terms of loops and bypasses". If radials and crosstown facilities are properly planned and integrated with local land use and access is reasonably controlled, the need for loops and bypass facilities would be minimized. Studies have shown that bypasses can negatively impact 'downtown' businesses, increase sprawl and increase miles driven. Unfortunately, land use and transportation plans have not always been adequately integrated, thus resulting in the need for loops and bypasses. The NC 43 Connector's primary purpose/need (as documented) is for economic development - not for system linkages, capacity or safety issues. The primary purpose and need for the proposed US 17 New Bern Bypass (R-2301) which is a half a mile from the NC 43 project study area is for system linkages, safety and future north-south corridor capacity. We are not aware of any traffic documentation that two major 'bypasses' are needed for the City of New Bern.

Environmental Consequences

- * Prime Agricultural Lands Based upon a 500-foot corridor estimate, impacts to prime, unique and Statewide important farmlands for Alternatives D, E and F are 246.8 acres, 247.5 acres and 275.8 acres, respectively. EPA recognizes that direct impacts to these protected farmlands will potentially be less due to a narrower right of way required for the new roadway. Furthermore, EPA understands that most of the farmlands scored less than 160 and should be given a minimal level of protection (7 CFR 658.4). Nonetheless, there are no protective measures planned for any of these farmlands and indirect and cumulative impacts from future development may actually increase the total amount of prime, unique and Statewide important farmlands. From the summary of impacts table in the EA and the discussion on farmlands it is unclear if any actual farm businesses will be impacted or taken from the proposed roadway or from future development. This information should be provided at the next concurrence meeting (i.e., Selection of the Least Environmentally Damaging Practicable Alternative LEDPA).
- * Noise Receptors Noise receptor impacts for Alternatives D, E and F are 58, 60 and 42, respectively. A noise wall is being considered for Alternative F based upon the NCDOT Noise policy using the former \$25,000 threshold for benefitted receptor. The EA states that the 2004 NCDOT Noise Policy will be applied prior to the issuance of the Finding of No significant Impact (FNSI). Noise walls can be relatively expensive and could alter the selection for the LEDPA alternative. Therefore, EPA requests that the results of an updated noise wall evaluation using the \$35000 sliding scale be provided prior to the LEDPA concurrence meeting.
- * <u>Direct Wetlands and Stream Impacts</u> The EA cites that there are no stream impacts and that the wetland impacts from Alternatives D, E and F are 2.7, 3.1 and 4.3 acres, respectively. Avoidance and minimization measures and compensatory mitigation are addressed on pages 4-70 and 4-71 of the EA. Preliminary alignment shifts of the corridors by NCDOT have avoided and

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minimized impacts to wetlands. However, the bridging of wetland systems was not found to be feasible at the March 15, 2005, Concurrence Point 2A meeting. EPA will be seeking other avoidance and minimization measures for direct wetland impacts during the Merger process, including the reduction of median widths and the side slopes in wetland areas. Compensatory mitigation for direct wetland impacts is proposed through the Ecosystem Enhancement Program (EEP).

- * <u>Terrestrial Forest Impacts</u> For Alternatives D, E and F, terrestrial forest direct impacts from the roadway are estimated at 82.1, 93.2 and 93.8 acres, respectively.
- * Water Supply Water supply issues are generally discussed under 'Groundwater' on pages 4-53 to 4-55 of the EA. The EA states that water table depths in the vicinity of the project study area have been steadily dropping over the last 30 years. The EA states that the primary reason is that groundwater withdrawls have exceeded the recharge rate for both the surficial and Cretaceous aquifers. The reasons for the high withdrawls and slower recharge include public drinking water demands, rock quarry operations and silvicultural ditching. Notwithstanding the City of New Bern's proposed plan to tap the shallower Castle Hayne aquifer and that local aggregate quarries are no longer demanding as much groundwater for their operations, EPA is concerned for long-term water supplies.

The Castle Hayne aquifer is <u>untapped</u> for the City of New Bern. However, the Castle Hayne aquifer is already being tapped by the town of Washington, the town of Beaufort and Cherry Point Marine Corps Station, Carteret County, Brunswick County, the city of Jacksonville and Camp LeJeune, and Onslow County. PCS Phosphates pumps approximately 78 million gallons per day from the Castle Hayne aquifer. The EA does not provide additional detailed information regarding the "Central Coastal Plain Capacity Use Area" and the state-ordered mandate to reduce withdrawls from the Cretaceous aquifer by 25%. While a new water supply and treatment facility is planned by the City of New Bern for its current 4.2 million gallons per day (mgd) water demand and will eventually reduce its dependence on the Cretaceous aquifer, the EA does not detail what additional water demand will result from the increased development from the proposed roadway project.

EPA does not fully agree with the assessment that existing groundwater recharge may actually increase if stormwater detention/infiltration structures are constructed for the proposed project. Stormwater devices will potentially aid water quality to local streams and potentially very shallow aquifers but will have a very negligible effect on groundwater recharge for deeper aquifers as compared to the increase of impervious surfaces resulting from the proposed roadway and development. With potentially miles of asphalt and concrete for the roadway (i.e., 4.5 miles) and hundreds of acres of development including driveways and access roads, impervious surfaces will substantially reduce groundwater recharge in the project study area. EPA does concur that two factors may aid shallow aquifer recharge more substantially: the filling of silvicultural ditches in the project study area and the 1996 cessation of mining operations at the Martin Marietta New Bern quarry (Please see additional comments on Water Supply from the ICI Report).

^{*} Hazardous Materials Sites - Page 4-76 of the EA cites the presence of a Superfund site along

existing Bosch Boulevard (i.e., Approximately 7 acres of the Amital Spinning property). On May 2, 2005, EPA checked the CERCLIS database at the Regional office in Atlanta and could not find any listing for this site in Craven County. EPA would appreciate further clarification from NCDOT as to why this site has been referred to as a "Superfund site". If it is a Superfund site, a twelve digit site identifier number beginning with the letters NC should have been assigned. EPA would ask that this information be provided prior to or at the next planned Merger meeting.

* Indirect and Cumulative Effects: Indirect and cumulative effects are described in a separate report dated January 2005. EPA has identified two major areas of environmental concern regarding the project's indirect and cumulative impacts: 1) - Compensatory mitigation for wetlands impacts caused by induced development and 2) - Long-term water supply vulnerability. While EPA was encouraged to see numerous recommendations regarding potential conservation measures, such as Infill, Low Impact and Cluster Development, Mixed Land Uses, Designation of a Conservation Area, Animal Passages and Additional Stormwater Management, it is unclear if the City of New Bern has formerly adopted any of these viable recommendations. EPA has reviewed the letter dated December 10, 2004, from the New Bern City Manager and is encouraged that the City is generally supporting the recommendations contained in the ICI report.

According to the ICI report, the City of New Bern is currently in the process of updating its New Bern Regional Land Use Plan. EPA was informed during the March 26, 2003, Concurrence Point 1, Purpose and Need meeting that the City of New Bern was in the process of updating its Land Use Plan. EPA believes that the adoption of an updated land use plan is an integral part of the Merger team process as it will address future development recommendations and help to identify specific indirect and cumulative impacts to jurisdictional wetlands and riparian buffers.

which states that the project study area is anticipated to experience ICIs from future development, which will occur regardless of the proposed project's construction. The ICI highlights the fact that funding the southern portion of the roadway (south of US 70) was not included in the 2004-2010 TIP. Currently, there is funding for only the northern segment. Without the roadway infrastructure provided by NCDOT for the entire 'bypass', it is very likely that the southern portion of the project study area would take much longer to 'build out'. To support our position, EPA is citing from page 1-31 of the ICI: "Land to the west of the project study area is predominantly undeveloped; however, construction of the proposed (access controlled) US 17 [New Bern] Bypass would create a development constraint for the project study area by preventing direct access from the project study area."

(1) EPA has compensatory mitigation concerns. Because much of the southern portion of the project study area is jurisdictional wetlands or formerly wetlands (i.e., NWI mapping showing 1,518 acres of wetlands and DCM wetlands mapping showing 1,639 acres of wetlands - Page 3-21 of ICI), there is no certainty that Section 404 permits would be issued by the U.S. Army Corps of Engineers for future development. Because of the buffer requirements under the Neuse River Basin Nutrient Sensitive Waters Management Strategy, there is no certainty that the North Carolina Division of Water Quality would approve future 401 Water Quality Certifications from

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uncontrolled development (From Page 3-23 of the ICI; Approximately 11,479 linear feet of Caswell Branch are within the undeveloped portion of the project study area and future development has the potential to impact 26 acres of riparian buffer along Caswell Branch). The ICI 'build-out' acreage for the entire project study area is approximately 3,880 acres. From current wetland mapping, approximately one third is wetlands. While total 'build-out' might eventually occur at some point in the future, it will be greatly enhanced and accelerated by the proposed NC 43 Connector project. However, there are obviously going to be severe environmental constraints to 'total build-out', including jurisdictional wetlands and riparian buffers, stricter stormwater management requirements and adequate drinking water supplies.

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As stated in the ICI, none of the recommendations contained in the ICI report are environmental commitments by the NCDOT. Induced development from the proposed roadway could potentially result in the loss of hundreds of acres of jurisdictional wetlands and substantial losses of riverine buffer areas. EPA and other agencies have previously suggested that a formal written agreement between the City of New Bern, Craven County and NCDOT needs to be developed and approved to address the indirect and cumulative impacts from the development resulting from the proposed NC 43 Connector project and it should specifically identify who will be responsible for future avoidance and minimization measures and compensatory mitigation for wetland losses. EPA does not concur with NCDOT's opinion that it is only responsible for compensatory mitigation from the direct impacts within the right of way.

EPA recognizes that NCDOT has made this State-funded project a priority project and desires to streamline the Merger process (referring to the February 17, 2005, meeting agenda where concurrence points 2A, 3 and 4A where being sought without the issuance of the State EA and the U.S. Army Corps of Engineers' Public Notice). Without some written agreement in place to address compensatory mitigation for indirect and cumulative wetland impacts between the aforementioned parties, it may be difficult to streamline the Merger process. EPA has previously stated its position regarding "but for the new road" when the primary purpose and need of this transportation project is based solely upon local economic development.

(2) EPA is also concerned with long-term water supply issues. While the ICI analysis provides more detail than the EA, it does not address the long-term vulnerability of the City of New Bern relying exclusively on the Castle Hayne aquifer for current and future demand. The ICI page 1-20 citation from LeGrand concerning the Castle Hayne aquifer's 'excellent chemical quality' is dated (i.e., from1960) and more current accurate information is readily available. In 1960, there were no enforceable primary or secondary drinking water standards and there were no environmental risk laws or regulations in place to fully address drinking water quality issues. To the contrary, recent studies have shown that the Castle Hayne aquifer's future water quality may be in jeopardy (e.g., G. Kunkle, Carteret County Crossroads - Ground Water Supply in Coastal North Carolina, 2/2000; R. Huffman, Ground Water in the Coastal Plain of North Carolina, 3/1996; T. Roberts, et al., Characterization of Nutrients and Trace Metals in the PeeDee Sands and Castle Hayne Limestone Aquifers: New Hanover County, Southeastern, N.C., 2/2001, etc.).

Because the Castle Hayne aquifer is shallower than the Cretaceous aquifer, it appears that it is also more vulnerable to hazardous substance contamination. Using a quick Web search, EPA

found four National Priority List (NPL) Superfund Sites which have already impacted and potentially threaten the Castle Hayne aquifer: FCX, Inc., Washington Plant, Cherry Point Marine Corps Air Station, Havelock, ABC One Hour Cleaners, Jacksonville, and Building 25 MWR Dry Cleaners, Camp LeLeune. There may be other Superfund sites which threaten the Castle Hayne aquifer. Some of the toxic contaminants already found in the Castle Hayne aquifer from some of these sites include cis and trans 1,2 dichloroethene, tetrachloroethene (PCE), trichloroethane (TCE), vinyl chloride, and mineral spirits. The Castle Hayne aquifer provides 100% of the drinking water for Camp LeJeune. Treatment of groundwater sources to remove toxic contaminants to acceptable health risk levels can be very cost prohibitive. There is extensive literature on this subject which can be readily obtained through one of the North Carolina Department of Environment and Natural Resources (NCDENR) or EPA web sites.

The City plans to accommodate future water demands (5.8 mgd in the year 2020) by extracting additional drinking water supplies from the Castle Hayne aguifer (page 3-14 of the ICI). While the quantity of water in the Castle Hayne aquifer may not be a limiting factor in terms of the future demands for drinking water, the quality and the cost to treat or purify the water to meet drinking water standards may be an important future constraint. Citing T. Roberts, et al., 'in late summer to early fall, Fe (Iron), NO3 (Nitrates), NH4 (Ammonium ions), and PO4 (Phosphates) concentrations in the Castle Hayne aquifer are significantly higher than during the spring and winter months. Cl (Chlorides) and SO₄ (Sulfates) vary with a constant ratio in both aquifers, suggesting saltwater intrusion as a probable source'. This study was conducted in northeastern New Hanover County which is probably less susceptible to salt water intrusion effects than the City of New Bern because of the relative distance to brackish water or seawater. According to T. Woods, et al., Geochemical tracers of Groundwater Movement between the Castle Hayne and Associated Coastal Plan Aquifers, 2/2000, "this study confirms previous results that indicate mixing within the Castle Hayne [aquifer] of freshwater and water with a dissolved salt composition similar to that of seawater". The removal of dissolved salts and other inorganic ions from drinking water sources can be technically complex and relatively very expensive per gallon of potable water.

Because of the shallow nature of the Castle Hayne aquifer (less than 100 feet in places), it is also far more susceptible to even small spills of hazardous substances. A large part of the proposed development plan for the project study area is commercial and industrial expansion and use. Many commercial and industrial facilities utilize hazardous substances in their operations and potentially create a much greater risk to primary drinking water supplies should there be accidental spills or releases. Citing page 3-14 of the ICI, Amital spinning and Tredegar Film are New Bern's second and sixth largest water uses, respectively. The ICI acknowledges that as economic development occurs within the project study area, increased demand would be placed upon local groundwater sources. Current and future truck traffic carrying hazardous materials along Glenburnie Road is proposed to be routed onto the new NC 43 Connector. Spills of hazardous materials along the new roadway could jeopardize future drinking water sources for the City of New Bern. EPA is requesting that the ICI and EA be substantially updated to reflect more current and comprehensive information on water supply and long-term drinking water quality issues.

Summary

EPA is requesting further clarification and information on noise receptor impacts, additional avoidance and minimization measures for wetland and stream impacts, additional information regarding a hazardous material site, impacts to prime agricultural lands, water supply issues and indirect and cumulative impacts to wetlands. EPA is very concerned that the promotion of development in the project study area resulting from the new access roadway may cause additional impacts to the natural environment with specific emphasis on jurisdictional wetlands. EPA is urging NCDOT to consider the initiation of a 'third-party' agreement which addresses future wetland and riparian buffer losses and compensatory mitigation from proposed development plans. NCDOT should also work with and support the City of New Bern's efforts to formalize and adopt its updated Regional Land Use Plan and to pro-actively work with the City of New Bern to formally adopt the ICI proposed recommendations.

While direct impacts to wetlands have been greatly reduced from early estimates and preliminary avoidance and minimization efforts have occurred for corridor placements, EPA is concerned that the indirect and cumulative effects to wetlands and riparian buffers and increased constraints on area drinking water supplies from accelerated development may represent a 'significant impact' to the 6 - 7 square mile project study area within Craven County.

EPA plans to stay actively involved in this Merger project. If you have any questions concerning EPA's comments, please contact Mr. Christopher Militscher of my staff at (919) 856-4206.

Singerely,

Heinz J. Mueller, Chief NEPA Program Office

Office of Policy and Management

cc: K. Jolly, USACE

NCDOT Responses to Comments from the US Environmental Protection Agency May 12, 2005

- 1. The NC 43 Connector is included as a proposed project on the New Bern, Bridgeton, Trent Woods, and River Bend Thoroughfare Plan (October 1993). The thoroughfare plan is a long-range transportation planning document that is mutually adopted by NCDOT and the involved municipal governments. The NC 43 Connector is included as one component in a system of improvements designed to accommodate design year traffic throughout the New Bern planning area. Specifically, this project is intended to provide an additional north-south radial route and provide some traffic relief to the parallel Glenburnie Road corridor.
- 2. The majority of farmland within the project study area is owned by Weyerhaeuser and Champion International and is currently in use for silviculture. Due to the proprietary nature of the subject, it is not known if Weyerhaeuser and Champion International are planning protective measures for any areas of their properties.

No agricultural operations would be affected by the proposed project or by future development.

- 3. To clarify, EA Section 4.8 states, "During the design phase, a design noise analysis would be conducted for the Preferred Alternative and would utilize the most recent revisions to the NCDOT noise abatement guidelines." In addition, the reasonableness of noise walls was re-evaluated using the updated guidelines in June of 2005. The re-evaluation found that the noise wall investigated for Alternatives D and D.1 near the east side of the Trent Creek subdivision, originally found to exceed the reasonableness guidelines, is now reasonable and should be considered. There are no feasible noise wall locations for Alternative E and E.1. For Alternative F and F.1, the noise wall originally recommended for consideration remains reasonable. This information was provided to the NEPA/404 Merger Team on June 16, 2005 and is discussed in Section H of the FONSI.
- 4. The City of New Bern must comply with regulations related to drinking water supply and quality, which would address any issues regarding New Bern's future water supplies. See Response No. 10.

The proposed project and future development within the City of New Bern's jurisdiction would be required to comply with the Neuse River Nutrient Sensitive Waters Management Strategy [15A NCAC 2B .0235(1)(g)], which includes provisions for stormwater management, including that there be no net increase in peak flow from pre-development conditions for the 1-year, 24-hour storm [15A NCAC 2B .0235(4)(a)(ii)]. The City of New Bern Stormwater Ordinance also requires the control of stormwater to predevelopment conditions for the 10-year, 24-hour storm. In addition to these regulations, stormwater and imperviousness would also be regulated by state stormwater management requirements for coastal counties [15A NCAC 2H .1005(3)], which include, among other items, impervious surface limitations for low-density development and infiltration systems for high-density development.

5. A Phase I Landfill Investigation Report (Delta Environmental Consultants, 1991), on file with the Craven County Economic Development Commission, identifies the area as an "inactive hazardous site," named for TEXFI Industries and cataloged as NCD981928088. Information on the site can be found in the USEPA Superfund Information Systems database of archived sites at http://cfpub.epa.gov/supercpad/arcsites/srchsites.cfm. 6. In accordance with guidelines provided by the Council on Environmental Quality (CEQ), the NCDOT identified "all relevant, reasonable mitigation measures that could improve the project... even if they are outside the jurisdiction of the lead agency of the cooperating agencies." It is the purpose of these recommendations to "alert agencies or officials who can implement these extra measures and encourage them to do so." (CEQ, 1986) (NCDOT, 2001).

CEQ guidance also states, "to ensure that the environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed" (CEQ, 1986) (NCDOT/NCDENR, 2001). The probability of implementation as well, as well as the steps taken to facilitate the implementation of mitigation measures were discussed in the EA. A summary of NCDOT's coordination efforts is included in the following paragraphs.

Recommendations contained in the ICI Assessment that were outside the NCDOT's jurisdiction were discussed with City of New Bern officials in a meeting on October 12, 2004. NCDOT provided the City with mapping of the ICI recommended measures contained in EA Exhibit 4.5.1 and ICI Assessment Exhibit 4.1.1. The City responded favorably to the recommended measures, as indicated in a letter dated December 10, 2004 and included in EA Appendix A.8. The City's letter stated, "many of the recommendations complement city initiatives to encourage more environmentally sound development" and that the City Manager anticipated "new ordinance provisions affecting either all properties within our jurisdiction or a specific overlay district for the project area".

The NCDOT coordinated with the City of New Bern in May and June 2005 on ICI issues raised in agency comments on the EA. In response to agency concerns regarding future drinking water supply and quality issues, the City issued a formal response and provided the City's 2002 Local Water Supply Plan and an Environmental Assessment Scoping Report for the proposed water treatment plant and well field, which is included in Appendix A.

The NCDOT met with City of New Bern officials on June 22, 2005 to discuss concerns raised by the NEPA/404 Merger Team at the June 16, 2005 meeting. In response to the Team's concerns, the City of New Bern developed a formal response to questions posed by the Merger Team, coordinated with Craven County to extend the City's extra-territorial jurisdiction (ETJ) to include most of the project study area, held a public hearing for the ETJ extension, created a Land Development Plan (LDP) that proposes the conservation area (aka wildlife movement corridor) and wetland protection areas identified in the NCDOT's ICI Assessment, and scheduled a public hearing for the LDP on June 26, 2005. In addition, the LDP expands on the ICI recommendations by also including a 100-foot buffer around the delineated wetlands, reducing and changing development densities and types as compared to those proposed in Build Scenario of the ICI Assessment, and proposing a 50-foot riparian buffer along the drainage ditch west of the Greenbrier community. This information was presented to the NEPA/404 Merger Team on July 13, 2005.

In addition to these measures, the City of New Bern will continue to manage development in compliance with existing state and federal regulations, including the CWA, CAMA, and the Neuse River Basin Nutrient Sensitive Waters Management Strategy (i.e., the Neuse River Buffer Rules) which provide regulatory controls for jurisdictional wetland and riparian buffer impacts associated with future development within the project study area. The City of New Bern Stormwater Ordinance also requires the control of stormwater to predevelopment conditions for the 10-year, 24-hour storm. In addition to these regulations, stormwater and

imperviousness would also be regulated by state stormwater management requirements for coastal counties [15A NCAC 2H .1005(3)], which include, among other items, impervious surface limitations for low-density development and infiltration systems for high-density development.

The adoption of a land use plan is the City of New Bern's responsibility as stipulated in the requirements of CAMA (15A NCAC 7B .0700). State and federal laws such as the CWA, CAMA, and the Neuse River Buffer Rules provide regulatory controls for jurisdictional wetland and riparian buffer impacts associated with future development within the project study area.

- 7. The purpose of this paragraph was to approximate the boundaries of future development based on existing constraints and the US 17 Bypass. The referenced sentence states that the US 17 Bypass would be a constraint for the development of land west of the project study area, as the controlled-access roadway would not permit direct access from the project study area to lands west of the bypass. This constraint would occur in the southern project study area regardless of the construction of the NC 43 Connector south of US 70.
- 8. As the USEPA states, there is no certainty that the USACE or the DWQ would issue permits for future and/or uncontrolled development within the project study area. In addition to CWA Section 404 and 401 permit controls, state and federal laws such as CAMA, Neuse River Basin Nutrient Sensitive Waters Management Strategy, and the Central Coastal Plain Capacity Use Area Rules would provide regulatory controls for future development within the project study area.
- 9. As stated in Response No. 6, the NCDOT identified, in accordance with CEQ guidelines, "all relevant, reasonable mitigation measures that could improve the project". This directive requires the discussion of mitigation measures both within and outside of the NCDOT's jurisdiction.

As discussed in *Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina*, which was developed by a Joint Agency Task Force including members of FHWA, NCDOT, NCDENR, and other agencies, "mitigation responsibility for indirect/cumulative effects of transportation projects proposed by NCDOT is based on the distinction between those effects that are within the control of the project agency and those that are outside the control of NCDOT, to the extent that such distinction is consistent with federal and state laws" (NCDOT/NCDENR, 2001). Under this definition, "encroachment-alteration" effects are considered to be within the NCDOT's control. "Induced growth and effects related to induced growth" are considered outside the NCDOT's control. State and federal regulations such as the CWA, CAMA, Neuse River Basin Nutrient Sensitive Waters Management Strategy, and the Central Coastal Plain Capacity Use Area Rules provide mechanisms for ICI control through permitting and compliance processes.

Page A-5 of the *Methodologies Framework for Indirect and Cumulative Impact Assessments*, contained in the ICI Assessment appendix, identifies the encroachment-alteration effects related to the NC 43 Connector. These effects include: habitat fragmentation, increased imperviousness related to the roadway, vehicular pollution, and noise. Measures to avoid and minimize these effects were decided upon through the NEPA/404 Merger Process.

10. The City of New Bern is responsible for supplying drinking water and ensuring that its quality conforms to existing drinking water standards. The City is also responsible for compliance with the Central Coastal Plain Capacity Use Area Rules. Appendix A contains a letter dated June 2, 2005 from Rivers and Associates Inc., on behalf of the City of New Bern, which addresses the USEPA's comments about the City's future water supply.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Raleigh Field Office Post Office Box 33726 Raleigh, North Carolina 27636-3726 April 7, 2005

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APR 15 2005

DIVISION OF HIGHWAYS
PDEA-OFFICE OF NATURAL ENVIRONMENT

Gregory J. Thorpe, Ph.D.
Project Development and Environmental Analysis
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

This letter is in response to your March 28, 2005 letter which requested comments from the U.S. Fish and Wildlife Service (Service) on the State Environmental Assessment (SEA) for the proposed NC 43 Connector from NC 55 to US 17, Craven County, North Carolina (TIP No. R-4463). These comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661-667d) and section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

The Service has participated in the Combined 404/NEPA Merger Process for this project and will continue to provide input during that process. At this time, the Service does not have any significant concerns for the project. The Service concurs that the project will have no effect on any federally listed species.

The Service does strongly support the proposed designation of a conservation area in the southwestern portion of the study area. Given the likelihood of secondary development within the study area and the accompanying impacts to terrestrial wildlife habitat, a conservation area would help minimize some these impacts. The wide alternative (2000 feet) is preferable to the narrow alternative (1000 feet). Consideration should be given to creating a wildlife passage under the proposed US 17 Bypass so as to not preclude wider movements of wildlife.

The Service believes that this SEA adequately addresses the existing fish and wildlife resources, the waters and wetlands of the United States, and the potential impacts of this proposed project on these resources. The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

Pete Benjamin

Ecological Services Supervisor

cc: Chris Militscher, USEPA, Raleigh, NC
Travis Wilson, NCWRC, Creedmoor, NC
Nicole Thomson, NCDWQ, Raleigh, NC
Bill Biddlecome, USACE, Washington, NC

NCDOT Response to Comments from the US Fish and Wildlife Service April 7, 2005

1. See Response Nos. 6 and 9 to USEPA's comments. To convey the USFWS's support of the recommendations to minimize ICIs outside the NCDOT's jurisdiction, copies of this letter were provided to the City of New Bern.



North Carolina Department of Environment and Natural Resources

Division of Coastal Management

Michael F. Easley, Governor

Charles S. Jones, Director May 12, 2005

William G. Ross Jr., Secretary

Dr. Gregory J. Thorpe, Ph.D.
Branch Manager
Project Development and Environmental Analysis Branch
NC Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1548

RE:

Environmental Assessment. NC 43 Connector, From NC 43/55 to US 17, Craven County, North Carolina. State Project No. 6.804857. TIP No. R-4463.

Dear Dr. Thorpe:

The N.C. Division of Coastal Management (DCM) appreciates the opportunity to comment on the Environmental Assessment (EA) for the above referenced project. DCM received a copy of the EA for review on 4/6/05.

The NC Department of Transportation (NCDOT) proposes the construction of a connector to NC 43, from existing NC 55/43 northwest of New Bern to existing US 17 east of New Bern in Craven County, NC. The proposed project is a four-lane, median-divided, partial access facility on new location. The total length of the proposed project is approximately 4.5 miles.

This project is being carried through the NEPA/404 Merger Process, and DCM is a member of the NEPA/404 merger project team. The NEPA/404 Merger Team reached Concurrence Point 2 on January 20, 2004. Three alternatives were selected, each with an optional northern terminus creating another three alternatives which were carried forward for consideration in the EA, but subsequently eliminated by the merger team. Concurrence Point 2A was reached on March 15, 2005. No major drainage structures will be required for any of the study alternatives. Wildlife crossing locations and size will be addressed during the final project design phase. The merger team has not reached Concurrence Point 3 (Least Environmentally Damaging Practicable Alternative - LEDPA).

The study area does not contain any Areas of Environmental Concern (AECs) as defined by the Coastal Area Management Act (CAMA); therefore, a CAMA permit is not required for the proposed project. However, the activity is in the coastal zone and will require a Federal permit (CWA §404), which triggers the requirements of Federal Consistency, 15 CFR 930, that includes that the applicant certify that the proposed activity will be conducted in a manner that is consistent with the State's coastal management program.

DCM review will commence when a copy of the consistency certification and all the information and data required by 15 CFR 930.58 is received. DCM has a maximum of six (6) months to either concur or object to the applicant's consistency certification. No license or permit can be granted by the Federal agency until the State has concurred with the applicant's certification.

1638 Mail Service Center, Raleigh, North Carolina 27699-1638
Phone: 919-733-2293 \ FAX: 919-733-1495 \ Internet: www.nccoastalmanagement.net

The following is a brief summary of DCM's comments on the Environmental Assessment.

1. Page S-1, S.2 Other Governmental Actions Required

"The project would also require a consistency determination from the NC Division of Coastal Management..." The following is intended to clarify this requirement.

NCDOT must provide in the USACE permit application a certification that, "The proposed activity complies with the enforceable policies of the North Carolina approved coastal management program and will be conducted in a manner consistent with such program". NCDOT shall furnish to the NC Division of Coastal Management a copy of the certification and necessary data and information. This determination is based on a review of the proposed project's conformance with the enforceable policies of North Carolina's coastal program, which are principally found in Chapter 7 of Title 15A of the North Carolina Administrative Code and through a review of the project's consistency with the appropriate CAMA Land Use Plans.

2. Page 4-2, 4.1.2 Development Trends

2

3

"The city is currently in the process of updating its land use plan, therefore, future land use mapping for all of New Bern is not yet available." The Coastal Resources Commission must certify any revisions to CAMA Land Use Plans. The proposed project must be consistent with applicable CAMA Land Use Plans in order to meet federal consistency requirements.

3. Page 4-16, 4.5 Indirect and Cumulative Impacts (ICI)

The project study area will experience indirect and cumulative impacts as a result of the R-4463 project, other NCDOT TIP projects in the vicinity, and anticipated future development. DCM supports and encourages the recommendations to avoid and minimize potential ICIs outlined in the EA and described in the Indirect and Cumulative Impact Assessment (January 2005).

If you or NCDOT has any questions or concerns about these comments, please contact me at (919) 733-2293 x230 or via e-mail at steve.sollod@ncmail.net. Thank you for your consideration of the North Carolina Coastal Management Program.

Sincerely,

Steven D. Sollod

DCM Transportation Project Coordinator

cc: Mr. Bill Arrington, NC Division of Coastal Management Mr. Bill Biddlecome, US Army Corps of Engineers Mr. Brian Wrenn, NC Division of Water Quality

NCDOT Responses to Comments from the NC Division of Coastal Management May 12, 2005

- 1. The discussion of DCM consistency requirements contained in EA Section 4.9.7 and summarizes the intent of the paragraph provided by the DCM.
- 2. Many cities include projected land uses and zoning in their land use plans; however, none of this information was available for the project study area at the time the ICI Assessment and EA were prepared. To more accurately discuss development trends and identify ICIs, coordination with the City of New Bern was required. This coordination does not affect the proposed project's consistency with the local CAMA land use plan, as the project is included in the New Bern Regional Land Use Plan (Wooten, 2000), which was prepared to satisfy requirements of the Coastal Area Management Act (CAMA) of 1974 (15A NCAC 7B). As stated EA Section 4.1.3:

Policy 2.222 of the New Bern land use plan references the *Urban Area Thoroughfare Plan for Bridgeton, New Bern, River Bend, and Trent Woods* (NCDOT, 1993), which includes the proposed NC 43 Connector (formerly known as Bosch Boulevard). The Thoroughfare Plan (as appended to the land use plan), identifies the proposed NC 43 Connector as a major thoroughfare that will "aid traffic flow... and provide access and travel for future development in one of New Bern's projected high growth areas."

3. See Response Nos. 6 and 9 to USEPA's comments. To convey the DCM's support of the recommendations to minimize ICIs outside the NCDOT's jurisdiction, copies of this letter were provided to the City of New Bern.



Alan W. Klimek, P.E. Director Division of Water Quality



May 6, 2005

MEMORANDUM

To:

Melba McGee

Through:

John Hennessy A

From:

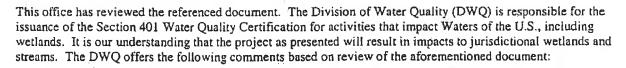
Nicole Thomson WO

Subject:

Comments on the Environmental Assessment related to proposed NC 43 Connector from NC 55 to

US 17, Craven County, WBS Element No. 35601.1.1, State Project No. 6.804857, TIP R-4463,

DENR Project Number 05-0294.



- A) This project is being planned as part of the 404/NEPA Merger Process. As a participating team member, the NCDWQ will continue to work with the team.
- B) After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. Based on the impacts described in the document, wetland mitigation will be required for this project. Should the impacts to jurisdictional wetlands exceed 1.0 acres, mitigation will be required in accordance with NCDWQ Wetland Rules {15A NCAC 2H.0506(h)(2)}.
- C) As part of the 401 Water Quality Certification Application process, NC DOT is respectfully reminded to include specifics for both onsite and offsite mitigation plans. If mitigation is required, it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. While "NCDWQ realizes that this may not always be practical, it should be noted that for projects requiring mitigation, appropriate mitigation plans will be required in conjunction with the issuance of a 401 Water Quality Certification. We understand that NC DOT will request compensatory mitigation through the NC Ecosystem Enhancement Program for offsite mitigation.
- D) Future documentation, including the 401 Water Quality Certification Application, should continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.
- E) An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis should conform to the NC Division of Water Quality Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.
- F) NC DOT is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.



NCDOT Response to Comments from the NC Division of Water Quality May 6, 2005

1. An Indirect and Cumulative Assessment was prepared for the proposed project and provided to the NEPA/404 Merger Team. This assessment was prepared in accordance with NCDOT/NCDENR Indirect and Cumulative Impact Assessment Guidance: Integrated NEPA/SEPA/401 Eight-Step ICI Assessment Process (January 2004).



🗎 North Carolina Wildlife Resources Commission 🗟

Richard B. Hamilton, Executive Director

MEMORANDUM

TO:

Melba McGee

Office of Legislative and Intergovernmental Affairs, DENR

FROM:

Travis Wilson, Highway Project Coordinator

Habitat Conservation Program

DATE:

May 11, 2005

SUBJECT:

North Carolina Department of Transportation (NCDOT) Environmental

Assessment (EA) for the proposed NC 43 Connector in Craven County, North

Carolina. TIP No. R-4463, SCH Project No. 05-0294.

Staff biologists with the N. C. Wildlife Resources Commission have reviewed the subject EA and are familiar with habitat values in the project area. The purpose of this review was to assess project impacts to fish and wildlife resources. Our comments are provided in accordance with certain provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

NCDOT proposes to extend NC 43 from NC 55 to US 17 west of New Bern. The total project length is approximately 4.5 miles. Estimated wetland impacts range from 0.8 to 4.3 acres with no anticipated stream impacts for the remaining alternatives

The primary purpose for the proposed project is economic development. NCDOT is proposing a four-lane median divided facility with partial control of access. This project will provide access to impact approximately 4,561 acres of undeveloped lands. Various wetland communities and their associated uplands provide habitat for a multitude of species in this area. Habitat fragmentation is widely noted as one of the greatest threats to native flora and fauna.

The Indirect and Cumulative Impact (ICI) analysis states the construction of this project will increase the rate of build out for this area by 23 percent to 90 percent build out at year 2030. Recommended mitigation measures for ICI as listed in the analysis include land use planning recommendation such as: low impact development, mixed land use, and open space

conservation. WRC supports these recommendations, however neither the EA nor the ICI address the implementation of these measures. WRC request these measures become project commitments to minimize the indirect and cumulative impacts associated with this project.

At this time, we concur with the EA for this project. Thank you for the opportunity to comment on this EA. If we can be of any further assistance please call me at (919) 528-9886.

cc: Gary Jordan, U.S. Fish and Wildlife Service, Raleigh
John Hennessy, DWQ, Raleigh
Bill Biddlecombe, U.S. Army Corps of Engineers, Washington
Steve Sollod, DCM, Raleigh

NCDOT Responses to Comments from the NC Wildlife Resources Commission May 11, 2005

- 1. Most undeveloped lands within the project study area are in use for silviculture and are accessible by existing paved roads and gravel logging roads. The project study area is anticipated to experience development regardless of the proposed project's construction and access to undeveloped lands would be created in either scenario. Habitat fragmentation effects would be created by the proposed project itself and will be mitigated through the construction of wildlife passages. As concurred upon by the NEPA/404 Merger Team on March 15, 2005, the exact locations and sizing of wildlife crossings will be addressed during the final design phase and will be subject to approval by the NC Wildlife Resources Commission.
- 2. See Response Nos. 6 and 9 to USEPA's comments. To convey the WRC's support of the recommendations to minimize ICIs outside the NCDOT's jurisdiction, copies of this letter were provided to the City of New Bern.



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor William G. Ross Jr., Secretary Division of Forest Resources

Stanford M. Adams, Director

411 Old US 70 West Clayton, NC 27520 April 8, 2005

MEMORANDUM

TO:

Melba McGee, Office of Legislative Affairs

FROM:

Bill Pickens, NC Division Forest Resources

SUBJECT:

NCDOT EA for NC43 Extension on New Location west of New Bern in Craven County

MAY 2005

05-0294 and TIP #R-4463

The North Carolina Division of Forest Resources (NCDFR) has reviewed the referenced EA and submit PROJECT #: the following comments concerning impacts to forest resources.

- 1. The proposed project has direct impacts to forest resources by the permanent loss of 80 94 acres of highly productive intensively managed forested lands due to ROW construction.
- 2. After consideration of direct impacts to forest resources the NCDFR supports the selection of Alternative D or D.1 as the preferred alternative since they impact the fewest forested acres and the least managed pine plantations. However, we have no objections with the selection of any of the other alternatives as the difference in acres impacted is small.
- 3. We encourage NCDOT to minimize and avoid impacts to forestland whenever possible during ROW planning.

NCDFR appreciates the opportunity to comment on the proposed project and looks forward to future correspondence in regard to this and future projects. I can be contacted at 919-553-6178 x 233 or by email at bill.pickens@ncmail.net..

Barry New cc:



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

April 29, 2005

MEMORANDUM

TO:

Melba McGee

HL

FROM:

Harry LeGrand, Natural Heritage Program

SUBJECT:

Proposed Extension of NC 43 from NC 55 to US 17 just west of New Bern;

Craven County; TIP # R-4463

REFERENCE: 05-0294

The Natural Heritage Program has no record of rare species, significant natural communities, or priority natural areas at the site nor within a mile of the project area. Although our maps do not show records of such natural heritage elements in the project area, it does not necessarily mean that they are not present. It may simply mean that the area has not been surveyed. The use of Natural Heritage Program data should not be substituted for actual field surveys, particularly if the project area contains suitable habitat for rare species, significant natural communities, or priority natural areas.

Because our Program is concerned about the loss of wetlands and natural communities of such habitats, we would prefer that the chosen alternative minimize the loss of wetland acreage. In addition, we would also like habitat fragmentation reduced as much as possible, by choosing an alternative that does not split the middle of the "non-roaded" landscape, even though on the aerial photographs it appears that the great majority of such undeveloped lands are pine plantations.



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| AND | State of Nor |
| NCDENR | Departmen |

State of North Carolina Department of Environment and Natural Resources

| Reviewing Office: | Ma | RC |
|-------------------|----|----|
| _ | | |

| Project Number: | 15-0294 Due | a Date: <u>5</u> | 111,05 |
|-----------------|-------------|------------------|--------|
| , -,, | | | |

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

After review of this project it has been determined that the DENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of this form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

| T | PERMITS | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS | Normal Process Time (Statutory Time Limit | |
|---|--|---|--|--|
| | Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters. | Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual. | 30 days (90 days) | |
| | NPDES-permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters. | Application 180 days before begin activity. On-site inspection preapplication conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later. | 90 - 120 days (N/A) | |
| | Water Use Permit | Preapplication technical conference usually necessary | 30 days (N/A) | |
| 1 | Well Construction Permit | Complete application must be received and permit issued prior to the installation of a well. | 7 days (15 days) | |
| | Dredge and Fill Permit | Dredge and Fill Permit Application copy must be served on each adjacent riparian property owner. On-site inspection. Preapplication conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit. | | |
| 3 | Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100, 2Q.0300, 2H.0600) | N/A | 60 days | |
| 2 | Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900 | | | |
| ঐ | Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 2D.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-733-0820. | N/A | 60 days (90 days) | |
| | Complex Source Permit required under 15 A NCAC 2D.0800 | | | |
| ۵ | The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) at least 30 days before beginning activity. A fee of \$50 for the first acre or any part of an acre. | | | |
| Ø | The Sedimentation Pollution Control Act of 1973 must be addressed with respect to the referenced Local Ordinance. | | 30 days | |
| | Sedimentation and erosion control must be addressed in given to design and installation of appropriate perimeter | n accordance with NCDOT's approved program. Particular attention should be er sediment trapping devices as well as stable stormwater conveyances and outlets. | | |
| | Mining Permit | On-site inspection usual. Surety bond filed with DENR. Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued. | 30 days (60 days) | |
| | North Carolina Burning permit | On-site inspection by N.C. Division of Forest Resources if permit exceeds 4 days | 1 day (N/A) | |
| | Special Ground Clearance Burning Permit-22 counties in coastal N.C. with organic soils. | On-site inspection by N.C. Division of Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned." | 1 day (N/A) | |
| - | | N/A | 90 - 120 days (N/A) | |



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF ENVIRONMENTAL HEALTH

Project # 05-0294 County Craven

Inter-Agency Project Review Response

| Comn | nents provided by: | | |
|-----------|---|-------------------------------|---------------------|
| | Regional Program Person | | UNITED STEASURES |
| x | Regional Supervisor for Public Water Sup | ply Section | |
| | Central Office program person | | |
| ∟ Name | : Fred Hill/ Harry Bailev Telephone #: (2 | 52) 946-6481 Date: <u>4/2</u> | 6/05 |
| Progr | am within Division of Environmental Health: | | |
| x | Public Water Supply | | |
| П | Other, Name of Program | | |
| Resp | onse (check all applicable): | | |
| x | No objection to project as proposed | | 2 13 14 15 15 TI |
| | No comment | | MAY 200 |
| | Insufficient information to complete review | , | Secretary So |
| | Comments attached | | To DOY OWER |
| x | See comments below | 3 | ES 30 318 18 30 318 |
| ublic ' | tives addressed have the potential to impact seve Water Systems that may be impacted are the City the project area and the Craven County Water Sy | y of New Bern (PWS ID# 04- | 25-010) on the |



North Carolina Department of Administration

Michael F. Easley, Governor

Gwynn T. Swinson, Secretary

May 18, 2005

Mr. Omar Sultan N.C. Department of Transportation Planning and Environmental Branch Transportation Bldg. - 1534 MSC Raleigh, NC 27611

Dear Mr. Sultan:

Re: SCH File # 05-E-4220-0294; FONSI; Proposed Extension of NC 43 from NC 55 to US 17 just west of New Bern in Craven County; TIP # R-4463

The above referenced environmental impact information has been reviewed through the State Clearinghouse under the provisions of the North Carolina Environmental Policy Act.

Attached to this letter are comments made by agencies in the course of this review. Because of the nature of the comments, it has been determined that no further State Clearinghouse review action on your part is needed for compliance with the North Carolina Environmental Policy Act. The attached comments should be taken into consideration in project development.

Best regards.

Sincerely,
Ohnyo Bryst

Ms. Chrys Baggett

Environmental Policy Act Coordinator

Attachments

cc: Region P

Mailing Address: 1301 Mail Service Center Raleigh, NC 27699-1301 Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail Chrys.Baggett@ncmail.net

Location Address: 116 West Jones Street Raleigh, North Carolina



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary



TO:

Chrys Baggett

State Clearinghouse

FROM:

Melba McGee

Environmental Review Coordinator

RE:

05-0294 EA for the Proposed NC 43 Connector in Craven

County

DATE:

May 13, 2005

The department asks that careful consideration be given to the attached comments. The applicant is encouraged to work directly with the department's review agencies prior to finalizing project plans.

Thank you for the opportunity to respond.

Attachments

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/



APPENDIX C

REFERENCES

REFERENCES

- Council on Environmental Quality (CEQ). 1986. Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act, as amended. 51 Federal Register 15618, April 25, 1986. http://ceq.eh.doe.gov/nepa/regs/40/40p1.htm
- Delta Environmental Consultants. December 1991. Phase I Landfill Investigation Report. Charlotte, NC.
- North Carolina Department of Transportation (NCDOT). 1993. New Bern, Bridgeton, Trent Woods, and River Bend Thoroughfare Plan. North Carolina Statewide Planning Branch. Raleigh, NC.
- North Carolina Department of Transportation/North Carolina Department of Environment and Natural Resources (NCDOT/NCDENR). 2001. Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina. Prepared by the Louis Berger Group, Inc. Cary, NC.
- North Carolina Department of Transportation/North Carolina Department of Environment and Natural Resources (NCDOT/NCDENR). 2004. Indirect and Cumulative Impact Assessment Guidance: Integrated NEPA/SEPA/401 Eight-Step ICI Assessment Process. Prepared by the Louis Berger Group, Inc. Cary, NC.
- North Carolina Department of Transportation (NCDOT). January 2004. Traffic Capacity Analysis for the NC 43 Connector Environmental Assessment. Prepared by Stantec Consulting Services Inc. Raleigh, NC.
- North Carolina Department of Transportation (NCDOT). February 2004. Air Quality Impact Analysis for the NC 43 Connector. Prepared by Stantec Consulting Services Inc. Raleigh, NC.
- North Carolina Department of Transportation (NCDOT). June 2004. Noise Impact Analysis for the NC 43 Connector. Prepared by Stantec Consulting Services Inc. Raleigh, NC.
- North Carolina Department of Transportation (NCDOT). October 2004. Natural Resources Technical Report *for* the NC 43 Connector. Prepared by Stantec Consulting Services Inc. Raleigh, NC.
- North Carolina Department of Transportation (NCDOT). January 2005. Indirect and Cumulative Impacts Assessment for the NC 43 Connector. Prepared by Stantec Consulting Services Inc. Raleigh, NC.
- North Carolina Department of Transportation (NCDOT). March 2005. Environmental Assessment for the NC 43 Connector. Prepared by Stantec Consulting Services Inc. Raleigh, NC.
- Wooten Company (Wooten). 2000. New Bern Regional Land Use Plan. Raleigh, NC.