

APPENDIX B3

INTEREST GROUP AND USACE PUBLIC NOTICE COMMENTS AND RESPONSES

Document Number	Agency/Organization	Date	Page Number
i001	Gaston 2012	06/30/09	B3-1
i002	Gaston Regional Chamber	06/16/09	B3-3
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**Comments in document u002 are identical to comments in document i012*

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Strategic Council

Mr. Don Harrison,
Chair
Mr. George Ratchford,
Chair-Elect

Ms. Joan Bolynn
Mr. Jerry Campbell
Mr. Joe Carpenter
Mr. Bob Clay
Ms. Elyse Cochran
Judge Harley Gaston
Mr. Ted Hall
Mr. Donny Hicks
Ms. Donna Lockett
Mr. Reeves McGlohon
Mr. Henry Massey
Mr. Frank Matthews
Ms. Regina Moody
Mr. Richard Randall
Dr. Patricia Skinner
Mr. Jan Winters

Action Team Chairs:

Mayor Bob Austell
Ms. Lisa Boggs
Ms. Cathy Kenzig
Mr. Gary Mims
Mr. Brad Rivers

**RESOLUTION ENDORSING THE NORTH CAROLINA TURNPIKE AUTHORITY'S
DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE GARDEN PARKWAY**

WHEREAS, Gaston 2012 is the implementation phase of Gaston County's Comprehensive Economic Development Strategy (CEDS), a ten-year vision for economic development and quality of life growth in Gaston County;

WHEREAS, the Transportation Action Team of Gaston 2012, Gaston Transportation Advisory Committee and Gaston Urban Metropolitan Planning Organization has deemed the Garden Parkway to be the top priority roadway project;

WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, none of them located in the southern half of Gaston County; and

WHEREAS, the projected growth in the southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties;

WHEREAS, the growing congestion in and around Gaston County could prohibit safe travel for residents of Gaston County;

NOW THEREFORE BE IT RESOLVED, that the Gaston 2012 Strategic Council endorses the Draft Environmental Impact Statement conducted by the North Carolina Turnpike Authority.

Don Harrison, Chair
Gaston 2012 Strategic Council
June 30, 2009

Appendix B3 – Interest Group Comments

**Table B3-1: Gaston 2012
Document: i001 letter dated June 30, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	General	<p>WHEREAS, the Transportation Action Team of Gaston 2012, Gaston Transportation Advisory Committee and Gaston Urban Metropolitan Planning Organization has deemed the Garden Parkway to be the top priority roadway project;</p> <p>WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, none of them located in the southern half of Gaston County; and</p> <p>WHEREAS, the projected growth in the southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties;</p> <p>WHEREAS, the growing congestion in and around Gaston County could prohibit safe travel for residents of Gaston County;</p> <p>NOW THEREFORE BE IT RESOLVED, that the Gaston 2012 Strategic Council endorses the Draft Environmental Impact Statement conducted by the North Carolina Turnpike Authority.</p>	Resolution acknowledged.



RESOLUTION ENDORSING THE NORTH CAROLINA TURNPIKE AUTHORITY'S DRAFT ENVIRONMENTAL IMPACT STUDY FOR THE GARDEN PARKWAY

1 WHEREAS, the Gaston Chamber of Commerce (DBA Gaston Regional Chamber) and the Economic Development Division of the Chamber exists to serve our more than 900 business members by providing networking opportunities, serving as their pro-business advocacy voice, promoting education/workforce development and economic development opportunities for all of Gaston County;

WHEREAS, the Transportation Advisory Council has deemed the Garden Parkway to be the top priority roadway project for the Gaston Urban Area Metropolitan Planning Organization region; and

WHEREAS, in 2005, Gaston County was designated as a 8-hour ozone non-attainment area where this project will improve air quality modeling and emission conditions for the metropolitan region; and

WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, with none of them located in the southern half of Gaston County; and

WHEREAS, a review of growth data indicates a 24 percent growth in residents from 2000 to 2008, and

WHEREAS, the projected growth in southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties; and

WHEREAS, south of I-85 in Gaston County, a lack of connecting east-west roadways makes travel circuitous and limits mobility for travel in southern Gaston County; and

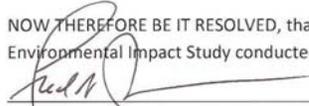
WHEREAS, between 1990 and 2000, southeastern Gaston County was the fastest growing part of the county and planned growth in southern Gaston County will result in an increased need for east-west mobility; and

WHEREAS, congestion and frequent accidents on I-85 inhibit regional travel and diminish the ability of I-85 to function as a Strategic Highway Corridor; and

WHEREAS, the Draft Environmental Impact Study (EIS) conducted by the North Carolina Turnpike Authority recommends construction of the Parkway in Phases; we encourage the NCTA to secure the entire right-of-way to I-85 for the project; and

WHEREAS, our organization is sensitive to the adverse affect (s) this project has on some property owners, our pledge of support is intended for the greater good of all citizens in Gaston County;

NOW THEREFORE BE IT RESOLVED, that Board of Directors of the Gaston Chamber of Commerce endorses the Draft Environmental Impact Study conducted by the North Carolina Turnpike Authority.


Fred Jackson, Chair of the Board

Adopted this 16th Day of June, 2009

Appendix B3 – Interest Group Comments

**Table B3-2: Gaston Regional Chamber
Document: i002 letter dated June 16, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	General	<p>WHEREAS, the Gaston Chamber of Commerce (DBA Gaston Regional Chamber) and the Economic Development Division of the Chamber exists to serve our more than 900 business members by providing networking opportunities, serving as their pro-business advocacy voice, promoting education/workforce development and economic development opportunities for all of Gaston County;</p> <p>WHEREAS, the Transportation Advisory Council has deemed the Garden Parkway to be the top priority roadway project for the Gaston Urban Area Metropolitan Planning Organization region;.....</p>	Resolution acknowledged.

RESOLUTION TITLE: RESOLUTION ENDORSING THE NORTH CAROLINA TURNPIKE AUTHORITY'S DRAFT ENVIRONMENTAL IMPACT STUDY FOR THE GARDEN PARKWAY

WHEREAS, the Gaston County Travel and Tourism Advisory Board was created by the Gaston County Board of Commissioners to provide opportunities for development of the travel and tourism industry, promoting County and regional attractions, and supporting economic development opportunities for all of Gaston County;

WHEREAS, the Transportation Advisory Council has deemed the Garden Parkway to be the top priority roadway project for the Gaston Urban Metropolitan Planning Organization region; and

WHEREAS, in 2005, Gaston County was designated as a 8-hour ozone non-attainment area where this project will improve air quality modeling and emission conditions for the metropolitan region; and

WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, with none of them located in the southern half of Gaston County; and

WHEREAS, a review of growth data indicates a 24 percent growth in residents from 2000 to 2008, and

1 WHEREAS, the projected growth in southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties; and

WHEREAS, south of I-85 in Gaston County, a lack of connecting east-west roadways makes travel circuitous and limits mobility for travel in southern Gaston County; and

WHEREAS, between 1990 and 2000, southeastern Gaston County was the fastest growing part of the county and planned growth in southern Gaston County will result in an increased need for east-west mobility; and

WHEREAS, congestion and frequent accidents on I-85 inhibit regional travel and diminish the ability of I-85 to function as a Strategic Highway Corridor; and

WHEREAS, the Draft Environmental Impact Study (EIS) conducted by the North Carolina Turnpike Authority recommends construction of the Parkway in Phases, we encourage the NCTA to secure the entire right-of-way to I-85 for the project; and

WHEREAS, our organization is sensitive to the adverse affect(s) this project has on some property owners, our pledge of support is intended for the greater good of all citizens in Gaston County;

NOW THEREFORE BE IT RESOLVED, that Gaston County Travel and Tourism Advisory Board endorses the Draft Environmental Impact Study conducted by the North Carolina Turnpike Authority.

Appendix B3 – Interest Group Comments

**Table B3-3: Gaston County Travel and Tourism Advisory Board
Document: i003 letter dated June 16, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	General	<p>WHEREAS, the Transportation Advisory Council has deemed the Garden Parkway to be the top priority roadway project for the Gaston Urban Metropolitan Planning Organization region; and WHEREAS, in 2005, Gaston County was designated as a 8-hour ozone non-attainment area where this project will improve air quality modeling and emission conditions for the metropolitan region; and</p> <p>WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, with none of them located in the southern half of Gaston County; and</p> <p>WHEREAS, a review of growth data indicates a 24 percent growth in residents from 2000 to 2008, and</p> <p>WHEREAS, the projected growth in southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties, and</p> <p>WHEREAS, south of I-85 in Gaston County, a lack of connecting east-west roadways makes travel circuitous and limits mobility for travel in southern Gaston County, and</p> <p>WHEREAS, between 1990 and 2000, southern Gaston County was the fastest growing part of the county and planned growth in southern Gaston County will result in an increased need for east-west mobility; and</p> <p>WHEREAS, congestion and frequent accidents on I-85 inhibit regional travel and diminish the ability of I-85 to function as a Strategic Highway Corridor; and</p> <p>WHEREAS, the Draft Environmental Impact Study (EIS) conducted by the North Carolina Turnpike Authority recommends construction of the Parkway in Phases, we encourage the NCTA to secure the entire right-of-way to I-85 for the project; and</p> <p>WHEREAS, our organization is sensitive to the adverse affect(s) this project has on some property owners, our pledge of support is intended for the greater good of all citizens in Gaston County;</p> <p>NOW THEREFORE BE IT RESOLVED, that Gaston County Travel and Tourism Advisory Board endorses the Draft Environmental Impact Study conducted by the North Carolina Turnpike Authority.</p>	<p>Resolution acknowledged. It is the intent of the NCTA to ultimately construct the entire Preferred Alternative from I-485 westward to I-85. However, as is typical with large transportation projects, it may need to be constructed in phases, depending on funding. The NCTA will continue to explore ways to acquire funding that would allow for the purchase of the entire right of way.</p> <p>At this time, based on available information, NCTA is planning on initially constructing the entire length of the project, with four lanes from I-485 to US 321 and two lanes from US 321 to I-85. The section from US 321 to I-85 would be upgraded to four lanes by 2035.</p>

RESOLUTION ENDORSING THE NORTH CAROLINA TURNPIKE AUTHORITY'S
DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE GARDEN PARKWAY

WHEREAS, Gaston Together was organized to bring the people and resources of Gaston County together to address unmet county/community needs achieved through the principles and best practices of collaboration, facilitation, promotion and the anticipation of possibilities;

WHEREAS, the implementation of Gaston 2012, a ten-year vision for economic development and quality of life growth in Gaston County is a pivotal function of Gaston Together;

WHEREAS, the Transportation Action Team of Gaston 2012, Gaston Transportation Advisory Committee and Gaston Urban Metropolitan Planning Organization has deemed the Garden Parkway to be the top priority roadway project;

WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, none of them located in the southern half of Gaston County; and

WHEREAS, the projected growth in the southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties;

WHEREAS, the growing congestion in and around Gaston County could prohibit safe travel for residents of Gaston County;

NOW THEREFORE BE IT RESOLVED, that Gaston Together endorses the Draft Environmental Impact Statement conducted by the North Carolina Turnpike Authority.



Bruce Hodge, Chair
Gaston Together Council
June 16, 2009

Appendix B3 – Interest Group Comments

Table B3-4: Gaston Together
Document: i004 letter dated June 16, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	General	<p>WHEREAS, the Transportation Action Team of Gaston 2012, Gaston Transportation Advisory Committee and Gaston Urban Metropolitan Planning Organization has deemed the Garden Parkway to be the top priority roadway project;</p> <p>WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, none of them located in the southern half of Gaston County; and</p> <p>WHEREAS, the projected growth in the southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties;</p> <p>WHEREAS, the growing congestion in and around Gaston County could prohibit safe travel for residents of Gaston County;</p> <p>NOW THEREFORE BE IT RESOLVED, that Gaston Together endorses the Draft Environmental Impact Statement conducted by the North Carolina Turnpike Authority.</p>	Resolution acknowledged.



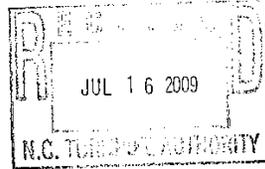
i005

PO Box 368, Belmont, NC 28012

www.montcrossareachamber.com

704-825-5307; Fax 704-825-5550

July 15, 2009



Ms. Harris:

Please find enclosed a copy of a resolution adopted July 14, 2009, by the Board of Directors of the Montcross Area Chamber of Commerce in Belmont, NC, endorsing the draft Environmental Impact Study for the Garden Parkway.

Our Chamber is headquartered in Belmont and works with businesses from Gastonia to Charlotte and in all of the small towns of eastern Gaston County.

Sincerely,

Ted Hall
President



i005

PO Box 368, Belmont, NC 28012

www.montcrossareachamber.com

704-825-5307; Fax 704-825-5550

**RESOLUTION ENDORSING THE NORTH CAROLINA TURNPIKE AUTHORITY'S
DRAFT ENVIRONMENTAL IMPACT STUDY FOR THE GARDEN PARKWAY**

WHEREAS, the Montcross Area Chamber of Commerce exists to serve more than 300 business members by providing networking opportunities, serving as their pro-business advocacy voice, promoting education/workforce development and economic development opportunities in Gaston County; and

WHEREAS, the Transportation Advisory Council has deemed the Garden Parkway to be the top priority roadway project for the Gaston Urban Area Metropolitan Planning Organization region; and

WHEREAS, in 2005, Gaston County was designated as a 8-hour ozone non-attainment area, and this project will improve air quality modeling and emission conditions for the metropolitan region; and

WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg counties and there are only four crossings of the river, with none of them located in the southern half of Gaston County; and

WHEREAS, a review of growth data indicates a 24 percent growth in residents from 2000 to 2008; and

WHEREAS, the projected growth in southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties; and

WHEREAS, south of 1-85 in Gaston County, a lack of connecting east-west roadways makes travel circuitous and limits mobility for travel in southern Gaston County; and

WHEREAS, between 1990 and 2000, southeastern Gaston County was the fastest growing part of the county and planned growth in southern Gaston County will result in an increased need for east-west mobility; and

WHEREAS, congestion and frequent accidents on 1-85 inhibit regional travel and diminish the ability of 1-85 to function as a Strategic Highway Corridor; and

WHEREAS, the Draft Environmental Impact Study (EIS) conducted by the North Carolina Turnpike Authority recommends construction of the Parkway in Phases, and we encourage the NCTA to secure the entire right-of-way to 1-85 for the project; and

WHEREAS, our organization is sensitive to the adverse affect (s) this project has on some property owners, our pledge of support is intended for the greater good of all citizens in Gaston County;

NOW THEREFORE BE IT RESOLVED, that Board of Directors of the Montcross Area Chamber of Commerce endorses the Draft Environmental Impact Study conducted by the North Carolina Turnpike Authority.

Edward Lunsford, Board Chair-Elect
Adopted this 14th day of July, 2009

Appendix B3 – Interest Group Comments

**Table B3-5: Montcross Area Chamber of Commerce
Document: i005 letter dated July 15, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	General	<p>WHEREAS, the Transportation Advisory Council has deemed the Garden Parkway to be the top priority roadway project for the Gaston Urban Area Metropolitan Planning Organization region; and</p> <p>WHEREAS, in 2005, Gaston County was designated as a 8-hour ozone non-attainment area, and this project will improve air quality modeling and emission conditions for the metropolitan region; and</p> <p>WHEREAS, limited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties and there are only four crossings of the river, with none of them located in the southern half of Gaston County; and</p> <p>WHEREAS, a review of growth data indicates a 24 percent growth in residents from 2000 to 2008; and</p> <p>WHEREAS, the projected growth in southern Gaston County and western Mecklenburg County will continue to increase demands for accessibility and connectivity between the two counties; and</p> <p>WHEREAS, south of I-85 in Gaston County, a lack of connecting east-west roadways makes travel circuitous and limits mobility for travel in southern Gaston County; and</p> <p>WHEREAS, between 1990 and 2000, southeastern Gaston County was the fastest growing part of the county and planned growth in southern Gaston County will result in an increased need for east-west mobility; and</p> <p>WHEREAS, congestion and frequent accidents on I-85 inhibit regional travel and diminish the ability of I-85 to function as a Strategic Highway Corridor; and</p> <p>WHEREAS, the Draft Environmental Impact Study (EIS) conducted by the North Carolina Turnpike Authority recommends construction of the Parkway in Phases, and we encourage the NCTA to secure the entire right-of-way to I-85 for the project; and</p> <p>WHEREAS, our organization is sensitive to the adverse affect(s) this project has on some property owners, our pledge of support is intended for the greater good of all citizens of Gaston County;</p> <p>NOW THEREFORE BE IT RESOLVED, that Board of Directors of the Montcross Area Chamber of Commerce endorses the Draft Environmental Impact Study conducted by the North Carolina Turnpike Authority.</p>	<p>Resolution acknowledged. It is the intent of the NCTA to ultimately construct the entire Preferred Alternative from I-485 westward to I-85. However, as is typical with large transportation projects, it may need to be constructed in phases, depending on funding. The NCTA will continue to explore ways to acquire funding that would allow for the purchase of the entire right of way.</p> <p>At this time, based on available information, NCTA is planning on initially constructing the entire length of the project, with four lanes from I-485 to US 321 and two lanes from US 321 to I-85. The section from US 321 to I-85 would be upgraded to four lanes by 2035.</p>



21 July 2009

Ms. Jennifer Harris, PE
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

RE: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE GASTON EAST-WEST CONNECTOR

Dear Ms. Harris,

Catawba RIVERKEEPER® Foundation, Inc. (hereinafter CRF) is a non-profit environmental conservation organization and has been registered as a 501 (c)(3) in North and South Carolina since 1997. CRF was issued a license by WATERKEEPER® Alliance, Inc., an international water conservation and advocacy organization headquartered in Irvington, NY, to be the sole Riverkeeper for the entire Catawba River watershed. Our primary office is located in Charlotte, NC.

CRF's mission is to advocate for and secure protection and enhancement of the Catawba River, its lakes, tributaries and watershed so that it will always sustain the human and wildlife populations that depend on it for life. With approximately 1200 members throughout the 17 counties that span the Catawba River watershed, CRF is the only local river conservation and advocacy organization focused solely on the protection and enhancement of the Catawba River.

Our purpose for providing comments on the Draft Environmental Impact Statement for the Gaston East-West Connector involves the protection of the Catawba River Basin. The participation of CRF and its member in the NC Turnpike Authority's (hereinafter The Authority) process for nearly a decade demonstrates our commitment to the formulation of a sustainable transit plan that will serve our region's ever-growing human populations while not endangering our impaired Catawba River system. Therefore, CRF respectfully submits these comments on behalf of the Catawba River, its watershed, and CRF members.

Gaston East-West Connector Does Not Meet Purpose and Need

The Authority states the following two-fold development purpose for the Gaston East-West Connector: (1) "improve mobility, access, and connectivity within southern Gaston County and between southern Gaston County and western Mecklenburg County" and (2) "improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area and improve high-speed, safe, reliable regional travel service along the I-85 corridor." The Authority also states that a route must provide more than a minor improvement to the typical transportation system user. If an alternative only provides minor improvements, the alternative must be considered not reasonable.

A WATERKEEPER ALLIANCE® Member
421 Minuet Ln Ste 205 Charlotte NC 28217-2784
Phone: 704-679-9494 Fax: 704-679-9559
www.catawbariverkeeper.org



1 The Authority's proposed Gaston East-West Connector does not meet its own project purpose and need guidelines. Specifically, the project will not meet the need to improve traffic flow on I-85 as referenced in The Authority's own preliminary traffic volume analysis. Furthermore, if
2 this Connector is partially built as currently proposed, it will not improve, but impede, traffic flow on US 321.

3 Additionally, the recommended DSA 9 route traverses 21.9 miles. If one travels along current roadway infrastructure from the recommended I-85 interchange of the Gaston East-West Connector to the southeastern corner of Charlotte-Douglas International Airport at West Blvd in Mecklenburg County, the distance traveled is similar, if not equal, to the distance of the recommended Gaston East-West Connector. This fact directly opposes the performance measure emphasizing the need to "reduce travel distances and/or travel times..." as stated in the Draft EIS.

Environmental Concerns

Topographical Change and Impervious Coverage

4 The recommended DSA 9 route travels 21.9 miles with a corridor width of 1,400 feet. This calculates to a corridor footprint area of approximately 161,884,800 ft² or 3,716 acres. In addition, DSA 9 crosses 91 streams and directly impacts 48,995 feet of Catawba River Basin waterways. A conservative estimate of paved area for this recommended route equals approximately 143,746,900 ft² or 3,300 acres. Construction and post-construction of the East-West Connector will result in alterations to the topography in Gaston County which directly affects local water interactions, such as surface water flow regimes and surface-groundwater interactions. For example, soil compaction during construction processes inhibits groundwater and stream recharge in a hydrologic region that has experienced increasing drought conditions over the past decade.

5 Construction of the East-West Connector will replace natural vegetation with impervious materials that will negatively impact water quality in Lake Wylie. According to one study, total runoff volume for a one-acre parking lot is about 16 times higher than the volume of runoff from a meadow.¹ In constructing the East-West Connector, The Authority will be replacing hundreds, possibly thousands, of acres of natural vegetation and farmland with impervious surfaces such as a parking lot. As stormwater runoff volume increases, stormwater velocities are likely also to increase. More impervious road surface will only negatively contribute to stream dehydration and inundation anomalies, also known as "flashy" urban runoff systems, encapsulated in NC Department of Environment and Natural Resource Division of Water Quality's 2006 303(d) list for Catawba Creek and Crowders Creek.

¹ Thomas R. Schueler and Heather K. Holland, "Impacts of Urbanization," *The Practice of Watershed Protection*, Center for Watershed Protection (2000) 7.

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Beyond impacts to stream integrity, stormwater runoff contributes to acidification, salinization and thermal warming in local streams. Attenuated releases of stormwater volumes are necessary to counteract these degrading impacts. With the South Fork Catawba River, Catawba Creek, Crowders Creek already federally listed at impaired water bodies, any additional impacts from construction could be imminently deleterious to wildlife and stream functioning.

Runoff velocity controls that mimic the natural release of stormwater during and after all types of precipitation events are necessary. If not implemented, stormwater runoff will increase bank instability, bank erosion, stream temperatures, salinity and acidity throughout the Project Area and downstream locations. This will further degrade Clean Water Act Section 303(d) listed impaired streams in Gaston County, such as Catawba Creek, South Fork Catawba River at Lake Wylie, and Crowders Creek. Stormwater runoff from road surfaces will transport further degrading impacts to stream reaches that may not currently be impaired in Gaston County. This conveyance of materials potentially impacts healthy and degraded waterways in York County, SC as well.

Construction Activities

The Authority's Draft EIS recognizes that construction activities undertaken for the installation of the Gaston East-West Connector introduces the potential for soil erosion. However, the Draft EIS states that soil erosion and sedimentation result in short-term impacts on water quality. CRF disagrees that soil erosion and sedimentation is a short-term impact. The NC Division of Water Quality recognizes sediment as the #1 pollutant in state waterways; and for this reason, The Authority cannot and should not consider sediment, a short-term consequence.

While The Authority mentions the development of an erosion and sedimentation plan according to NC guidelines, there are no indications that this plan will protect our waterways within the Catawba River Basin from increased sedimentation, some of which are already impaired by sedimentation and turbidity. The Federal Energy Regulatory Commission recently submitted their Draft EIS for the Duke Energy Hydroelectric Project 2232 which identifies road projects as a contributor to increased sedimentation into area reservoirs, including Lake Wylie. The Gaston East-West Connector continues this already acknowledge malignant practice.

To ensure no degradation to additional waterways, The Authority should guarantee adherence to measures above those approved under the NC Sedimentation Pollution Control Act, 15A NC Administrative Code 4A.0101 et seq. 2007. The Authority should publish their "stringent erosion-control schedule" as well as implement and maintain BMPs that are designed for the intense (25 year) rainfall events that are ever more frequent in this region. To help prevent offsite sedimentation and mitigate erosion potential, the clearing of more than 50 acres at any given time should not occur. This type of commitment to water quality protection could ensure no impacts to waters of the State.

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Recommended route, DSA 9, is among the alternative routes with the most floodway and floodplain crossings. The Authority notes that the effects on these hydraulically important areas "can be mitigated effectively through proper sizing and design of hydraulic structures (culverts, bridges, and channel stabilization)." Defined as "to moderate in force or intensity; alleviate" by the American Heritage Dictionary, The Authority's stated "mitigation" is for the road itself and not to alleviate damage or obstructions to the floodway, floodplain and/or creek. The Authority must establish and publicize the locations of local mitigation efforts to offset the development within any critical areas.

Cumulative Impacts

Under 40 C.F.R. § 1508.8 of the Council on Environmental Quality NEPA Regulations, The Authority must identify all direct, indirect and cumulative effects in the Draft EIS. The Authority's Draft EIS for the Gaston East-West Connector skims the indirect and cumulative effects to the surface waters in the Project Area. The 150-page Indirect and Cumulative Impacts Report does not even mention the impacts of increased light pollution in the vicinity of the Gaston East-West Connector.

Over time, there could be substantive accumulation and/or deposition of the common pollutants contained in runoff from the Connector area and the subsequently developed area such as, but not limited to, sediment, nutrients, polyaromatic hydrocarbons (petroleum by-products), heavy metals, fecal coliform, pesticides, and herbicides. In addition to greater stormwater volume, stormwater runoff from a residential land-use basin has higher concentrations of nutrients, fecal coliform bacteria, organic compounds, and heavy metals, such as copper, chromium, and lead, than do other land use types. Impervious surfaces prevent the capture of pollutants by natural vegetation, causing them to be washed into streams and lakes during periods of medium and heavy rainfall. The proposed East-West Connector has admitted that it will spur residential developments. These developments will cause large quantities of unfiltered pollutants to drain into Lake Wylie, a 303(d) Federally Impaired Water Body, causing its further impairment.

Elevated nutrient levels are already a major concern for Lake Wylie. The 2004 Catawba River Basinwide Water Quality Plan states, "Because of chlorophyll a standard violations, algal blooms and dissolved oxygen percent saturation values greater than 120 percent, Lake Wylie (4,200 acres, NC portion) is impaired by eutrophication." High nutrient levels cause such eutrophication.

Construction of residential developments will further diminish this already degraded lake. Nutrient levels found in areas burdened by impervious cover as compared to those areas permitted to remain natural are alarming. Phosphorus in runoff was found to be three times higher from a

2 Jerad D. Bales, J. Curtis Weaver, and Jerald B. Robinson, "Relation of Land Use to Streamflow and Water-Quality at Selected Sites in the City of Charlotte and Mecklenburg County, North Carolina, 1993-98."

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12 parking lot than a meadow.³ Similar results were obtained from a recent study comparing baseline nitrogen and phosphorus levels with nutrient levels collected after construction began in The Palisades development, also located along Lake Wylie.⁴ After construction commenced, spring nutrient levels increased significantly over baseline.⁵ In the summer, phosphorus levels more than doubled.⁶ Winter phosphorus levels increased nearly ten-fold after construction began.⁷ In this study, nutrients exceeded water quality criteria more than twice as often during construction.⁸

Additionally, construction of high-density residential developments catalyzed by the Gaston East-West Connector will inevitably increase nutrient levels in the lake. This is in complete contrast with the purpose of Lake Wylie's placement on the 303(d) list. Furthermore, urban renewal and enhancement programs for municipalities along the Gaston East-West Connector would be influenced negatively due to the satellite thoroughfare with sprawled development.

13 Habitat fragmentation induces the "edge-effect." Edge species such as Chinese privet, Japanese honeysuckle, and kudzu are not native and can choke native plant production. Fragmenting 3,716 acres around this project could increase mortality and morbidity of edge species such as deer. Known as crepuscular organisms, deer and other like species (i.e. bats, opossums, cats, and dogs) are most active during dawn and dusk periods. This activity schedule makes deer and other like organisms non-commuter-friendly, as travel peaks during dawn "to-work" and dusk "to-home."

In April 1994, the United States E.P.A. put forth guidelines to follow for roadway development.⁹ These guidelines follow:

- Take a "big picture" or ecosystem view
- Protect communities and ecosystems
- Minimize fragmentation- promote the natural pattern and connectivity of habitats
- Promote native species- avoid introducing non-native species
- Protect rare and ecologically important species
- Maintain or mimic natural ecosystem processes
- Maintain or mimic naturally occurring structural diversity
- Protect genetic diversity
- Restore ecosystems, communi ties, and species
- Monitor for biodiversity impacts, knowledge uncertainty, be flexible.

³ Scheuler and Holland 8 (Table 1).

⁴ Peter Phillips, "Open Space Preservation Equals River Protection," *The Conservator* (Newsletter of the Catawba Riverkeeper Foundation, Inc.) Winter 2004: 6-7.

⁵ Phillips 7.

⁶ Phillips 7.

⁷ Phillips 7.

⁸ Phillips 7.

⁹ Southerland, Mark. United States Environmental Protection Agency. "Evaluation of ecological impacts from highway development." EPA Contract No. 68-CO-0070, Work Assignment 2-06. April 1994.

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Recommendation

14 Because the proposed Gaston East-West Connector does not meet its own Purpose and Needs as stipulated by The Authority, the recommended DSA 9 should be discarded along with the DSAs discarded by the Draft EIS.

Potentially Beneficial Regional Alternative for Commuters

15 While the Draft EIS disregards Transportation System Management and Mass Transit Alternatives to the Gaston East-West Connector, CRF believes these options provide more long-term benefits to the people of Gaston and Mecklenburg Counties as well as the Catawba River Basin. Thus, for the purpose of the Gaston East-West Connection, CRF believes a Light/Heavy Rail commuter line along the existing railway connections or other transit corridors (i.e. I-85 or Hwy. 29-74) is most suitable to sustain the growth needs of this region. Although The Authority states that monies are not available currently for such a transit system, The Authority has also stated that monies do not exist to pay the projected \$1.2 billion in costs for the proposed Gaston East-West Connector – thus having payment for a project has not proven to be a deciding factor.

Conclusion

Catawba Riverkeeper Foundation, Inc. appreciates the opportunity to comment on the Draft EIS for the Gaston East-West Connector. If you have any questions, please do not hesitate to contact us. Our address is as follows: Catawba Riverkeeper Foundation; 421 Minuet Lane, Suite # 205; Charlotte, NC 28217

We hereby submit our comments electronically via the Internet.

Respectfully submitted,



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Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

Document: i006 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Purpose and Need for Action	The Authority’s proposed Gaston East-West Connector does not meet its own project purpose and need guidelines. Specifically, the project will not meet the need to improve traffic flow on I-85 as referenced in The Authority’s own preliminary traffic volume analysis.	<p>The purpose and need for the project is described in Sections 1.2 and 1.3 of the Draft EIS. The criteria used to evaluate the ability of alternatives to meet purpose and need also are listed in Section 1.3 of the Draft EIS. As discussed in Section 2.2.7, a New Location Toll Alternative would meet the project's purpose.</p> <p>Traffic forecasts, traffic operations, and regional travel demand statistics are described in detail in Appendix C of the Draft EIS for the No-Build Alternative, Improve Existing Roadways Alternatives, and New Location Alternatives. The Improve Existing Roadways Alternatives that include widening I-85 would achieve only minimal improvements to traffic flow on I-85. A widened I-85 (widened to 8-10 lanes) would continue to operate at LOS E and F in 2030. Most improvements to traffic flow achieved by increasing capacity would be offset by the increase in traffic volumes attracted to I-85. Therefore, a substantial investment in adding capacity to I-85 is not projected to result in substantial improvement in levels of service.</p> <p>The New Location Toll Alternative would reduce traffic volumes on I-85 primarily from NC 279 eastward compared to the No-Build Alternative, although levels of service would remain at LOS E or F in 2030. Similar to the Improve Existing Roadways Alternatives, there is not a large reduction in traffic volumes predicted to occur on I-85 because with the project in place, trips that are diverted to the Gaston East-West Connector from I-85 are replaced with different trips on I-85 that would like to use I-85 but had not in the past due to congestion. Overall, however, there is less congested vehicle hours and miles traveled with the New Location Toll Alternative in place, reducing the duration of congestion in the network.</p> <p>More importantly, however, the New Location Alternative provides an additional east-west route between Gaston and Mecklenburg Counties that would operate at LOS D or better through 2035, which is a traffic flow benefit that cannot be achieved under either the Improve Existing Roadways Alternatives or the No-Build Alternative. This additional new east-west route also improves the reliability of the east-west network. If an incident occurs on one of the local east-west routes or river crossings, the impact to travel would be less due to the additional option the new route provides.</p> <p>While existing and future deficiencies of I-85 and US 29-74 are acknowledged in the Draft EIS, improving these specific roadways are not identified as purposes for this project. The project purpose is to improve</p>

Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

Document: i006 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County.
2	Land Use and Transportation Planning	Furthermore, if this Connector is partially built as currently proposed, it will not improve, but impede, traffic flow on US 321.	<p>The ultimate project would extend from I-85 west of Gastonia to I-485 in Mecklenburg County, as described and evaluated in the Draft EIS. However, construction of large transportation projects such as the Gaston East-West Connector, I-485 in Charlotte, I-540 in Raleigh, etc., are typically constructed in phases as funding becomes available. Construction phases are determined after the environmental planning phase is completed based on availability of funding. The intent is to build as much of the project in the first phase as possible, with the remainder constructed as soon as possible after that. At this time, based on available information, NCTA is planning on initially constructing the entire length of the project, with four lanes from I-485 to US 321 and two lanes from US 321 to I-85. The section from US 321 to I-85 would be upgraded to four lanes by 2035.</p> <p>However, in order to respond to concerns expressed prior to, and as part of, the public review process for the Draft EIS, the NCTA studied traffic forecasts for a potential interim project phase ending at US 321. The studies indicate there would be an increase in traffic along US 321 from the Gaston East-West Connector north to Stagecoach Road for a distance of approximately 3/4 mile. Beyond Stagecoach Road, the traffic is estimated to generally be the same with or without the interim project phase. Under both an interim phase for the project and the ultimate project, a corridor-level analysis indicates US 321 would operate under capacity and at acceptable levels of service from Robinson Road to US 29-74 through the year 2030.</p>
3	Purpose and Need for Action	Additionally, the recommended DSA 9 route traverses 21.9 miles. If one travels along current roadway infrastructure from the recommended I-85 interchange of the Gaston East-West Connector to the southeastern corner of Charlotte-Douglas International Airport at West Blvd in Mecklenburg County, the distance traveled is similar, if not equal, to the distance of the recommended Gaston East-West Connector. This fact directly opposes the performance measure emphasizing the need to “reduce travel distances and/or travel times...” as stated in the Draft EIS.	Appendix C, Section C.2, of the Draft EIS lists travel time savings for representative origin/destination pairs under the No-Build Alternative, Improve Existing Roadway Alternative, and New Location Toll Alternative. The New Location Toll Alternative would reduce travel times compared to the No-Build Alternative for the representative origin/destination pairs. Also, see response to Comment 1 in the Catawba Riverkeeper’s letter (Document i006).
4	Water Resources	The recommended DSA 9 route travels 21.9 miles with a corridor width of 1,400 feet. This calculates to a corridor footprint area of approximately 161,884,800 ft or 3,716 acres. In addition, DSA 9 crosses 91 streams and directly impacts 48,995 feet of Catawba River Basin waterways. A conservative estimate of paved area for this	The 1,400-foot study corridor is the area where detailed information was collected in order to develop the preliminary engineering designs within the corridor. The minimum right of way for the preliminary engineering design mainline used in the Draft EIS is 300 feet. The preliminary

Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

Document: i006 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		recommended route equals approximately 143,746,900 ft or 3,300 acres. Construction and post-construction of the East-West Connector will result in alterations to the topography in Gaston County which directly affects local water interactions, such as surface water flow regimes and surface-groundwater interactions. For example, soil compaction during construction processes inhibits groundwater and stream recharge in a hydrologic region that has experienced increasing drought conditions over the past decade.	engineering design right of way used in the Draft EIS, including the mainline, interchanges, and cross-street improvements, encompasses approximately 1,760 acres. The paved area within this right of way would be substantially less. This footprint was further reduced for the Preferred Alternative after the Draft EIS as a result of the NEPA/404 Merger process Concurrence Point 4a (avoidance and minimization) (see Section 2.3 of the Final EIS), and the required right of way for the refined preliminary design is estimated to be 1,630 acres. The NCTA will follow all Best Management Practices (BMPs) required for the 401 Water Quality Certification, which must be obtained prior to project construction. An Erosion and Sediment Control/Stormwater Pollution Prevention Plan will be implemented and maintained during the construction of the project. This plan will incorporate the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit to Discharge Stormwater.
5	Water Resources	Construction of the East-West Connector will replace natural vegetation with impervious materials that will negatively impact water quality in Lake Wylie. According to one study, total runoff volume for a one-acre parking lot is about 16 times higher than the volume of runoff from a meadow. In constructing the East-West Connector, the Authority will be replacing hundreds, possibly thousands, of acres of natural vegetation and farmland with impervious surfaces such as a parking lot. As stormwater runoff volume increases, stormwater velocities are likely also to increase. More impervious road surface will only negatively contribute to stream dehydration and inundation anomalies, also known as “flashy” urban runoff systems, encapsulated in NC Department of Environment and Natural Resource Division of Water Quality’s 2006 303(d) list for Catawba Creek and Crowders Creek.	<i>A Quantitative Indirect and Cumulative Effects Analysis</i> has been prepared for the Preferred Alternative. This analysis is included in the Final EIS in Section 2.5.5 and provides additional information on potential water quality impacts. The NCTA will be required to obtain a Section 401 Water Quality Certification and a Section 404 Individual Permit for project impacts to Waters of the United States. Water quality modeling, which will include modeling of stormwater runoff, will be performed during the permit phase of the project. An Indirect and Cumulative Effects Quantitative Assessment was prepared for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS. This study estimated the changes in impervious surface in the Future Land Use Study Area under the No-Build and Build scenarios.
6	Water Resources	Beyond impacts to stream integrity, stormwater runoff contributes to acidification, salinization and thermal warming in local streams. Attenuated releases of stormwater volumes are necessary to counteract these degrading impacts. With the South Fork Catawba River, Catawba Creek, Crowders Creek already federally listed at impaired water bodies, any additional impacts from construction could be imminently deleterious to wildlife and stream functioning. Runoff velocity controls that mimic the natural release of stormwater during and after all types of precipitation events are necessary. If not implemented, stormwater runoff will increase bank instability, bank erosion, stream temperatures, salinity and acidity throughout the Project Area and downstream locations. This will further degrade Clean Water Act Section 303(d) listed impaired	See responses to Comment 5 in the Catawba Riverkeeper’s letter (Document i006). The NCTA must obtain a 401 Water Quality Certification from the NCDWQ prior to project construction and will meet all requirements for this permit.

Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

Document: i006 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		streams in Gaston County, such as Catawba Creek, South Fork Catawba River at Lake Wylie, and Crowders Creek. Stormwater runoff from road surfaces will transport further degrading impacts to stream reaches that may not currently be impaired in Gaston County. This conveyance of materials potentially impacts healthy and degraded waterways in York County, SC as well.	
7	Water Resources	<p>The Authority’s Draft EIS recognizes that construction activities undertaken for the installation of the Gaston East-West Connector introduces the potential for soil erosion. However, the Draft EIS states that soil erosion and sedimentation result in short-term impacts on water quality. CRF disagrees that soil erosion and sedimentation is a short-term impact. The NC Division of Water Quality recognizes sediment as the #1 pollutant in state waterways; and for this reason, The Authority cannot and should not consider sediment, a short-term consequence.</p> <p>While The Authority mentions the development of an erosion and sedimentation plan according to NC guidelines, there are no indications that this plan will protect our waterways within the Catawba River Basin from increased sedimentation, some of which are already impaired by sedimentation and turbidity. The Federal Energy Regulatory Commission recently submitted their Draft EIS for the Duke Energy Hydroelectric Project 2232 which identifies road projects as a contributor to increased sedimentation into area reservoirs, including Lake Wylie. The Gaston East-West Connector continues this already acknowledge malignant practice.</p>	NCTA recognizes that soil erosion and sedimentation can have both short-term and long-term impacts on water quality. Section 6.2.3 of the Draft EIS discusses soil erosion and sedimentation during construction as a short-term impact, but also lists "increased sediment loading and siltation as a consequence of watershed vegetation removal, erosion, and/or construction" as a potential impact. The erosion and sedimentation control plan to be prepared for the project is required to protect against runoff from a ten-year storm. The Section 401 Water Quality Certification required to be obtained from the NCDWQ will ensure the project is in compliance with applicable state water quality standards.
8	Water Resources	To ensure no degradation to additional waterways, the Authority should guarantee adherence to measures above those approved under the NC Sedimentation Pollution Control Act, 15A NC Administrative Code 4A.0101 et seq. 2007. The Authority should publish their “stringent erosion-control schedule” as well as implement and maintain BMPs that are designed for the intense (25 year) rainfall events that are ever more frequent in this region. To help prevent offsite sedimentation and mitigate erosion potential, the clearing of more than 50 acres at any given time should not occur. This type of commitment to water quality protection could ensure no impacts to waters of the State.	The NCTA is committed to follow all Best Management Practices (BMPs) required for the 401 Water Quality Certification, which must be obtained prior to project construction. An Erosion and Sediment Control/Stormwater Pollution Prevention Plan will be implemented and maintained during the construction of the project. This plan will incorporate the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit to Discharge Stormwater. NCDOT’s BMPs for the Protection of Surface Waters and Sedimentation Control guidelines will also be followed during project construction. NCTA will incorporate into the project design appropriate BMPs from NCDOT’s toolbox approved in January 2007 by NCDWQ for stormwater runoff.
9	Floodplains and Floodways	Recommended route, DSA 9, is among the alternative routes with the most floodway and floodplain crossings. The Authority notes that the effects on these hydraulically important areas “can be mitigated effectively through proper sizing and design of hydraulic structures (culverts, bridges, and channel stabilization).” Defined as “to moderate in force or intensity; alleviate” by the American Heritage Dictionary, The Authority’s stated “mitigation” is for the road itself and not to alleviate damage or obstructions to the floodway, floodplain and/or creek. The	A floodplain finding, in accordance with 23 CFR 650, Subpart A and Executive Order 11988, is included in the Final EIS in Section 2.5.2.7 . The NCTA will comply with all Federal Emergency Management Agency (FEMA) regulations regarding crossings of floodways and floodplains. Floodplain/floodway impacts are discussed in Section 4.7.3 of the Draft EIS. During final design of the Preferred Alternative, a detailed hydrologic and hydraulic analysis will be performed for each crossing location to

Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		Authority must establish and publicize the locations of local mitigation efforts to offset the development within any critical areas.	determine the actual size and configuration of each structure. Also, for all new location crossings on FEMA-regulated streams, a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) will be submitted to the NC Flood Mapping Program for streams in Gaston County and to Charlotte-Mecklenburg Storm Water Services for streams in Mecklenburg County. In National Flood Insurance Program (NFIP) flood hazard areas, the final hydraulic designs for the Preferred Alternative will ensure that the floodway will carry the 100-year flood without adversely affecting floodplain elevations.
10	Indirect and Cumulative Effects	Under 40 C.F.R. § 1508.8 of the Council on Environmental Quality NEPA Regulations, the Authority must identify all direct, indirect and cumulative effects in the Draft EIS. The Authority's Draft EIS for the Gaston East-West Connector skirts the indirect and cumulative effects to the surface waters in the Project Area. The 150-page Indirect and Cumulative Impacts Report does not even mention the impacts of increased light pollution in the vicinity of the Gaston East-West Connector.	In accordance with NCDOT procedure, a qualitative indirect and cumulative effects (ICE) report was completed and summarized in the Draft EIS Chapter 7. To aid in defining the scope of the qualitative ICE assessment, meetings were offered with numerous environmental resource and regulatory agencies (listed on page 7-2 of the Draft EIS). A quantitative ICE report has been prepared for the Preferred Alternative and is summarized in Section 2.5.5 of the Final EIS. Like other controlled-access transportation facilities, lighting will be installed only where warranted for safety reasons. Due to the minimal anticipated use of lighting, light pollution is not expected to be a significant impact related to the proposed project. During the public and agency scoping process for the project, light pollution was not mentioned as a potential issue of concern that should be addressed in the Draft EIS. There are no regulations associated with, nor thresholds of significance established for, light pollution issues in the project area.
11	Indirect and Cumulative Effects	Over time, there could be substantive accumulation and/or deposition of the common pollutants contained in runoff from the Connector area and the subsequently developed area such as, but not limited to, sediment, nutrients, polycyclic aromatic hydrocarbons (petroleum by-products), heavy metals, fecal coliform, pesticides, and herbicides. In addition to greater stormwater volume, stormwater runoff from a residential land-use basin has higher concentrations of nutrients, fecal coliform bacteria, organic compounds, and heavy metals, such as copper, chromium, and lead, than do other land use types. Impervious surfaces prevent the capture of pollutants by natural vegetation, causing them to be washed into streams and lakes during periods of medium and heavy rainfall. The proposed East-West Connector has admitted that it will spur residential developments. These developments will cause large quantities of unfiltered pollutants to drain into Lake Wylie, a 303(d) Federally Impaired Water Body, causing its further impairment. Elevated nutrient levels are already a major concern for Lake Wylie.	In accordance with NCDOT procedure, a qualitative indirect and cumulative effects (ICE) report was completed and summarized in the Draft EIS Chapter 7. A quantitative ICE report has been prepared for the Preferred Alternative and is summarized in Section 2.5.5 of the Final EIS. The study includes an estimate of the change in impervious surface in the Future Land Use Study Area under the No-Build and Build scenarios. Prior to commencement of this study, scoping with the environmental resource and regulatory agencies was conducted to ensure the study approach and scope met the expectations of the agencies. Detailed water quality modeling based on the quantitative assessment will be conducted as part of the permitting phase of the project.

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Table B3-6: Catawba Riverkeeper Foundation, Inc.

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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		The 2004 Catawba River Basin wide Water Quality Plan states, "Because of chlorophyll a standard violations, algal blooms and dissolved oxygen percent saturation values greater than 120 percent, Lake Wylie (4,200 acres, NC portion) is impaired by eutrophication." High nutrient levels cause such eutrophication.	
12	Indirect and Cumulative Effects	<p>Construction of residential developments will further diminish this already degraded lake. Nutrient levels found in areas burdened by impervious cover as compared to those areas permitted to remain natural are alarming. Phosphorus in runoff was found to be three times higher from a parking lot than a meadow. Similar results were obtained from a recent study comparing baseline nitrogen and phosphorus levels with nutrient levels collected after construction began in The Palisades development, also located along Lake Wylie. After construction commenced, spring nutrient levels increased significantly over baseline. In the summer, phosphorus levels more than doubled. Winter phosphorus levels increased nearly ten-fold after construction began. In this study, nutrients exceeded water quality criteria more than twice as often during construction.</p> <p>Additionally, construction of high-density residential developments catalyzed by the Gaston East-West Connector will inevitably increase nutrient levels in the lake. This is in complete contrast with the purpose of Lake Wylie's placement on the 303(d) list. Furthermore, urban renewal and enhancement programs for municipalities along the Gaston East-West Connector would be influenced negatively due to the satellite thoroughfare with sprawled development.</p>	See response to Comment 11 in the Catawba Riverkeeper's letter (Document i006).
13	Protected Species and Wildlife	Habitat fragmentation induces the "edge-effect." Edge species such as Chinese privet, Japanese honeysuckle, and kudzu are not native and can choke native plant production. Fragmenting 3,716 acres around this project could increase mortality and morbidity of edge species such as deer. Known as crepuscular organisms, deer and other like species (i.e. bats, opossums, cats, and dogs) are most active during dawn and dusk periods. This activity schedule makes deer and other like organisms non-commuter-friendly, as travel peaks during dawn "to-work" and dusk "to-home."	<p>Potential impacts relating to invasive species are discussed in Section 6.3.6.5 of the Draft EIS. To minimize opportunities for invasive species, the NCTA will comply with Executive Order 13112 - Invasive Species. Known invasive plant species will not be used in project activities and BMPs will be implemented to reduce the potential for spreading invasive species during construction.</p> <p>Habitat fragmentation was discussed in the qualitative indirect and cumulative effects analysis summarized in Chapter 7 of the Draft EIS. Detailed Study Alternative (DSA) 9, the Preferred Alternative, was noted as one of the DSAs with lesser indirect effects due to already existing habitat fragmentation. As stated in Section 6.3.6.2 of the Draft EIS, the NCTA will coordinate with the NCWRC, USFWS, and USEPA during final design on the feasibility and design of a wildlife passage at Stream S156. In addition, bridge crossings will be designed to be wildlife friendly when feasible.</p>

Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

Document: i006 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
14	Alternatives Considered	Because the proposed Gaston East-West Connector does not meet its own Purpose and Needs as stipulated by The Authority, the recommended DSA 9 should be discarded along with the DSAs discarded by the Draft EIS.	See response to Comment 1 in the Catawba Riverkeeper’s letter (Document i006).
15	Alternatives Considered	While the Draft EIS disregards Transportation System Management and Mass Transit Alternatives to the Gaston East-West Connector, CRF believes these options provide more long-term benefits to the people of Gaston and Mecklenburg Counties as well as the Catawba River Basin. Thus, for the purpose of the Gaston East-West Connector, CRF believes a Light/Heavy Rail commuter line along the existing railway connections or other transit corridors (i.e. I-85 or Hwy. 29-74) is most suitable to sustain the growth needs of this region. Although the Authority states that monies are not available currently for such a transit system, the Authority has also stated that monies do not exist to pay the projected \$1.2 billion in costs for the proposed Gaston East-West Connector – thus having payment for a project has not proven to be a deciding factor.	<p>The Draft EIS rigorously explored and objectively evaluated a range of reasonable alternatives as required by 23 CFR 771.123(c). The Addendum to the Final Alternatives Development and Evaluation Report for the Gaston East-West Connector (October 2008) (Alternatives Report), available on the NCTA website (www.ncturnpike.org) provides details of the evaluation. The agencies participating in the NEPA/Section 404 merger process for the project all signed Concurrence Point 2 (Identification of Detailed Study Alternatives), as discussed in Section 2.1.2 of the Draft EIS. The agencies include Federal Highway Administration, NC Turnpike Authority, NC Department of Transportation, US Army Corps of Engineers, US Fish and Wildlife Service, US Environmental Protection Agency, NC Division of Water Quality, NC Wildlife Resources Commission, NC State Historic Preservation Office, Gaston Urban Area MPO, and Mecklenburg-Union MPO.</p> <p>For alternatives eliminated from detailed study, brief discussions of reasons are included in Section 2.2 of the Draft EIS.</p> <p>Section 2.2.5.2 of the Draft EIS discusses mass transit and multimodal alternatives. Multimodal alternatives are defined as alternatives that include the Mass Transit Alternative together with improvements to existing roadways. The roadway improvements could include those described for the TSM Alternative or those described for the Improve Existing Roadway Alternatives. The multimodal alternative was considered in two ways in the Draft EIS: a version that includes improvements to transit and roadways along existing facilities and a version that includes improvements to existing roadways and transit on new location. The primary reason for eliminating mass transit and multimodal alternatives was their inability to meet the project’s purpose and need, as documented in the Draft EIS. The lack of financial feasibility was noted in Section 2.2.5.2 of the Draft EIS as an additional reason for finding that these alternatives were not reasonable alternatives.</p> <p>The GUAMPO supports the Gaston East-West Connector while also conducting separate studies of mass transit projects, as described in the 2035 Long Range Transportation Plan (LRTP). The GUAMPO 2035 LRTP is a comprehensive plan for all transportation modes in Gaston County. The LRTP prioritizes transportation projects for the area, including highway</p>

Appendix B3 – Interest Group Comments

Table B3-6: Catawba Riverkeeper Foundation, Inc.

Document: i006 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			<p>projects, transit projects, pedestrian projects, etc. The LRTP includes the Gaston East-West Connector as a top priority and also includes a number of public transportation projects to fulfill a variety of needs and to provide a comprehensive transportation system for the area.</p>

COMMENTS ON THE EAST-WEST CONNECTOR (GARDEN PARKWAY)

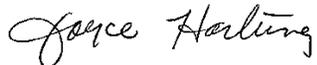
CONNECT GASTON

June 25, 2009

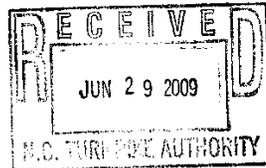
Connect Gaston is a diverse group of Gaston County citizens who have promoted the development of non-motor vehicle transportation options in our County since the early 1990s. We have been instrumental in expanding sidewalks and bikeways, implementing traffic calming devices, and greenway planning throughout the county. While we understand that thoroughfares are constructed for motor vehicle use, we believe the builders are obliged to consider the current and future needs of the pedestrian public. Specifically, we make these requests:

- 1
- 1) Bridges over streams be constructed in a manner that allows future walking and bike paths to pass beneath them
 - 2) All bridges over roads, and interchanges with roads, be constructed with sidewalks (north-south) that allow access from one side of the thoroughfare to the other.
 - 3) All sidewalks be constructed sufficient in width to allow foot, bike, wheelchair, and stroller traffic to move in both directions simultaneously.
 - 4) Bridges over the South Fork and Catawba Rivers be constructed with provisions for pedestrians to cross the rivers.

Thank you for your attention to these matters.



Joyce Hartung
Co-Chair, Connect Gaston



Appendix B3 – Interest Group Comments

Table B3-7: Connect Gaston
Document: i007 letter dated June 29, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Community Characteristics and Resources	Bridges over streams be constructed in a manner that allows future walking and bike paths to pass beneath them. All bridges over roads, and interchanges with roads, be constructed with sidewalks (north-south) that allow access from one side of the thoroughfare to the other. All sidewalks be constructed sufficient in width to allow foot, bike, wheelchair, and stroller traffic to move in both directions simultaneously. Bridges over the South Fork and Catawba Rivers be constructed with provisions for pedestrians to cross the rivers.	During final design, the NCTA will work with local jurisdictions to provide sidewalks and other crossings where appropriate and that can be funded.



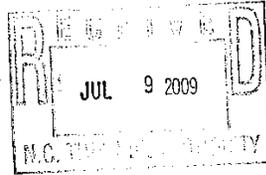
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 Darial Jackson
 Betsy Jones
 Beverly Kellar
 Kerri Massey
 George Osborne
 George Ratchford
 Jason Shoemaker

Ex-Officio:
 Elyse Cochran
 Jennie Stultz

Ms Jennifer Harris, PE
 NC Turnpike Authority
 1578 Mail Service Center
 Raleigh NC
 27699-1578



Dear Ms Harris,

I am the chairman of the Gaston 2012 Greenways Action Team. This team is a group of individuals from every major municipality in the county. Its membership includes planners, various city and county officials, and other concerned citizens including a County Commissioner. The team submits these requests regarding the construction of the East-West Connector in Gaston County:

Interchanges

- 1 [All interchanges need to be constructed with sidewalk access from one side of the toll road to the other. Sidewalks must be sufficient in width to accommodate both wheelchairs and foot traffic in both directions.

Overpasses

- 2 [At points where the toll road crosses a road, the span beneath the bridge must be wide enough on either side of the road to allow future greenway construction.

South Fork and Catawba River Bridges

- 3 [These bridges must be constructed with ADA appropriate walkways across the rivers, accessible from both sides of the toll road. These walkways must be separated safely from motor vehicles, and preferably, on a grade separate from that of motor traffic.

Stream / Riparian Crossings

There are several points at which the toll road crosses places where greenways have already been planned in the county. At these points, bridges must be constructed in a manner that will allow greenway construction beneath them. These points include:

- Blackwood Creek
- Brandon Creek
- Catawba Creek
- An unnamed perennial branch just south of the 29-74 interchange

4 [Additionally, there is a greenway planned to follow a section of Crowders Creek, which follows closely along the west side of the proposed toll road route south of Linwood Road. We request that right-of-way acquisitions, etc., take this greenway project into consideration.

We have included a map of Connector project, with a color-coded overlay of the master plan for greenways in that area of the county. We also request that our Team be included in the discussions when the aforementioned needs are addressed by the Turnpike Authority.

Sincerely,

Gary Mims

Gaston 2012 Action Team Chair
 935 Churchill Dr
 Gastonia NC
 28054

MimsG@GMH.ORG

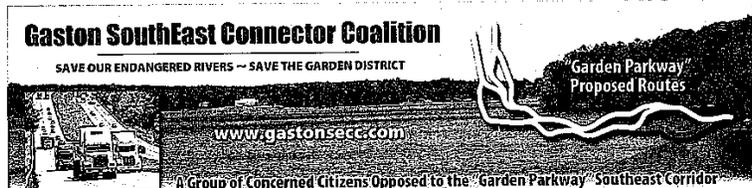
(704) 834-3526

Appendix B3 – Interest Group Comments

Table B3-8: Gaston Together

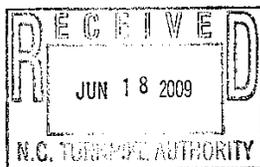
Document: i008 letter dated July 9, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Community Characteristics and Resources	All interchanges need to be constructed with sidewalk access from one side of the toll road to the other. Sidewalks must be sufficient in width to accommodate both wheelchairs and foot traffic in both directions.	During final design, the NCTA will work with local jurisdictions to provide sidewalks and other crossings where appropriate and that can be funded.
2	Community Characteristics and Resources	At points where the toll road crosses a road, the span beneath the bridge must be wide enough on either side of the road to allow future greenway construction.	During final design, the NCTA will work with local jurisdictions to provide sidewalks and other crossings where appropriate and that can be funded.
3	Community Characteristics and Resources	These bridges must be constructed with ADA appropriate walkways across the rivers, accessible from both sides of the toll road. These walkways must be separated safely from motor vehicles, and preferably, on a grade separate from that of motor traffic.	Any sidewalks determined to be warranted and reasonable and feasible will be construction in accordance with the requirements of the American's with Disabilities Act (ADA).
4	Community Characteristics and Resources	<p>There are several points at which the toll road crosses places where greenways have already been planned in the county. At these points, bridges must be constructed in a manner that will allow greenway construction beneath them. These points include:</p> <ul style="list-style-type: none"> • Blackwood Creek • Brandon Creek • Catawba Creek • An unnamed perennial branch just south of the 29-74 interchange <p>Additionally, there is a greenway planned to follow a section of Crowders Creek, which follows closely along the west side of the proposed toll road route south of Linwood Road. We request that right-of-way acquisitions, etc., take this greenway project into consideration. We have included a map of Connector project, with a color-coded overlay of the master plan for greenways in that area of the county. We also request that our Team be included in the discussions when the aforementioned needs are addressed by the Turnpike Authority.</p>	The Special Project Commitments section of the Draft EIS states that during final design, NCTA will coordinate with the Gaston Urban Area Metropolitan Planning Organization and the Catawba Lands Conservancy to identify needed accommodations for any existing and funded greenways that cross the Preferred Alternative. These agencies will be able to bring other groups into the coordination process if determined necessary.



June 2009

David W. Joyner, Executive Director
 North Carolina Turnpike Authority
 1578 Mail Service Center
 Raleigh, NC 27699-1578



Subject: Proposed Garden Parkway in Gaston County

Dear Mr. Joyner,

Following the Garden Parkway public workshops in August of 2008, a group of Gaston County property owners formed the Gaston Southeast Connector Coalition (SECC). The objective of our group was twofold:

1. Help educate the public and the NCTA about the area that would be impacted by alternatives 5, 23, 64 and 77.
2. Provide input as to why the "southern route" would not be a wise choice for the citizens and taxpayers of North Carolina.

In the fall of 2008 and before the release of the EIS, our group presented a petition to the NCTA and various officials that contained approximately 1,200 signatures of Gaston County property owners who were opposed to the southern route. Today, this letter is intended as an official response from the SECC to the April 2009 Garden Parkway EIS.

1 [We would like to commend the NCTA on the contents and recommendations contained in the EIS. It is very obvious to us that this reflects an exhaustive effort by a team of professionals who made a genuine effort to do the job right. We are particularly impressed by what appears to be a lack of political influence over the decision making process. From the beginning we were told that would be the case. It is refreshing and reassuring to see that you concentrated on gathering and presenting the facts, then based your recommendation on the facts as presented.

2 [After reviewing the EIS, we agree with your recommendation of Alternative #9. We can clearly see where you weighed each of the criteria in an unbiased, fact-based manner before arriving at your conclusion. While each of the 12 alternatives would result in an array of human and environmental consequences, #9 has the least overall impact, and for that reason, it is the best choice moving forward.

Gaston SouthEast Connector Coalition
 9019 Wing Point Drive, Belmont NC 28012
 www.gastonsecc.com

Gaston SouthEast Connector Coalition
 9019 Wing Point Drive, Belmont NC 28012
 www.gastonsecc.com

While we're in agreement with your recommendation, there were two issues our group raised during the investigative process that we feel need to be given further weight:

- 3 [1. There is a definite potential for dangerous fog to form near the South Fork River crossing along the southern route. While state policy seems to favor addressing fog issues after a road is built, we do not believe this is a wise approach to a known problem.
- 4 [2. Blowing fly ash has been observed and documented in the area near the Catawba River crossing along the southern route. Again, we believe known hazards like this should be avoided before a road is built instead of afterward, when it is too late to do anything about it.

Looking forward, we acknowledge the state's current financial situation and its potential impact on the Garden Parkway. Regardless of financing and potential delays, we strongly believe that a route needs to be finalized per the published schedule, so that all of us can proceed with our lives. As long as the path of the highway is in question, property values throughout southern Gaston County will be negatively impacted.

Thank you for your consideration and for a job well done.

Sincerely,

Gaston SouthEast Connector Coalition

Appendix B3 – Interest Group Comments

Table B3-9: Gaston Southeast Connector Coalition

Document: i009 letter dated June 18, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Comment Noted	We would like to commend the NCTA on the contents and recommendations contained in the EIS. It is very obvious to us that this reflects an exhaustive effort by a team of professionals who made a genuine effort to do the job right. We are particularly impressed by what appears to be a lack of political influence over the decision making process. From the beginning we were told that would be the case. It is refreshing and reassuring to see that you concentrated on gathering and presenting the facts, then based your recommendation on the facts as presented.	Comment acknowledged.
2	Alternatives Considered	After reviewing the EIS, we agree with your recommendation of Alternative #9. We can clearly see where you weighed each of the criteria in an unbiased, fact-based manner before arriving at your conclusion. While each of the 12 alternatives would result in an array of human and environmental consequences, #9 has the least overall impact, and for that reason, it is the best choice moving forward.	DSA 9 has been identified as the Preferred Alternative and the Least Environmentally Damaging Practicable Alternative, as described in the Final EIS.
3	Land Use and Transportation Planning	There is a definite potential for dangerous fog to form near the South Fork River crossing along the southern route. While state policy seems to favor addressing fog issues after a road is built, we do not believe this is a wise approach to a known problem.	Fog is addressed in Section 3.2.6.2 of the Draft EIS. As stated in this section, in accordance with NCDOT normal operating procedures, fog-related safety issues will be evaluated on a case-by-case basis after construction, and measures installed where warranted.
4	Hazardous Materials	Blowing fly ash has been observed and documented in the area near the Catawba River crossing along the southern route. Again, we believe known hazards like this should be avoided before a road is built instead of afterward, when it is too late to do anything about it.	Duke Power Company LLC has an Air Quality Permit (Permit Number 03757T33 - effective from January 5, 2009 to December 31, 2013) from the NC Department of Environment and Natural Resources Division of Air Quality (NCDAQ) to operate the Allen Steam Station. Dust and particulate emissions from processes (e.g. flyash transfer, rail car unloading, etc.) and fugitive non-process dust emission sources are regulated in the permit. For example, a condition in the permit states (page 32): "The Permittee shall not cause or allow fugitive non-process dust emissions (i.e., particulate matter that is not collected by a capture system and is generated from areas such as pit areas, process areas, haul roads, stockpiles, and plant roads) to cause or contribute to substantive complaints (i.e., complaints that are verified with physical evidence acceptable to the DAQ)."

Wright, Ashley K

From: Ed [EdE@carolina.rr.com]
Sent: Friday, July 17, 2009 11:23 PM
To: gaston@ncturnpike.org; Office of the Governor
Subject: DEIS air quality comments for STIP No. U-3321
Attachments: DEIS for Gaston East- West Connector STIP No. 3321.doc

Ms. Jennifer Harris, PE
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, North Carolina 27699-1578

Ms. Harris,

Please accept the attached questions and comments regarding the Gaston East/ West Connector and also relevant research for NAAQS and Mobile Source Air Toxics into the public record.

Thank You,
Ed Eason

Ms. Jennifer Harris, PE
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, North Carolina 27699-1578

July 17, 2009

Re: DEIS comments regarding the Gaston East-West Connector STIP No. U-3321

Please accept the following questions and comments regarding the Gaston East-West Connector and also relevant research for NAAQS and Mobile Source Air Toxics into the public record. My questions and comments are in blue print.

1 Why are the citizens' of Charlotte & Raleigh metro areas required to pay an additional "toll/tax" to fund their road projects when tax dollars will likely fund the Shelby, Winston-Salem, and the Fayetteville bypasses? The selection of projects that the NCTA is currently pursuing does not specify that an entire corridor be tolled, only in select areas. To only choose a few projects within a corridor is arbitrary and capricious.

2 The traffic numbers hardly justify the money and resources to build this facility, not to mention, the devastating effect it will have to the physical and natural environments.

3 The NCTA & FHWA's arguments that the new build DSA "Alternative 9" has no direct or indirect air quality impacts to Sadler, Forest Heights, and WA Bess Elementary and Forestview High School(s) and residential areas are spurious.

4 Although lengthy, the final technical air quality memorandum appears to primarily focus on enough information necessary to cross any regulatory hurdle it may encounter, but it lacks substance. The FHWA Interim Guidance on MSAT Research Data is not current, as the latest cited research is in 2005 (FHWA Interim Guidance Appendix C, February 2006). EPA will release the official Motor Vehicle Emission Simulator (MOVES) model at the end of 2009, and this model also effectively determines pollutants at the project level. FHWA is faced with a lack of monitoring data in most areas for use in establishing project-specific MSAT background concentrations because air quality agencies avoid placing air monitors near roadways that are used to ascertain the regional air quality for NAAQS. Mobile sources contribute a significant amount of air emissions for the Charlotte area. According to NCDENR/DAQ, "automobiles are the largest contributor to NC's air pollution. Although automobile technology has greatly improved over the years, the total pollution from vehicles is rising. More people are driving, and traveling longer distances than ever. As a result, our air pollution worsens and roads become more congested" (<http://daq.state.nc.us/motor/trans/>).

According to the final technical air quality memorandum, the FHWA had this to say about unavailable or incomplete information: "Some recent studies have reported that proximity to roadways is related to adverse health outcomes, particularly respiratory problems^{3,4}. Much of this research is not specific to MSATs, instead surveying the full spectrum of both criteria and other pollutants. The FHWA cannot evaluate the validity of these studies, but more importantly, they do not provide information that would be useful to alleviate the uncertainties listed above and enable us to perform a more comprehensive evaluation of the health impacts specific to this project."

3 South Coast Air Quality Management District, Multiple Air Toxic Exposure Study II (2000); Highway Health Hazards, The Sierra Club (2004) summarizing 24 Studies on the relationship between health and air quality; NEPA's Uncertainty in the Federal Legal Scheme Controlling Air Pollution from Motor Vehicles, Environmental Law Institute, 35 ELR 10273 (2005)

with health studies cited therein.

4 Department of Preventive Medicine, University of Southern California Los Angeles, et. al. *Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study.* The Lancet, (2007).

5 [Based on what is contained in the Draft Environmental Impact Statement, I would say that the FHWA/NCTA is not capable of or is unwilling to conduct a comprehensive evaluation of any health impacts at all. The United States Court of Appeals for the DC Circuit had this to say about agency’s dismissal of empirical studies when they remanded the annual PM (NAAQS): “[T]he Criteria Document found that new studies of a cohort of children in Southern California have built upon earlier limited evidence to provide fairly strong evidence that long-term exposure to fine particles is associated with development of chronic respiratory disease and reduced lung function growth.” On this record, therefore, it appears the EPA too hastily discounted the Gauderman and 24-cities studies as lacking in significance. See *Am. Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 241 (D.C. Cir. 2008) (agency’s inadequate explanation for dismissing empirical studies rendered decision arbitrary and capricious); cf. *ATA I*, 175 F.3d at 1052–53 (EPA arbitrarily and capriciously placed upon some studies “higher information threshold” than it placed upon others.”)

6 [Can the FWHA please explain why they view EPA’s vehicle and fuel regulations with such certainty while they ignore all health impact studies as inconclusive to make decisions where a highway should be located? The Clean Air Scientific Advisory Committee had this to say about uncertainties in a 2006 letter: “While there is uncertainty associated with the risk assessment for the PM_{2.5} standard, this very uncertainty suggests a need for a prudent approach to providing an adequate margin of safety.” The FWHA/NCTA approach of denial to this complex problem is far from prudent. There have been hundreds of peer reviewed research articles linking proximity to roadways with harmful health effects from the late 1990’s to the present.

The National Petrochemical & Refiners Association had this to say about EPA’s MSAT phase II (fuel) standards: “The Agency (EPA) optimistically projects that the net effect of this MSAT Phase 2 proposal on gasoline supplies will be potentially zero.¹ As justification for this projection, EPA believes that the proposed averaging, banking and trading (ABT) program with the 0.62 vol% benzene level is: 1) feasible; 2) would be met without extreme economic consequences; and 3) that all refineries would be able to comply. National Petrochemical & Refiners Association is not so sanguine” (71 FR 15804) Docket ID No. EPA-HQ-OAR-2005-0036.

Particulate Matter & Health Effects

I understand that Gaston and Mecklenburg Counties are currently in attainment for PM_{2.5}, but to my knowledge, Gaston has no monitor for PM_{2.5} while Mecklenburg’s annual standard is 14.9µg/m³. The annual (NAAQS) is currently 15 µg/m³. The FHWA projects that the trucking industry will be responsible for a 75 % increase in freight tonnage by 2020, and the proposed intermodal facility at the Charlotte/Douglas International Airport and expansions at the ports will substantially increase truck traffic on the proposed freeway. As a result, the diesel particulate matter and exhaust organic gases, from truck exhaust, will be closer to existing homes and schools, etc.

According to the EPA and independent studies, elevated concentrations of particulate matter, criteria pollutants, and mobile source air toxics, through monitoring, have been found to be significantly higher within 1000 to 1500 feet (particulate matter) from a major roadway. Meteorology, traffic type and volume, and topography are factors that can alter this distance.

Motor vehicle emissions generally occur within the breathing zone, near-road populations can be exposed to “fresh” primary emissions as well as combustion pollutants “aged” in the atmosphere. For particulate matter, these fresh versus aged emissions can result in the presence of varying particle sizes near roadways, including ultra-fine, fine and coarse particle modes. The proximity of schools and homes to major roads can result in elevated exposures (for children) due to potentially increased concentrations indoors and increased exposures during outdoor activities from many sources, including vehicle exhaust. A review of the literature determined that approximately 80% of diesel particulate matter can penetrate indoors. Meteorological factors can affect exposures to motor vehicle emissions near the road. Studies suggest that ambient temperature variation can also affect particle number gradients near roads substantially. Wind direction affects traffic-related air pollution mass concentrations inside and outside schools near motorways, and diurnal variations in mixing layer height will influence both near- road and regional air pollutant concentrations too. Decreases in the height of the mixing layer (due to morning inversions, stable atmosphere, etc.) will lead to increased pollutant concentrations at both local and regional scales. (Control of Hazardous Air Pollutants from Mobile Sources Chapter EPA February 2007). The EPA Motor Vehicle Emission Simulator (MOVES) model will be released in 2009, and it covers a broad range of pollutants. The MOVES model is effective at determining pollutants at the project level. The official MOVES model is replacing the EPA mobile 6.2 model at the end of 2009. (<http://www.epa.gov/otaq/models/moves/index.htm>).

On February 24, 2009, the U.S. Court of Appeals for the D.C. Circuit remanded the National Ambient Air Quality Standards (NAAQS) for fine particulate matter (PM_{2.5}) to EPA for reconsideration of the annual level of the standard (which EPA left at 15 micrograms per cubic meter (µg/m³)) and reconsideration of the secondary PM_{2.5} NAAQS. With respect to the annual PM_{2.5} NAAQS, the court held that the agency “failed to explain adequately why an annual level of 15 µg/m³ is ‘requisite to protect the public health,’ including the health of vulnerable subpopulations, while providing ‘an adequate margin of safety.’ 42 U.S.C. § 7409(b)(1).”

The Clean Air Scientific Advisory Committee Recommendations Concerning the Final Rule for the National Ambient Air Quality Standards for particulate matter was between 12 and 14 µg/m³ and had this to say: “The CASAC recommended changes in the annual fine-particle standard because *there is clear and convincing scientific evidence that significant adverse human-health effects occur in response to short-term and chronic particulate matter exposures at and below 15 µg/m³, the level of the current annual PM_{2.5} standard.* The CASAC affirmed this recommended reduction in the annual fine-particle standard in our letter dated March 21, 2006 concerning the proposed rule for the PM NAAQS, in which 20 of the 22 members of the CASAC’s Particulate Matter Review Panel — including all seven members of the chartered (statutory) Committee — were in complete agreement. While there is uncertainty associated with the risk assessment for the PM_{2.5} standard, this very uncertainty suggests a need for a prudent approach to providing an adequate margin of safety. *It is the CASAC’s consensus scientific opinion that the decision to retain without change the annual PM_{2.5} standard does not provide an “adequate margin of safety... requisite to protect the public health” (as required by the Clean Air Act), leaving parts of the population of this country at significant risk of adverse health effects from exposure to fine PM.*”

The current administration stated that they would use sound science and the rule of law, and follow the advice of scientific advisors in making their decisions. Based on previous monitoring data, an annual standard of 12 and 14 µg/m³ would place the Charlotte Metro area in non-attainment for particulate matter. **Before a Record of Decision, will a project- level and**

7

7

conformity determination be made for particulate matter? In drafting Section 176(c) of the Clean Air Act Amendments of 1990, Congress clearly sought to ensure that the federal government be subject to and comply with the same federal, state, interstate and local requirements, administrative authority and sanctions with respect to the control and abatement of air pollution, in the same manner and to the same extent, as any non-governmental entity. Federal agencies are to be afforded no special privileges and may do no less than non-governmental entities.

The Gauderman et al study in the journal Lancet found elevated levels of PM 2.5 (1500 feet) from roadways. These include coarse, fine, and ultra-fine carbon particles emitted directly from vehicle tailpipes, and road dust entrained by passing vehicles. They go on to state: “We have shown that residential distance from a freeway is associated with significant deficits in 8-year respiratory growth, which result in important deficits in lung function at age 18 years. This study adds to evidence that the present regulatory emphasis on regional air quality might need to be modified to include consideration of local variation in air pollution. In many urban areas, population growth is forcing the construction of housing tracts and schools near busy roadways (and vice versa), with the result that many children live and attend school in close proximity to major sources of air pollution. In view of the magnitude of the reported effects and the importance of lung function as a determinant of adult morbidity and mortality, reduction of exposure to traffic-related air pollutants could lead to substantial public-health benefits. Children who lived within 500 m of a freeway (motorway) had substantial deficits in 8-year growth of forced expiratory volume in 1 s (FEV1, -81 mL, p=0.01 [95% CI -143 to -18]) and maximum midexpiratory flow rate (MMEF, -127 mL/s, p=0.03 [-243 to -11]), compared with children who lived at least 1500 m from a freeway. Joint models showed that both local exposure to freeways and regional air pollution had detrimental, and independent, effects on lung-function growth. Pronounced deficits in attained lung function at age 18 years were recorded for those living within 500 m of a freeway, with mean percent-predicted 97.0% for FEV1 (p=0.013, relative to >1500m [95% CI 94.6–99.4]) and 93.4% for MMEF (p=0.006 [95% CI 89.1–97.7]).

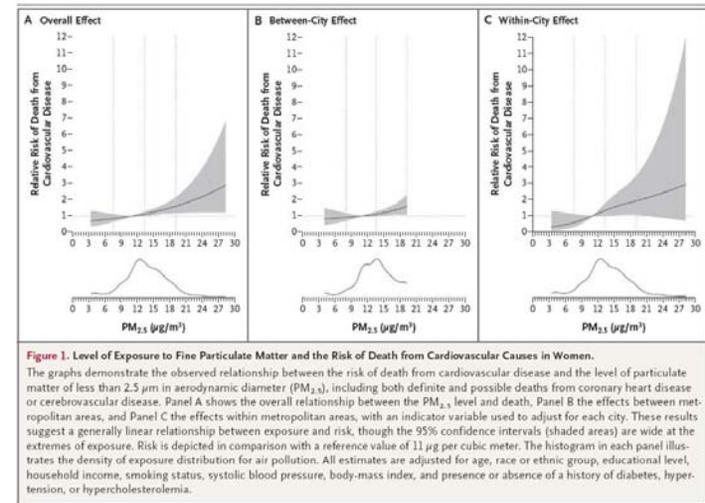
Local exposure to traffic on a freeway has adverse effects on children’s lung development, which are independent of regional air quality, and which could result in important deficits in attained lung function in later life” (Department of Preventive Medicine, University of Southern California Los Angeles, WJ Gauderman, H. Vora, R. McConnell et al., *Effect of Exposure to Traffic on Lung Development from 10 to 18 Years of Age: A Cohort Study*. The Lancet, 2007.)

Cardiovascular Impacts: Risk of Fatal and Nonfatal Cardiovascular Events in Women Increases at Annual Average Concentrations below Current Standard

Using data from the Women’s Health Initiative (WHI), an observational study of cardiovascular disease in 66,000 women in 36 U.S. cities, researchers demonstrated that female residents of cities and neighborhoods with higher levels of fine particulate matter experience higher rates of death and infirmity from heart disease and strokes than residents of cleaner cities. Medical records were reviewed for indications of death from coronary heart disease or stroke, and for bypass surgery, heart attack and non-fatal strokes. The women were ages 50 to 79 when enrolled in the study and had no prior history of heart disease. They were followed for six years. Air pollution concentrations were based on the monitor nearest each woman’s residence. This study is significant because it is one of the first to rely on direct measurements of fine particle concentrations. Annual average PM2.5 concentrations

varied from 3.4 to 28.3 µg/m3, with a mean concentration of 13.4 µg/m3. Increased exposure to PM2.5 was associated with increased risk of stroke, heart problems, and death from heart disease. Adjustment for other pollutants did not alter the findings for PM2.5.

The figure below illustrates how the risk of death rose as the concentrations of the pollutant increased, relative to a reference value of 11 µg/m3. The current annual average standard for PM2.5 is 15 µg/m3.



Researchers concluded that: “Our study provides evidence of the association between long-term exposure to air pollution and the incidence of cardiovascular disease. Our study confirms previous reports and indicates that the magnitude of health effects may be larger than previously recognized. These results suggest that efforts to limit long-term exposure to fine particulate pollution are warranted.”

Writing in an accompanying editorial, Dr. Douglas W. Dockery of the Harvard School of Public Health and Dr. Peter H. Stone of the Harvard Medical School note that this study established a stronger statistical association between fine particulate air pollution and death from coronary heart disease than found in earlier studies. The WHI study reported a 76

percent increased risk of death from cardiovascular disease for every increase of 10 $\mu\text{g}/\text{m}^3$ in the mean $\text{PM}_{2.5}$ concentration, as compared to a 12 percent increase reported in the American Cancer Society cohort study. Referring to EPA's last review of the NAAQS for particulate matter (American Lung Association 2008). The authors' also note, "Unfortunately for public health, the EPA failed to follow the recommendation of its science advisors and reduce the long-term standard for fine particles. The findings of the WHI study strongly support the recommendation for tighter standards for long-term fine particulate air pollution" (Miller KA, Siscovick DS, Sheppard L, Shepherd K, Sullivan JH, Anderson GL, Kaufman JD. Long-term exposure to air pollution and incidence of cardiovascular events in women. *N Engl J Med* 2007; 356:447-458 Dockery DW and Stone PH. Cardiovascular Risks from Fine Particulate Air Pollution *N Engl J Med* 2007; 356:511-513.)

Chronic Exposures to Fine Particles Have Larger, Cumulative Effects on Mortality

This review article examines PM-mortality associations reported in short-term and longer term epidemiological studies. The short-term studies look at the effect of day to day changes in ambient PM. Long-term studies look at spatial variability in longer-term cumulative or average exposures between cities. Effect estimates are generally much larger with long-term exposures. The figure below integrates evidence from different time scales of exposure, illustrating increased estimates of PM effects with increasing lengths of exposure (American Lung Association 2008).

The figure below integrates evidence from different time scales of exposure, illustrating increased estimates of PM effects with increasing lengths of exposure.

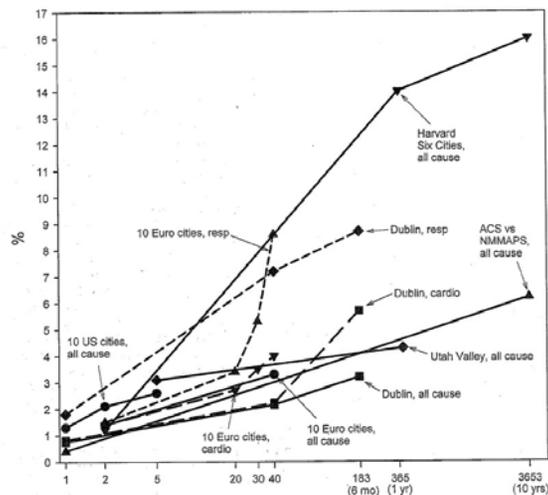


FIG. 1. Comparison of percent change in risk of mortality associated with an increment of 10 $\mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$ or 20 $\mu\text{g}/\text{m}^3$ PM_{10} or BS estimated for different time scales of exposure (approximate number of days, log scale).

"Short-term exposure studies appear to be observing more than just short-term mortality displacement because there is little evidence of short-term compensatory reduction in deaths and there are generally large estimated PM effects for intermediate and longer-term time scales of exposure. The evidence suggests that the short-term exposure studies capture only a small amount of the overall health effects of long-term repeated PM exposure. Adverse health effects are dependent on both exposure concentrations and length of exposure, and long-term exposures" (Pope, C. Arden III. Mortality effects of longer term exposures to fine particulate air pollution: review of recent epidemiological evidence. *Inhalation Toxicology* 2007; 19 (Suppl. 1): 33-38.

Reduction in Particle Concentrations Below U.S. EPA Standards Would Increase Life Expectancy

This extended follow-up of the Harvard Six Cities Study explored the effect of dose and timing of dose on the association between $\text{PM}_{2.5}$ and survival. The study found that the association between exposure to fine particles and increased risk of death continues well below the U.S. EPA standard of 15 $\mu\text{g}/\text{m}^3$. The researchers reported finding little evidence for a threshold. While earlier time-series studies have found a similar association of *daily* particle levels with increased mortality, this is the first detailed examination of the question in a cohort study examining *annual* exposures. Additionally, the study reported that the deaths associated with exposure to fine particles occur primarily within two years of exposure. This implies that reductions in air pollution can be expected to produce rapid improvements in public health (American Lung Association 2008 from Schwartz J, Coull B, Laden F, Ryan L. The Effect of Dose and Timing of Dose on the Association between Airborne Particles and Survival. *Environ Health Perspect* 2008; 116:64-69).

Traffic, Air Pollution, and Health

"An enlarging body of research evidence indicates that exposure to traffic-related air pollution adversely affects health. The relevant evidence includes monitoring data on the characteristics of near-roadway pollution, the penetration of traffic-generated particles indoors, and the existence of hot spots of pollution in heavily trafficked areas. Epidemiological studies have linked indicators of exposure to traffic to adverse health effects, although the particular pollutants mediating these effects are still not identified. Additionally, difficult methodological issues call for caution in interpreting the epidemiological findings; there is potential for uncontrolled confounding, exposure measures are subject to misclassification, and uncertainty is not fully accounted for nonetheless, the evidence raises concern about a threat to public health that will be managed with great difficulty. Exposures to traffic reflect the amount of traffic and the coupling of emissions from traffic to pollutant concentrations in the environments where people spend time. Control will require both reduced emissions and increased separation of people from emissions. There is a need for further research to refine our understanding of the health consequences of traffic exposures and as a basis for formulating mitigation policies. While we continue to obtain further evidence, prudent, "no-regret" strategies to reduce exposures merit consideration" (Samet, Jonathan M. (2007) 'Traffic, Air Pollution, and Health', *Inhalation Toxicology*, 19:12, 1021 – 1027).

Cardiovascular Disease and Air Pollutants: Evaluating and Improving Epidemiological Data Implicating Traffic Exposure

“In order to examine the impacts of researcher subjectivity and the source apportionment methods used, the U.S. Environmental Protection Agency (EPA) sponsored a comparability study across seven different research groups. In that study, each group analyzed identical exposure data from Washington, DC, and

Phoenix AZ, and generally found similar findings for the major sources of PM concentrations, including traffic (Thurston et al., 2005). Interestingly, the authors noted that the variability across source types was greater than the variability across the different investigators. Incorporating the identified factors into a health analysis resulted in the identification of positive associations between cardiovascular deaths and traffic and sulfate sources. This review demonstrates that higher concentrations of traffic-related pollutants, traffic source factors, closer proximity to traffic sources, and periods spent in traffic have been associated with adverse cardiovascular health effects in many studies using a wide variety of methodologies. These different studies complement each other, and appear to consistently implicate traffic as an important source of with respect to the cardiovascular health effects of air pollution. In fact, the use of several different study designs provides added support for these findings since each method has its own strengths and weaknesses. For example, in-vehicle exposure studies provide good evidence

of association between traffic exposures and short-term changes in cardiovascular health. In summary, we found consistent evidence from a variety of study designs that links traffic-related pollution with adverse cardiovascular health outcomes. Although not yet conclusive, there is growing evidence that traffic may be an especially important source of pollution. Future work is needed, however, to distinguish the toxicity of traffic-related emissions and the specific components responsible. It may not, for example, be wise to use only government monitoring station data to build a land-use regression for traffic-related exposures since often these monitors are sited away from roadways” (Adar, S. D. and Kaufman, J. D. 2007 ‘Cardiovascular Disease and Air Pollutants: Evaluating and Improving Epidemiological Data Implicating Traffic Exposure’, Inhalation Toxicology, 19:1, 135–149.)

The following expert testimony was admitted into evidence for health effects on PM 2.5 in the North Carolina vs. TVA Nuisance lawsuit: NC Exh. 242 is a 2006 expert report commissioned by the EPA for reasons entirely unrelated to this lawsuit. In light of the resulting objectivity, the Court finds the report to be uniquely compelling in the area of premature mortality resulting from PM2.5 exposure.

-PM2.5 exposure has significant negative impacts on human health, even when the exposure occurs at levels at or below the NAAQS (Transcript at 1076-77; NC Exh. 467 at 1, 3).

Premature Mortality Exposure to – and inhalation of – air containing PM2.5 is 90-100% certain to cause premature mortality in humans (Transcript at 1037-38, 1130-31; NC Exh. 242 at viii, 3-23, 3-24.5).

Specifically, PM exposure and inhalation can have the following effects on human health, any or all of which can lead to premature death:

(a) *Systemic inflammatory response.* PM inhalation causes pulmonary inflammation, which in turn tends to cause a more general system-wide inflammation in the body. This inflammation impacts platelet function, which contributes to the development of blood clots – a common cause of heart attacks and strokes (NC Exh. 468 at 3; Transcript at 916-18).

(b) *Vascular reactivity.* Systemic inflammation can also cause changes in vascular activity that decreases the amount of blood flow to important organs, including the heart and brain. Specifically, it affects the ability of blood vessels to remain sufficiently dilated for adequate blood flow to tissues. Such blood vessels also become less responsive to drugs designed to increase blood flow-including coronary blood flow (NC Exh. 468 at 3-4; Transcript at 915-16).

(c) *Cardiac rhythms.* PM inhalation also causes neurological changes affecting reflexes and autonomic control of cardiac rhythms. This can result in heart rate variability and ultimately arrhythmia, the immediate cause of death in most fatal heart attacks (NC Exh. 468 at 3; Transcript at 911-15).

(d) *Infant mortality.* There is a growing body of evidence that infant deaths can be linked to changes in ambient PM. Such infant deaths are attributable to respiratory problems and sudden infant death syndrome (SIDS) (NC Exh. 467 at 1). All of the above is from the District Court of the United States for the Western District of North Carolina Asheville Division Civil No. 1:06CV20)

8 [Recently, North Carolina was successful in an injunction against the Tennessee Valley Authority and successful in litigation against EPA regarding the Clean Air Interstate Rule. The TVA was required to install millions of dollars in pollution control equipment for a few facilities to prevent particulate matter from affecting the health of NC citizens. I find it more than disingenuous that the State of North Carolina does not do more regarding mobile source emissions and increased separation of people from these emissions. The record indicates that the majority of transportation funding goes to “new build” road construction. Giving citizens more transportation options will relieve congestion, even in areas that see population growth, not continuing to build new roadways. Increasingly, mobile sources have a significant role in the precursor and criteria pollutants (NAAQS) generated within a State, as well as, Mobile Source Air Toxics.

9 [This proposed federal action does not appear to provide protection to children from environmental health and safety risks under Executive order 13045. As Dr. Samet stated; “While we continue to obtain further evidence, prudent, “no-regret” strategies to reduce exposures merit consideration.” The NCTA & FHWA needs to shift the alignment of the preferred alternative away from homes and other sensitive receptors to minimize elevated air pollution levels resulting in adverse health effects.

10 [EPA’s vehicle and fuel regulations, coupled with fleet turnover is applauded and needed; however, over time, the substantial reductions that will cause region-wide air pollution levels to be significantly lower than today remains to be seen. No Federal or State laws mandate vehicle turnover. The fuel regulations could be eliminated or reduced in the future.

OZONE & Health Effects

North Carolina Department of Environment & Natural Resources Division of Air Quality SIP narrative for the Charlotte Metro area states: “Ozone, a strong chemical oxidant, adversely impacts human health through effects on respiratory function and can also damage forests and crops. Ozone is not emitted directly by the utilities ,industrial sources or motor vehicles but

instead, is formed in the lower atmosphere, the troposphere, by a complex series of chemical reactions involving nitrogen oxides (NOx), resulting from the utilities, combustion processes and motor vehicles, and reactive volatile organic compounds (VOCs). VOCs include many industrial solvents, such as toluene, xylene and hexane as well as the various hydrocarbons (HC) that are evaporated from the gasoline used by motor vehicles or emitted through the tailpipe following combustion. Additionally, VOCs are emitted by natural sources such as trees and crops. Ozone formation is promoted by strong sunlight, warm temperatures and light winds. High concentrations tend to be a problem in the eastern United States only during the hot summer months when these conditions frequently occur. Therefore, the U. S. Environmental Protection Agency (USEPA) mandates seasonal monitoring of ambient ozone concentrations in North Carolina from April 1 through October 31 (40 CFR 58 App. D, 2.5).

MODELS USED

In order to accurately model the mobile source emissions in the Metrolina non-attainment area, the newest version of the MOBILE model, MOBILE6.2, was used. Key inputs for the MOBILE model include information on the age of vehicles on the roads, the average speed on the roads, the mix of vehicles on the roads, any control technologies in place in an area to reduce emissions for motor vehicles (e.g., emissions inspection programs), and temperature. The MOBILE model takes into consideration rules that are in effect that impact the emissions from this source sector. For highway mobile sources, the actual and typical year emissions were the same and the MOBILE model was run using input data reflective of 2002. The same model then is run for the future year emissions inventory using input data reflective of 2009. The 2002 and 2009 vehicle miles traveled (VMT), speeds, vehicle age and vehicle mix data was obtained from the NC DOT. For urban areas in NC that run travel demand models (TDMs), VMT and speed data from TDMs were used. The Metrolina area is one of the areas that run a TDM, and the TDM domain covers the entire nonattainment area” (http://daq.state.nc.us/planning/Metrolina_SIP_Narrative_0405200707.pdf).

According to the final technical air quality memorandum, the FHWA/NCTA had this to say about ozone formation in similar DEIS documents: “Since ozone takes several hours to form from hydrocarbons and nitrogen oxide, urban areas as a whole are regarded as sources of ozone precursors, not traffic on individual streets and highways.”

11 [I have to ask if the FHWA developed a pollution control technology preventing ozone formation along individual streets and highways, or is there a proposal to prevent automobiles and trucks on individual streets and highways? Is the FHWA just overly optimistic about EPA’s vehicle and fuel regulations?

The EPA had this to say: “When ambient temperatures and sunlight levels remain high for several days and the air is relatively stagnant, ozone and its precursors can build up and result in more ozone than typically would occur on a single high-temperature day. The highest levels of ozone are produced when both VOC and NOx emissions are present in significant quantities on clear summer days. Decreases in the height of the mixing layer (due to a stable atmosphere, etc.) will lead to increased pollutant concentrations at both local and regional scales” (EPA Control of Hazardous Air Pollutants from Mobile Sources Chapter 3 February 2007).

“A new research study published in the New England Journal of Medicine shows that the risk of dying from respiratory disease may be as much as 30 percent higher in metropolitan areas with high concentrations of ozone than it is in areas with low concentrations. The scientists who conducted the study – from the American Cancer Society, Health Canada, Brigham Young University, the University of California, Berkeley, New York University’s School of Medicine, and the University of Ottawa – analyzed data for approximately 450,000 people who participated in an American Cancer Society study between 1982 and 2000. During that period, 118,777 study

participants died. The researchers then linked cause of death to air pollution levels in 96 cities around the country using an advanced modeling program that also controls for individual risk factors such as age, whether the person smoked, body mass and diet, as well as any regional differences that might affect the outcome. The researchers then factored out the cardiovascular impact of fine particles, one of the components in smog, and thus were able to isolate the effects of ozone on respiratory health. “Many studies have shown that a high-ozone day leads to an increase in risk of acute health effects the next day...What this study says is that to protect the public’s health, we can’t just reduce the peaks, we must also reduce long-term cumulative exposure,” says Dr. George D. Thurston, professor in the Department of Environmental Medicine at New York University’s School of Medicine, a part of NYU Langone Medical Center.” “Ozone pollution likely translates into thousands of additional deaths every year across the USA,” says lead author Michael Jerrett. About 240,000 Americans a year die of respiratory illnesses.” (Jerrett et al “Long-Term Ozone Exposure and Mortality,” New England Journal of Medicine, Volume 360:1085-1095. March 12, 2009, number 11). <http://content.nejm.org/cgi/content/abstract/360/11/1085>

The EPA is reconsidering the March 2008 Ozone standard set at 0.075 parts per million (ppm) and asked the DC court of appeals to stall legal proceedings. The EPA will review the national air quality standards for ozone to determine whether the Bush administration’s rule “should be maintained, modified or otherwise reconsidered.” The current administration stated that they would use sound science and the rule of law, and follow the advice of scientific advisors in making their decisions. The Clean Air Scientific Advisory Commission had this to say in their April 7, 2008 letter to the EPA administrator:

“Nevertheless, the members of the CASAC Ozone Review Panel do not endorse the new primary ozone standard as being sufficiently protective of public health. The CASAC — as the Agency’s statutorily-established science advisory committee for advising you on the national ambient air quality standards — *unanimously recommended* decreasing the primary standard to within the range of 0.060–0.070 ppm. It is the Committee’s consensus scientific opinion that your decision to set the primary ozone standard above this range fails to satisfy the explicit stipulations of the Clean Air Act that you ensure an adequate margin of safety for all individuals, including sensitive populations.

As you are well aware, numerous medical organizations and public health groups have also expressed their support of these CASAC recommendations. We sincerely hope that, in light of these scientific judgments and the supporting scientific evidence, you or your successor will select a more health-protective primary ozone standard during the upcoming review cycle. The CASAC was also greatly disappointed that you failed to change the form of the secondary standard to make it different from the primary standard. As stated in the preamble to the Final Rule, even in the previous 1996 ozone review, “there was general agreement between the EPA staff, CASAC, and the Administrator, ... that a cumulative, seasonal form was more bio-logically relevant than the previous 1-hour and new 8-hour average forms (61 FR 65716)” for the secondary standard. Therefore, in both the previous review and in this review, the Agency staff and its advisors agreed that a change in the form of the secondary standard was scientifically well-justified.”

12 [Currently, the Charlotte Metropolitan area cannot meet the 1997 ozone standard at 0.085ppm. Mobile sources contribute a significant amount of pollution for the Charlotte Metro area, and the degree of control to this source, will determine if the (NAAQS) will be met. Will a new conformity determination be made using the official MOVES model prior to a record of decision?

Construction Air Quality

FHWA/NCTA had this to say in the final air quality technical memorandum: Provided local ordinances for open burning and dust are followed, significant air quality impacts due to construction of the proposed project are not anticipated. There would also be emissions related to construction equipment and vehicles. However, these impacts related to construction would be temporary. The proposed project would be constructed in phases, limiting the overall construction activity occurring at any one location.

I would recommend:

- 1. No on-site burning of demolition or construction waste and stringent dust suppression during all phases of construction. Maintain strict clearing limits and tree protection to prevent all incursions beyond the defined clearing limits.
- 2. NCTA designate a construction manager with specific quality assurance and oversight responsibility over the design build contractor and the design build contract include significant penalties, in addition to any State or local regulatory penalties, to deter violations.
- 3. No idling, staging, or refueling of mobile construction equipment within close proximity to homes or sensitive receptors should be allowed.
- 4. Confinement of contractor staging areas and haul routes to the permanent work limits.

Transportation Conformity

TITLE 42--THE PUBLIC HEALTH AND WELFARE CHAPTER 85--AIR POLLUTION PREVENTION AND CONTROL SUBCHAPTER 1--PROGRAMS AND ACTIVITIES

Part D--Plan Requirements for Nonattainment Areas subpart 1--nonattainment areas in general Sec. 7506. Limitations on certain Federal assistance

- (a), (b) Repealed. Pub. L. 101-549, title I, Sec. 110(4), Nov. 15, 1990, 104 Stat. 2470
- (c) Activities not conforming to approved or promulgated plans

(1) No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an implementation plan after it has been approved or promulgated under section 7410 of this title. No metropolitan planning organization designated under section 134 of title 23, shall give its approval to any project, program, or plan which does not conform to an implementation plan approved or promulgated under section 7410 of this title. The assurance of conformity to such an implementation plan shall be an affirmative responsibility of the head of such department, agency, or instrumentality. Conformity to an implementation plan means--

- (A) conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and
- (B) that such activities will not-
 - (i) cause or contribute to any new violation of any standard in any area;
 - (ii) increase the frequency or severity of any existing violation of any standard in any area; or
 - (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

(2)(A) no transportation plan or transportation improvement program may be adopted by a metropolitan planning organization designated under title 23 or chapter 53 of title 49, or be found to be in conformity by a metropolitan planning organization until a final determination

has been made that emissions expected from implementation of such plans and programs are consistent with estimates of emissions from motor vehicles and necessary emissions reductions contained in the applicable implementation plan, and that the plan or program will conform to the requirements of paragraph (1)(B);

I would like to ask that before a Record of Decision, will a project-level and conformity determination be made for the anticipated (annual) particulate matter and ozone standards? In drafting Section 176(c) of the Clean Air Act Amendments of 1990, Congress clearly sought to ensure that the federal government be subject to and comply with the same federal, state, interstate and local requirements, administrative authority and sanctions with respect to the control and abatement of air pollution, in the same manner and to the same extent, as any nongovernmental entity. Federal agencies are to be afforded no special privileges and may do no less than nongovernmental entities.

Mobile Source Air Toxics (MSAT)

The Air quality technical memorandum for the Gaston East- West Connector had this to say: The VMT in Gaston County estimated for each of the DSAs is slightly higher than that for the No Build Alternative (about 12 percent increase in Gaston County and <1 percent increase in the Metrolina region as a whole) because the DSAs would provide a new facility over the Catawba River and South Fork Catawba River where there are few to no crossings. This increase in VMT means MSATs under the DSAs would probably be slightly higher than the No-Build Alternative in the study area. In addition, because the estimated VMT under each of the DSAs are nearly the same, varying by less than 1 percent, it is expected that there would be no appreciable difference in overall MSAT emissions among the various DSAs. Because of the specific characteristics of the DSAs (i.e. new connector roadway), there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections that would be built where there are few major roadways and little industry, such as the area west of US 321 and south of Linwood Road, and the area west of Daniel Stowe Botanical Garden under any of the DSAs. However, even if these increases do occur, they too will be substantially reduced in the future as the implementation of EPA's vehicle and fuel regulations improves the region's fleet of motor vehicles.

Why is the FHWA still using the 2006 Interim guidance for MSAT's? Why does the FHWA use 150,000 Annual Average Daily Traffic count to conduct a quantitative MSAT analysis? What criterion was used to come up with that number? Is the FHWA or NCTA going to identify all sensitive receptors?

If known human health hazard prevention were a priority, the same unknowns the FHWA points out quite nicely in their prepared Environmental Impact Statements as to why they cannot do a comprehensive quantitative MSATs analysis at the project level in order to quantify the cancer and non-cancer risks should be enough reason to avoid schools and residential areas altogether.

The 6 priority MSATs out of a total of 177 hazardous air pollutants currently listed under CAA section 112(b), as well as diesel particulate matter are: Acetaldehyde, Acrolein, Benzene, 1,3-Butadiene, Diesel Particulate Matter & Diesel Exhaust Organic Gases, and Formaldehyde. I understand that there will be a proposed 30% reduction in MSATs from 40 CFR parts 59, 80, 85, and 86 due to cleaner fuels and vehicles by 2030. While this action by the EPA is applauded, the results will not be immediately realized in 2015 due to the expected delay for a complete fuel program phase-in and the immediate purchase of all new clean vehicles is unlikely, which means

most of the projected reductions will probably occur closer to 2030. Let's assume the reductions of gasoline (on-road mobile sources) will be met; there will still be 558,666 tons in 2015, and 507,782 tons in 2020 and 505,074 tons of MSATs in 2030 emitted to the atmosphere in the US on a yearly basis according to the EPA. (Control of Hazardous Air Pollutants from Mobile Sources Chapter EPA February 2007). This equates to over one billion pounds of on-road MSATs per year still emitted to the atmosphere after the estimated reductions. The EPA should set a minimum standard for at least the 6 priority MSATs, and they should be included in the transportation conformity process under Title 40 CFR part 51 and 93. Other than pointing out the accomplishments and deficiencies of the EPA in dealing with this complex problem, what actions, if any, are the FHWA and the NCTA going to take to reduce the exposure to citizens who live within close proximity to the proposed freeways? Will the NCTA purchase a 2300 to 3000 foot total right of way? Will the FHWA, and by extension the NCTA, just continue to use 40 CFR 1502.22 a&b to opt out of doing a proper comprehensive risk assessment that will inform citizens of the risk and allow for sound and prudent decisions whether to move forward with a proposed highway alternative or not?

16

Comparing the impact of MSATs against different options within the study area is analogous to not seeing the forest for the trees, and this approach does not give an accurate representation to the impact on sensitive receptors at the project level. After you construct the new freeway, then you will have two major roadways with cumulative pollutants, and the new highway will be close to where large numbers of people reside. The comparison needs to be with the background ambient concentrations from actual monitors along the entire length of the proposed freeway.

17

The Agency for Toxic Substances and Disease Registry had this to say for Benzene: "EPA, IARC, and the Department of Health and Human Services have concluded that benzene is a human carcinogen. The Department of Health and Human Services (NTP 2005) determined that benzene is a known carcinogen based on human evidence showing a causal relationship between exposure to benzene and cancer. IARC (1987, 2004, 2007) classified benzene in Group 1 (carcinogenic to humans) based on sufficient evidence in both humans and animals. EPA (IRIS 2007) classified benzene in Category A (known human carcinogen) based on convincing evidence in humans supported by evidence from animal studies. Under EPA's most recent guidelines for carcinogen risk assessment, benzene is characterized as a known human carcinogen for all routes of exposure based on convincing human evidence as well as supporting evidence from animal studies (IRIS 2007). Based on the Rinsky et al. (1981, 1987) human leukemia data, EPA derived a range of inhalation unit risk values of 2.2×10^{-6} – 7.8×10^{-6} ($\mu \text{g}/\text{m}^3$)⁻¹ for benzene (IRIS 2007). For risks ranging from 1×10^{-4} to 1×10^{-7} , the corresponding air concentrations for lifetime exposure range from 13.0–45.0 $\mu \text{g}/\text{m}^3$ (4–14 ppb) to 0.013–0.045 $\mu \text{g}/\text{m}^3$ (0.004–0.014 ppb), respectively.

Inhalation exposure to benzene levels in excess of regulated workplace limits (8-hour TWA of 1 ppm) for several months to several years can result in deficits in the relative numbers of circulating blood cells, which may be severe enough to be considered clinical pancytopenia. Continued exposure to benzene can also result in aplastic anemia or leukemia (Aksoy et al. 1974; EPA 1995; Hayes et al. 1997; IARC 1982, 1987; IRIS 2007; Rinsky et al. 1987, 2002; Yin et al. 1987c, 1996a, 1996b). Pancytopenia is the reduction in the number of all three major types of blood cells: erythrocytes (red blood cells), thrombocytes (platelets), and leukocytes (white blood cells). In adults, all three major types of blood cells are produced in the red bone marrow of the vertebrae, sternum, ribs, and pelvis. The red bone marrow contains immature cells, known as multipotent myeloid stem cells, that later differentiate into the various mature blood cells. Pancytopenia results from a reduction in the ability of the red bone marrow to produce adequate numbers of these mature blood cells. Aplastic anemia is a more severe effect of benzene and

occurs when the bone marrow ceases to function (<http://www.atsdr.cdc.gov/toxprofiles/tp3-c3.pdf>).

Benzene is rapidly absorbed through the lungs; approximately 50% of the benzene in air is absorbed.

Inhalation is the primary route of exposure for general and occupational populations. Health effects are determined by the dose (how much), the duration (how long), and the route of exposure. The primary target organs for acute exposure are the hematopoietic system, nervous system, and immune system.

The primary target for adverse systemic effects of benzene following low-level chronic exposure is the hematological system. The concentration of benzene in air samples from metropolitan areas was 0.58 ppb, but this does not address near roadways concentrations. A Minimum Risk Level of 0.003 ppm has been derived for chronic-duration inhalation exposure (≥ 1 year). It is not known if children are more susceptible to benzene poisoning than adults" (<http://www.atsdr.cdc.gov/toxguides/toxguide-3.pdf>).

New Understandings of Benzene Metabolism and Implications for Risk Assessments

"Background: Benzene is carcinogenic, but *must be metabolized to exert its toxicity*. Although benzene is the simplest aromatic compound, its metabolism is surprisingly complex. With funding in part from the Superfund Basic Research Program, Drs. Stephen Rappaport (University of North Carolina, Chapel Hill SBRP) and Martyn Smith (University of California, Berkeley SBRP) have worked together on investigations of various aspects of human metabolism of benzene. They have developed and applied biomarkers of exposure, namely, benzene in breath and urine, benzene metabolites in urine, and protein adducts of benzene metabolites in blood; and investigated biomarkers of effect, in the form of changes to gene expression and DNA. They measured many of these biomarkers in over 1000 benzene-exposed workers and controls in numerous studies, as part of collaborations with Drs. Lan and Rothman at the National Cancer Institute (NCI) and Dr. Qu at New York University. Among their many findings, these collaborators have shown that:

- At levels below 1 ppm, benzene causes a lowering of circulating blood cells
- Benzene is toxic to progenitor cells (the unspecialized "parent" cells from which all other blood cells develop) and particularly to early progenitor cells
- Biomarkers of exposure to benzene increase with benzene air concentrations, but the exposure-biomarker relationships are non-linear, with biomarker levels decreasing per ppm of benzene exposure at levels above 1 ppm

The collaboration continues, and the research groups led by Drs. Rappaport and Smith recently published findings of two studies designed to investigate dose-related metabolism and interindividual variations in humans exposed to benzene.

Advances: In earlier work, the researchers documented unexpected patterns in benzene metabolite levels over a wide range of exposures to benzene, particularly at air concentrations below 1 ppm. These findings led them to hypothesize that an unidentified metabolic pathway was mainly responsible for benzene metabolism at ambient levels. If this hypothesis is correct, then persons exposed to air concentrations below 1 ppm efficiently metabolize benzene and receive *greater doses of toxic metabolites* per ppm of exposure than persons exposed above 1 ppm. To test this hypothesis, the researchers considered two models of benzene metabolism, namely, (1) incorporating a single enzyme; and (2) involving two enzymes, one of which was primarily active at low air concentrations and the other primarily active at high air concentrations. After

combining exposure and urinary metabolite data from two earlier studies of nonsmoking women, they statistically tested whether the data were better fit by the one-enzyme model or the two-enzyme model. They found substantial statistical evidence favoring the model with two metabolic enzymes. Because concentrations of benzene in ambient air tend to be less than 0.01 ppm, these results suggest that the previously unrecognized enzyme active at low concentrations is responsible for most metabolism of this airborne carcinogen in the general population. Applying the two-enzyme model, it is reasonable to conclude that *current risk assessments would likely underestimate leukemia risks at ambient air concentrations of benzene by a factor of about three for nonsmoking women.*

In a separate study, the researchers searched for genetic variations that might be related to differences in human susceptibility to benzene exposure. They examined 411 genes, looking for associations between DNA sequence changes (single-nucleotide polymorphisms, or SNPs) and white blood cell counts in 250 exposed and 140 control individuals. Their analysis of nearly 1400 SNPs identified significant associations with five genes that are related to DNA repair and genomic maintenance. *In vitro* functional studies provided evidence that these genes, or related gene products, are key components of susceptibility to benzene-induced hematotoxicity in humans.

Significance: Benzene is a truly ubiquitous environmental contaminant. It is found at over half of the EPA's National Priorities List sites, and we are routinely exposed to benzene via second-hand cigarette smoke, automobile emissions, and gasoline vapors.

Taken together, the results of research led by Drs. Rappaport and Smith suggest that the leukemia risk associated with exposures to environmentally relevant levels of benzene could be substantially greater than currently assumed for the general population, and even higher for subgroups with specific genetic susceptibilities. These findings introduce new complexities into the already significant challenges faced by environmental and public health practitioners charged with making decisions regarding regulatory actions and potential cleanup costs, estimated in the billions of dollars."

To learn more about this project, please refer to the following sources:

Qing L., L. Zhang, M. Shen, W.J. Jo, R. Vermeulen, G. Li, C. Vulpe, S. Lim, X. Ren, S.M. Rappaport, S.I. Berndt, M. Yeager, J. Yuenger, R.B. Hayes, M. Linet, S. Yin, S. Chanock, M.T. Smith, and N. Rothman. 2009. Large-scale evaluation of candidate genes identifies associations between DNA repair and genomic maintenance and development of benzene hematotoxicity. *Carcinogenesis* ; 30(1) :50-58. Available online: DOI: 10.1093/carcin/bgn249

Rappaport, S.M., S. Kim, Q. Lan, R. Vermeulen, S. Waidyanatha, L. Zhang, G. Li, S. Yin, R.B. Hayes, N. Rothman, and M.T. Smith. In Press (Online 18 February 18, 2009). Evidence that Humans Metabolize Benzene via Two Pathways. *Environmental Health Perspectives* DOI:10.1289/ehp.0800510 Available online: <http://www.ehponline.org/docs/2009/0800510/abstract.html>

Ren X, Lim S, Smith MT, Zhang L. 2009. Werner syndrome protein, WRN, protects cells from DNA damage induced by the benzene metabolite hydroquinone. *Toxicol Sci* ; 107(2) :367-75. Available online: <http://www.ncbi.nlm.nih.gov/pubmed/19064679>

Factors influencing the spatial extent of mobile source air pollution impacts: a meta-analysis

The emission rate can influence the spatial extent for absolute comparisons, with the spatial extent increasing from 90 m to 430 m when the emission rate increases from 2.5 to 10 $\mu\text{g}/(\text{m}\cdot\text{s})$. Relative spatial extent definitions are unaffected by emission rates, at least with zero background concentrations. As the background concentration increases, the spatial extent based on a relative comparison increases correspondingly (Table 1). In an extreme case, when the background concentration is 1 $\mu\text{g}/\text{m}^3$, the concentration never drops below 50% of the reference. Changing meteorology also clearly influences the spatial extent, with more unstable conditions (e.g., class B, D and F are moderately unstable, neutral and moderately stable respectively) resulting in lower spatial extents, although with an important modifying effect of wind speed (Table 1).

Basing the spatial extent on cancer risk thresholds rather than concentrations significantly influences the spatial extent (Table 1). If we assume the pollutant under study is diesel PM, according to California EPA [47], the cancer risk potency factor is 300 per million per $\mu\text{g}/\text{m}^3$ over 70 years lifetime. The lifetime cancer risk would range from 166 to 13 per million from the edge of the mixing zone to 500 m downwind under the base case. The spatial extent corresponding to a threshold of 20 per million in cancer risk is about 300 m from the source, and the spatial extent for a threshold of 1 per million would be well beyond our modeling region. Of note, this definition corresponds directly with absolute concentration definitions, although with lower concentrations allowed (i.e., a 1 per million risk threshold corresponds with a 0.003 $\mu\text{g}/\text{m}^3$ concentration threshold).

In spite of the above intricacies, the literature allows us to develop some first-order rules of thumb for policy makers and other stakeholders. Omitting the health risk threshold perspective or circumstances with high background concentrations and no significant gradients, the spatial extent of impact for mobile sources reviewed in this study is generally on the order of 100–400 m for elemental carbon or particulate matter mass concentration (excluding background concentration), 200–500 m for NO₂, and 100–300 m for ultrafine particle count. From a policy perspective, this might indicate that a 500 meter buffer around a roadway would be appropriately protective under most circumstances. However, policy makers may be concerned about risk thresholds, which could imply quite large spatial extents of impact. While these distances could be implausibly large for offsets/buffers, this alternative framing emphasizes that there are circumstances in which exposure increments that are difficult to detect and well below maximum impacts may still be relevant for public health, and studies with an individual health risk framing should not restrict their focus to a 500 meter radius.

Conclusion: First, to allow for meaningful comparisons across studies, it is important to state the definition of spatial extent explicitly, including the comparison method, threshold values, and whether background concentration is included. Second, the observation that the spatial extent is generally within a few hundred meters for highway or city roads demonstrates the need for high resolution modeling near the source. Finally, our findings emphasize that policymakers should be able to develop reasonable estimates of the "zone of influence" of mobile sources, provided that they can clarify the pollutant of concern, the general site characteristics, and the underlying definition of spatial extent that they wish to utilize (Ying Zhou*and Jonathan I Levy. Factors influencing the spatial extent of mobile source air pollution impacts: a meta-analysis *BMC Public Health* 2007, 7:89 doi: 10.1186/1471-2458-7-89.)

According to the National Cancer Institute, US National Institutes of Health, the estimated cases for 2008 are 44,270 new cases of leukemia resulting in 21,710 deaths. 78% of children get Acute Lymphocytic Leukemia (ALL). According to the Leukemia & Lymphoma Society; "Leukemia, lymphoma and myeloma will cause the deaths of an estimated 52,910 people in the United States in 2008. Every ten minutes, another child or adult is expected to die from leukemia, lymphoma or myeloma. This statistic represents nearly 145 people each day, or six people every hour. Leukemia causes more deaths than any other cancer among children and young adults under age 20." The EPA states: "Several studies have measured elevated concentrations of pollutants emitted directly by motor vehicles near roadways as compared to overall urban background levels. Pollutants measured with elevated concentrations include benzene, polycyclic aromatic hydrocarbons, carbon monoxide, nitrogen dioxide, black carbon, and coarse, fine, and ultra fine particulate matter. Meteorology, traffic type and volume, and topography are factors that can alter this distance. Motor vehicle emissions generally occur within the breathing zone, and near- road populations can be exposed to "fresh" primary emissions as well as combustion pollutants "aged" in the atmosphere. The EPA found that elevated exposures can occur due to potentially increased concentrations indoors and increased exposures during outdoor activities from many sources, including vehicle exhaust. A review of the literature determined that approximately 100% of gaseous compounds, such as benzene can penetrate indoors. Studies suggest that ambient temperature variation can also affect particle number gradients near roads substantially. Wind direction also affects traffic-related air pollution mass concentrations inside and outside schools and homes near motorways. Diurnal variations in mixing layer height will also influence both near-road and regional air pollutant concentrations. Decreases in the height of the mixing layer (due to morning inversions, stable atmosphere, etc.) will lead to increased pollutant concentrations at both local and regional scales. Children may represent a subpopulation at increased risk from benzene exposure, (as well as particulate matter, Gauderman et al.) due to factors that could increase their susceptibility. Children have a higher unit body weight exposure because of their heightened activity patterns which can increase their exposures, as well as different ventilation tidal volumes, and frequencies, factors that influence uptake. This could entail a greater risk of leukemia and other toxic effects to children if they are exposed to benzene at similar levels as adults" (Control of Hazardous Air Pollutants from Mobile Sources Chapter EPA February 2007).

18 [Were any modeling assessments for NAAQS and MSAT's conducted to include the future lanes that will be added (and vehicles) in the proposed 70 foot grass median? Additional lanes in the 70+ foot median, at a latter date, would contribute to significantly higher MSAT exposure levels than would be stated in the DEIS, FEIS and Record of Decision? What is the purpose of a 70 or 74 foot median? Can the NCTA explain why the proposed median width for a freeway is being designed the same for an interstate? The impacts to businesses (and costs for right of way) could be reduced with a 25 or 35 foot grass median. Cables could provide a sufficient safety barrier, in the future; these will be added at a later date when additional lanes are added. Access roads for businesses should be sufficient. This statute is paramount to a mandate of building a roadway in a new location due to a larger right of way, resulting in self-imposed business impacts. The NCTA & FHWA needs to shift the alignment of the preferred alternative away from homes and other sensitive receptors to minimize elevated air pollution levels resulting in adverse health effects.

19 [

The EPA Motor Vehicle Emission Simulator (MOVES) model will be released in 2009, and it covers a broad range of pollutants. The (MOVES) model is also effective at determining pollutants at the project level. The official MOVES model is replacing the EPA mobile 6.2 model at the end of 2009. (<http://www.epa.gov/otaq/models/moves/index.htm>).

20 [The MOVES, Mobile 6.2, HAPEM, and AEROMOD models in conjunction with the land use regression models, are effective dispersion tools, to name a few, that could estimate the changes in time-weighted exposures associated with proximity to roadways for individual pollutants at the project level. Individual monitors, along with actual monitors strategically placed can be used for specific exposure routes, duration and dose. Will the FHWA use these models, along with monitors to conduct a quantitative MSAT analysis/study?

10 Re- [EPA's vehicle and fuel regulations, coupled with fleet turnover is applauded and needed; however, over time, the substantial reductions that will cause region-wide air pollution levels to be significantly lower than today remains to be seen. No Federal or State laws mandate vehicle turnover. The fuel regulations could be eliminated or reduced in the future.

peat

Sincerely,

Ed Eason

cc: Governor Beverly Purdue

Appendix B3 – Interest Group Comments

Table B3-10: Ed Eason

Document: i010 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Land Use and Transportation Planning	Why are the citizens' of Charlotte & Raleigh metro areas required to pay an additional "toll/tax" to fund their road projects when tax dollars will likely fund the Shelby, Winston-Salem, and the Fayetteville bypasses? The selection of projects that the NCTA is currently pursuing does not specify that an entire corridor be tolled, only in select areas. To only choose a few projects within a corridor is arbitrary and capricious.	<p>In accordance with State law (GS 136-89.183 (a)(2)), the NC Turnpike Authority is authorized "to study, plan, develop, and undertake preliminary design work on up to nine Turnpike Projects.....One of the Turnpike Projects shall be located in whole or in part in a county with a population equal to or greater than 650,000 person, according to the latest decennial census, and one Turnpike Project shall be located in a county or counties that each have a population of fewer than 650,000 person, according to the latest decennial census. One of the Turnpike Projects shall be a bridge of more than two miles in length going from the mainland to a peninsula bordering the State of Virginia."</p> <p>The NCTA currently is studying five projects. As stated on the NCTA Web site (www.ncturnpike.org), projects must meet certain criteria to be selected for consideration as a toll road. The roadway must have full control of access, it must have a free alternate route, it must have a high probability of being able to start construction within a reasonable time frame, it should have demonstrated local support, and it should be deemed financially feasible. Special consideration is given to projects that would play a significant role in the statewide or regional highway system or serve major economic generators.</p>
2	Purpose and Need for Action	The traffic numbers hardly justify the money and resources to build this facility, not to mention, the devastating effect it will have to the physical and natural environments.	The selection of the Preferred Alternative was based on a balance of cost and design considerations, impacts to the human and natural environments, and input received from agencies and the public. The costs were fully disclosed in the Draft EIS in Section 2.4.5, and impacts were fully disclosed in Chapters 3 through 8. Based on the preliminary financing plan, including preliminary traffic and revenue studies available on the NCTA Web site, the project has been deemed financially feasible.
3	Air Quality	The NCTA & FHWA's arguments that the new build DSA "Alternative 9" has no direct or indirect air quality impacts to Sadler, Forest Heights, and WA Bess Elementary and Forestview High School(s) and residential areas are spurious.	<p>An <i>Air Quality Technical Memorandum for the Gaston East-West Connector</i> (September 2008), incorporated by reference into the Draft EIS and summarized in Section 4.2, was prepared for the project in accordance with FHWA guidance. The qualitative analysis of mobile source air toxics (MSATs) is included as Appendix H of the Draft EIS. As stated on page H-8 of Appendix H, there are there are four public schools located within or near the boundaries of the DSA corridors: Sadler Elementary, Forest Heights Elementary, Forestview High School, and WA Bess Elementary. Under all DSAs in the design year, it is expected that there would be higher MSAT emissions in the immediate project area, relative to the No-Build Alternative, due to increased vehicles miles traveled. In comparing the DSAs, MSAT levels could be slightly higher in some locations than others,</p>

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Table B3-10: Ed Eason

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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			<p>but current tools and science are not adequate to quantify them or the risks to human health. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.</p> <p>The FHWA's MSAT guidance was updated on September 30, 2009. This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 and Appendix D of the Final EIS. As stated in the updated guidance (page 5), "air toxics analysis is an emerging field and current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that would result from a transportation project in a way that would be useful to decision-makers." The updated guidance does not change the conclusions and results regarding MSATs related to the proposed project that are reported in the Draft EIS.</p>
4	Air Quality	Although lengthy, the final technical air quality memorandum appears to primarily focus on enough information necessary to cross any regulatory hurdle it may encounter, but it lacks substance. The FHWA Interim Guidance on MSAT Research Data is not current, as the latest cited research is in 2005 (FHWA Interim Guidance Appendix C, February 2006).	An <i>Air Quality Technical Memorandum for the Gaston East-West Connector</i> (September 2008), incorporated by reference into the Draft EIS and summarized in Section 4.2, was prepared for the project in accordance with FHWA guidance. The FHWA's MSAT guidance was updated on September 30, 2009. This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 and Appendix D of the Final EIS. The updated guidance does not change the conclusions and results regarding MSATs related to the proposed project that are reported in the Draft EIS.
5	Air Quality	Based on what is contained in the Draft Environmental Impact Statement, I would say that the FHWA/NCTA is not capable of or is unwilling to conduct a comprehensive evaluation of any health impacts at all.	The mobile source air toxics (MSAT) qualitative analysis included in Appendix H of the Draft EIS was conducted in accordance with the Federal Highway Administration <i>Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents</i> (February 3, 2006). This guidance has been updated in the <i>Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents</i> (September 30, 2009). This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 and Appendix D of the Final EIS. As stated in the updated guidance (page 5), "air toxics analysis is an emerging field and current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that would result from a transportation project in a way that would be useful to decision-makers."

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Table B3-10: Ed Eason

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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
6	Air Quality	Can the FHWA please explain why they view EPA's vehicle and fuel regulations with such certainty while they ignore all health impact studies as inconclusive to make decision where a highway should be located?	See response to Comment 5 in Ed Eason's letter (Document i010).
7	Air Quality	Before a Record of Decision, will a project-level and conformity determination be made for particulate matter? In drafting Section 176(c) of the Clean Air Act Amendments of 1990, Congress clearly sought to ensure that the federal government be subject to and comply with the same federal, state, interstate and local requirements, administrative authority and sanctions with respect to the control and abatement of air pollution, in the same manner and to the same extent, as any non-governmental entity. Federal agencies are to be afforded no special privileges and may do no less than non-governmental entities.	Gaston County and Mecklenburg County currently are in attainment for PM2.5, therefore a project-level and conformity determination is not required.
8	Air Quality	Recently, North Carolina was successful in an injunction against the Tennessee Valley Authority and successful in litigation against EPA regarding the Clean Air Interstate Rule. The TVA was required to install millions of dollars in pollution control equipment for a few facilities to prevent particulate matter from affecting the health of NC citizens. I find it more than disingenuous that the State of North Carolina does not do more regarding mobile source emissions and increased separation of people from these emissions. The record indicates that the majority of transportation funding goes to "new build" road construction. Giving citizens more transportation options will relieve congestion, even in areas that see population growth, not continuing to build new roadways.	Comment noted. Transportation options for urban areas are evaluated and prioritized in long range transportation plans (LRTPs). The LRTP for Gaston County is prepared by the Gaston Urban Area MPO. The LRTP for Mecklenburg County is prepared by the Mecklenburg-Union MPO. Both 2035 LRTPs include plans for pedestrians, bicycles, rail, public transportation, and air transportation, as well as streets and highways. Both 2035 LRTPs include the Gaston East-West Connector as a toll facility.
9	Air Quality	This proposed federal action does not appear to provide protection to children from environmental health and safety risks under Executive order 13045. As Dr. Samet stated; "While we continue to obtain further evidence, prudent, "no-regret" strategies to reduce exposures merit consideration." The NCTA & FHWA needs to shift the alignment of the preferred alternative away from homes and other sensitive receptors to minimize elevated air pollution levels resulting in adverse health effects.	Preliminary designs for all the detailed study alternatives minimized impacts to residences and other structures to the extent feasible. The Preferred Alternative, Detailed Study Alternative 9, was selected because it provided the best overall balance of impacts to human, natural, physical, and cultural resources, as documented in Section 2.2 of the Final EIS. Also, see response to Comment 5 in Ed Eason's letter (Document i010).
10	Air Quality	EPA's vehicle and fuel regulations, coupled with fleet turnover is applauded and needed; however, over time, the substantial reductions that will cause region-wide air pollution levels to be significantly lower than today remains to be seen. No Federal or State laws mandate vehicle turnover. The fuel regulations could be eliminated or reduced in the future.	Projections of pollutant reductions are based on the best currently available data and studies from USEPA and FHWA.
11	Air Quality	I have to ask if the FHWA developed a pollution control technology preventing ozone formation along individual streets and highways, or is there a proposal to prevent automobiles and trucks on individual streets and highways? Is the FHWA just overly optimistic about EPA's vehicle and fuel regulations?	There is no proposal by FHWA, NCTA, or NCDOT to limit or prohibit automobiles and trucks on any public street or highway in the proposed project area, or any technology available to prevent ozone formation along streets and highways.

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Table B3-10: Ed Eason

Document: i010 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
12	Air Quality	Will a new conformity determination be made using the official MOVES model prior to a record of decision?	EPA released its MOVES 2009 model in December 2009. This model is a major update to EPA's mobile source emission rate models. Regarding transportation conformity, USEPA has established a two-year grace period before MOVES2010 is required for new transportation conformity analyses outside of California." (Federal Register, March 2, 2010, Volume 75, No. 40, pg 9411).
13	Air Quality	I would recommend: 1. No on-site burning of demolition or construction waste and stringent dust suppression during all phases of construction. Maintain strict clearing limits and tree protection to prevent all incursions beyond the defined clearing limits. 2. NCTA designate a construction manager with specific quality assurance and oversight responsibility over the design build contractor and the design build contract include significant penalties, in addition to any State or local regulatory penalties, to deter violations. 3. No idling, staging, or refueling of mobile construction equipment within close proximity to homes or sensitive receptors should be allowed. 4. Confinement of contractor staging areas and haul routes to the permanent work limits.	<p>Open burning will not be allowed for this project.</p> <p>The Design Build Team will be required to take whatever measures are necessary to minimize soil erosion and siltation, water pollution, and air pollution caused by their operations. The Design Build Team will also be required to comply with the applicable regulations of all legally constituted authorities relating to pollution prevention and control. The Design Build Team will be required to stay fully informed of all such regulations that in any way affect the conduct of the work, and will be required to at all times observe and comply with all such regulations. In the event of conflict between such regulations and the requirements of the specifications, the more restrictive requirements will apply.</p> <p>The Design Build Team will be required to control dust throughout the life of the project within the project area and at all other areas affected by the construction of the project, including, but not specifically limited to, unpaved secondary roads, haul roads, access roads, disposal sites, borrow and material sources, and production sites. Dust control will not be considered effective where the amount of dust creates a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property.</p> <p>If available, the NCTA will commit to providing the Design Build Team any information that USEPA can offer specific to the following issues: 1) availability of low sulfur fuel for construction equipment and information on cost differential, 2) Information on the latest air pollution control devices on construction equipment and whether all equipment needs to be new or be retrofitted, 3) A suggested reasonable amount of time for equipment to idle versus the effect of equipment restarts, and 4) Examples of other forms of dust control that have been used successfully on large construction projects (e.g., foam).</p>
14	Air Quality	I would like to ask that before a Record of Decision, will a project-level and conformity determination be made for the anticipated (annual) particulate matter and ozone standards? In drafting Section 176(c) of the Clean Air Amendments of	Gaston County and Mecklenburg County currently are in attainment for PM2.5, therefore a project-level and conformity determination is not required.

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Table B3-10: Ed Eason

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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		1990, Congress clearly sought to ensure that the federal government be subject to and comply with the same federal, state, interstate and local requirements, administrative authority and sanctions with respect to the control and abatement of air pollution, in the same manner and to the same extent, as any nongovernmental entity. Federal agencies are to be afforded no special privileges and may do no less than nongovernmental entities.	For ozone, USDOT made a conformity determination on the MUMPO and GUAMPO 2035 LRTPs and TIPs on May 3, 2010. As discussed in Section 2.5.2.2 , the current refined preliminary design for the Preferred Alternative was not completely consistent with the project’s concept and scope included in the travel demand model used for the May 3, 2010 conformity determination. After the May 3, 2010 conformity determination made by the USDOT, the GUAMPO prepared an amendment to the <i>2035 LRTP</i> and <i>2009-2015 TIP</i> so that the project design concept and scope included in the LRTP and TIP is consistent with the Preferred Alternative. GUAMPO made a conformity determination on the amended <i>2035 LRTP</i> and <i>2009-2015 TIP</i> on August 24, 2010. USDOT issued a conformity determination on the amendments on October 5, 2010.
15	Air Quality	Why is the FHWA still using the 2006 Interim guidance for MSAT’s? Why does the FHWA use 150,000 Annual Average Daily Traffic count to conduct a quantitative MSAT analysis? What criterion was used to come up with that number? Is the FHWA or NCTA going to identify all the sensitive receptors? If known human health hazard prevention were a priority, the same unknowns the FHWA points out quite nicely in the prepared Environmental Impact Statements as to why they cannot do a comprehensive quantitative MSATs analysis at the project level in order to quantify the cancer and non-cancer risks should be enough reason to avoid schools and residential areas altogether.	The 2006 guidance was updated on September 30, 2009. The updated guidance is included in the discussion of MSATs in Section 2.5.2.2 and Appendix D of the Final EIS. The FHWA will continue to revise and update this guidance as the science on air toxic analysis continues to evolve. The range of 140,000-150,000 AAT was selected as a criterion for considering a quantitative MSAT analysis because through use of USEPA’s MOBILE 6.2 emissions model, FHWA staff determined that this range of AADT would be roughly equivalent to the Clean Air Act definition of a major hazardous air pollutant (HAP) source, i.e., 25 tons/year for all HAPs or 10 tons/year for any single HAP.
16	Air Quality	The EPA should set a minimum standard for at least the 6 priority MSATs, and they should be included in the transportation conformity process under Title 40 CFR part 51 and 93. Other than pointing out the accomplishments and deficiencies of the EPA in dealing with this complex problem, what actions, if any, are the FHWA and the NCTA going to take to reduce the exposure to citizens who live within close proximity to the proposed freeways? Will the NCTA purchase a 2300 to 3000 foot total right of way? Will the FHWA, and by extension the NCTA, just continue to use 40 CFR 1502.22 a&b to opt out of doing a proper comprehensive risk assessment that will inform citizens of the risk and allow for sound and prudent decisions whether to move forward with a proposed highway alternative or not?	As stated in Appendix B of the <i>Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documentation</i> (September 30, 2009), there is no obligation to identify and consider MSAT mitigation strategies as part of a qualitative analysis, although such strategies may be part of a project’s design. Since the proposed Gaston East-West Connector warranted a qualitative analysis, the NCTA is not proposing any mitigation at this time. However, NCTA will continue to work with USEPA to determine if mitigation strategies, such as those described in Appendix E of the Interim Guidance, would be feasible and reasonable to implement.
17	Air Quality	Comparing the impact of MSATs against different options within the study area is analogous to not seeing the forest for the trees, and this approach does not give an accurate representation to the impact on sensitive receptors at the project level. After you construct the new freeway, then you will have two major roadways with cumulative pollutants, and the new highway will be close to where large numbers of people reside. The comparison needs to be with the background ambient	See response to Comment 5 in Ed Eason’s letter (Document i010).

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Table B3-10: Ed Eason

Document: i010 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		concentrations from actual monitors along the entire length of the proposed freeway.	
18	Air Quality	Were any modeling assessments for NAAQS and MSAT's conducted to include the future lanes that will be added (and vehicles) in the proposed 70 foot grass median? Additional lanes in the 70+ foot median, at a later date, would contribute to significantly higher MSAT exposure levels than would be stated in the DEIS, FEIS and Record of Decision? What is the purpose of a 70 or 74 foot median? Can the NCTA explain why the proposed median width for a freeway is being designed the same for an interstate? The impacts to businesses (and costs for right of way) could be reduced with a 25 or 35 foot grass median. Cables could provide a sufficient safety barrier, in the future; these will be added at a later date when additional lanes are added. Access roads for businesses should be sufficient. This statute is paramount to a mandate of building a roadway in a new location due to a larger right of way, resulting in self-imposed business impacts.	As discussed in Section 2.4.5.1 of the Draft EIS and shown in Figure 2-3, the preliminary engineering designs for the Detailed Study Alternatives show a six-lane facility with a 46-foot wide grass median. Additional mainline lanes beyond six lanes are not expected to be needed. Section 2.3.1 of the Final EIS discusses changes to the typical section of the Preferred Alternative. Based on a review of year 2035 traffic projections (Toll Scenario) for the Preferred Alternative, two through lanes in each direction are needed, along with an additional auxiliary lane in each direction between the NC 273 (Southpoint Road) interchange and the I-485 interchange. With this configuration, the mainline is projected to operate at LOS D or better through 2035.
19	Air Quality	The NCTA and FHWA needs to shift the alignment of the preferred alternative away from homes and other sensitive receptors to minimize elevated air pollution levels resulting in adverse health effects.	See response to Comment 10 in Ed Eason's letter (Document i010).
20	Air Quality	The MOVES, Mobile 6.2, HAPEM, and AEROMOD models in conjunction with the land use regression models, are effective dispersion tools, to name a few, that could estimate the changes in time-weighted exposures associated with proximity to roadways for individual pollutants at the project level. Individual monitors, along with actual monitors strategically placed can be used for specific exposure routes, duration and dose. Will the FHWA use these models, along with monitors to conduct a quantitative MSAT analysis/study?	The projected design year 2035 AADT (highest value equals 69,400 vehicles per day) does not meet the criteria to place the project in the category of projects that require a quantitative MSAT analysis. See also response to Comment 16 in Ed Eason's letter (Document i010).

William W. Toole
714 Ann Street
Belmont, NC 28012

July 21, 2009

VIA Email (gaston@ncturnpike.org) and U.S. Mail

Ms. Jennifer Harris, PE
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

Re: Gaston East-West Connector
STIP # U-3321, Federal Aid Project # STP – 1213(6) (Project)
Citizen Comments upon Draft Environmental Impact Statement of April 24, 2009

Dear Ms. Harris:

I write to provide comments upon the Federal Highway Administration Draft Environmental Impact Statement of April 24, 2009 (DEIS) prepared by the Federal Highway Administration, the North Carolina Department of Transportation (NCDOT), and the North Carolina Turnpike Authority (Turnpike Authority) (collectively, Transportation Agencies) with regard to the Project.

1 The Project fails to meet the stated purposes of reducing congestion and substantially improving east-west connectivity. Therefore, the Project has no merit and must be rejected.

2 Because the Transportation Agencies have summarily rejected without meaningful analysis practicable alternatives (such as establishing High Occupancy Toll (HOT) lanes on I-85, improving existing transportation facilities, and transportation demand management, or mass transit), the DEIS is defective. The DEIS is similarly defective because it has not analyzed the indirect and cumulative effects deriving from US 321 as
3 the likely western terminus. Moreover, the expected adverse effects of uncontrolled suburban sprawl through agricultural lands that lack municipal water and sewer outweigh the marginal benefits of the Project. For these and additional reasons set out below, the DEIS must be re-written and resubmitted to the public for review and comment.

I. PROJECT FACTS.

The Project is a proposed \$1.2 billion six lane toll road with a design speed of 70 miles an hour plan (65 mph posted speed limit) that would run west from I-485 south of the

Charlotte-Douglas Airport across southern Gaston County. As conceived, the Project would cross US 321 south of Gastonia, then turn north to join I-85 west of Gastonia.

Traffic studies have determined that toll revenue is not sufficient to pay for the entire Project. The North Carolina legislature has committed \$35 million annually in state funds for the life of the Project to fill the funding gap in toll revenues. This gap funding is only sufficient to construct a single phase of the Project, from I-485 to US 321 south of Gastonia. Building the second phase of the Project would require the General Assembly to find and commit another \$20 million to \$25 million a year in gap funding, which experts say is highly unlikely in the current state budget crisis.¹ The North Carolina Turnpike Authority states “[t]he most likely western interim terminus is currently US 321”² The DEIS provides no evaluation reflecting Project termination at US 321.

When first conceived in the late 1990’s, the Project was intended to support the logistical needs of a planned intermodal facility at the Charlotte Douglas Airport, and to stimulate manufacturing and industrial development along the Project. Such jobs would have fit the skill set of the Gaston County employee base, 24 % of whom do not have a high school diploma or equivalent, and another 59 % of whom have no more than a high school diploma or GED.³

4 A combination of factors, including the structural economic change away from manufacturing and industrial activity, the price of land, and the failure to connect to I-85 means the Project will not provide the economic stimulus promoters had originally hoped. Project construction “is anticipated to attract more residential development” to Gaston County,⁴ and the current expectation is that the Project will stimulate the development of very expensive housing projects, high end retail, and office parks⁵ in

¹ “Hoyle not optimistic about Garden Parkway,” Gaston Gazette, p. 1A (April 4, 2009).

² Frequently Asked Questions, p. 1 (June 2009), prepared by the North Carolina Turnpike Authority. Found at <http://www.ncturnpike.org>

³ U.S. Census Bureau, 2005-07 Fact Sheet, Gaston County. Found at http://factfinder.census.gov/home/saff/main.html?_lang=en

⁴ *Indirect and Cumulative Effects Assessment, Gaston East-West Connector* (Louis Berger Group, March 31, 2009), p. 130.

⁵ A traffic scenario presented by the North Carolina Turnpike Authority at public meetings and located on its website shows roughly 90% of the traffic will be commuter. Local Officials Meeting, “Gaston East West Connector (Garden Parkway) Forecasted Daily Traffic Volumes and Truck Percentages” (slide 10) (June 22, 2009), found on the North Carolina Turnpike Authority website <http://www.ncturnpike.org>. Though the document is not found in the DEIS, the North Carolina Turnpike Authority maintains the information is part of the public record supporting the Project.

The *Indirect and Cumulative Effects Assessment* report which supports the DEIS concludes that the Project would only speed the pace of the existing residential and commercial growth patterns in the Gaston County area of the Project. *Indirect and Cumulative Effects Assessment, Gaston East-West Connector* (Louis Berger Group, March 31, 2009), pp. 125-130. The *Indirect and Cumulative Effects Assessment* states that

4 what is now largely agricultural and pasture land. Local economic development officials have warned that the Project poses the real risk of siphoning retail activity from established retail corridors along I-85 and the municipal downtowns if local leaders are not vigilant. As a practical matter, "Gaston County is likely to see sharp increases in growth with or without the construction of the proposed [P]roject."⁶

II. THE PROJECT FAILS TO MEET THE PROJECT PURPOSES OF PROVIDING A SUBSTANTIAL REDUCTION IN CONGESTION AND A SUBSTANTIAL IMPROVEMENT IN CONNECTIVITY.

The stated purpose of the Project is to (1) improve traffic flow and safe travel on I-85, US 29/74 and US 321 in the Project Study Area, and (2) improve east-west connectivity within Gaston County and between Gaston County and Mecklenburg County.⁷ To meet the purpose and need, an alternative "must provide more than a minor improvement. . . . Alternatives that provide only a minor improvement do not meet the purpose and need, and therefore are not reasonable alternatives."⁸

A. The Project actually increases congestion on I-85, US 29/74, and US 321, rather than providing the required substantial improvement, and therefore fails to meet the stated purpose.

A primary purpose of the Project is to improve traffic flow and safe travel on I-85, US 29/74 and US 321 in the Project Study Area.⁹ The Project fails to meet the stated purpose of decreasing congestion.

5 Table C-3 of the DEIS shows that traffic would operate at the same or worse level of service on US 29/74 if the Project is completed to I-85, compared to the No-Build scenario.¹⁰ With one exception, table C-2 shows no improvement to the level of service on I-85 if the Project is completed to I-85.¹¹ The levels of service on US 321 are reported to be similar for all scenarios.¹² The DEIS does not demonstrate the substantial

only in the area of Bessemer City might the Project stimulate development of light industry. *Id.*, at p. 126. Such development could only occur when and if the Project connects to I-85.

⁶ *Indirect and Cumulative Effects Assessment, Gaston East-West Connector* (Louis Berger Group, March 31, 2009), pp. 137.

⁷ DEIS, p. 1-3.

⁸ *Id.*

⁹ DEIS, p. 1-3. *See also* DEIS, p. 2-4 (one of purposes is to "[r]educe congested vehicle miles travelled and/or congesting vehicle hours traveled in Gaston County compared to the No-Build Alternative in 2030").

¹⁰ DEIS, App. C, pp. C-7 through C-8.

¹¹ DEIS, App. C, p. C-6.

¹² DEIS, App. C., p. C-9.

5 improvement to I-85, US 29/74, or US 321 levels of service that is required to meet the stated Project purpose.

The DEIS contains no evaluation at all of the effect of terminating the Project at US 321, which is the likely western terminus.¹³ A June 2, 2009 study prepared by the North Carolina Turnpike Authority compares various traffic scenarios at US 321, including that of terminating the Project there. The study shows the following daily traffic counts in the year 2030 and demonstrates that constructing the Project increases traffic on I-85 at US 321.¹⁴

I-85 Daily Traffic West of US 321			I-85 Daily Traffic East of US 321		
No Toll Road	Dead End into 321	Connected to I-85	No Toll Road	Dead End into 321	Connected to I-85
119,200	132,500	124,400	134,600	139,300	137,600

6 All the scenarios show I-85 operating over capacity. This analysis of the Project clearly shows congestion on I-85 does not improve as a result of constructing the Project.

7 Notwithstanding the data in Tables C-2 and C-3, and the June 2, 2009 analysis by the North Carolina Turnpike Authority, the DEIS states "[t]raffic operations would improve on I-85 and on segments of US 29-74 with the New Location Alternative (Toll or Non-Toll Scenario) compared to the No-Build Alternative."¹⁵ This statement is demonstrably wrong, yet it formed the basis for the decision to recommend a second screening of the Project at the expense of various other alternatives, including the No-Build alternative.¹⁶

8 Similarly, the June 2, 2009 study shows traffic on US 321 increasing if the Project is constructed, compared to the No Build scenario. At some sections, the increase over the No-Build scenario is as much as 87%, and the level of service demonstrably deteriorates in one section if the Project is constructed. This June 2 study demonstrates why it is necessary for the Transportation Agencies to evaluate the effects of terminating the Project at US 321 and provide an opportunity for full public evaluation prior to taking any final agency action.

¹³ Frequently Asked Questions, p. 1 (June 2009), prepared by the North Carolina Turnpike Authority.

¹⁴ Gaston East-West Connector (Garden Parkway) Preliminary Daily Traffic Volumes (June 2, 2009). The document was handed out at meetings by the North Carolina Turnpike Authority and may also be found on the North Carolina Turnpike Authority website <http://www.ncturnpike.org>. Though the document is not found in the DEIS, the North Carolina Turnpike Authority maintains the information is part of the public record supporting the Project.

¹⁵ DEIS, p. 2-21.

¹⁶ DEIS, p. 2-22.

9 Since the conceptual stage of the Project, relieving congestion on I-85 has been a primary purpose of the East-West connector. The 2030 Long Range Transportation Plan by the Gaston Urban Area MPO, for example, states that the purpose of the toll road is to “serve as a bypass to Interstate 85, US 29/74 and US 321” and a “reliever to I-85 and US 29/74.”¹⁷ The DEIS declares that the purpose of the toll road is “to improve traffic flow on the sections of I-85, US 29-74 and US 321” in the study area, and to “reduce congested vehicle miles travelled” compared to traffic if the Project is not built.¹⁸ The Updated Final Purpose and Need Statement is equally clear that relieving traffic congestion on I-85, US 29/74 and US 321 is a fundamental purpose of the Project.¹⁹ Despite the statement of purpose and need in the DEIS, numerous supporting documents, and widespread community expectations regarding the Project purpose, the North Carolina Turnpike Authority has stated publicly on numerous occasions that the purpose of the Project “is not to alleviate congestion on I-85.”²⁰ This failure to understand a basic Project purpose means the Transportation Agencies cannot have conducted a proper evaluation determining whether the Project meets the stated purpose.

The toll road does not meet the basic purpose of relieving traffic congestion on I-85, US 29/74, or US 321. Consequently, the Project has no merit.

B. The Project does not substantially improve connectivity within Gaston County or between Gaston and Mecklenburg counties.

10 A second stated purpose of the Project is to improve connectivity within Gaston County, and between Gaston County and Mecklenburg County. The DEIS demonstrates that such connectivity is marginal at best. In many cases, the estimated time savings described in the DEIS appear to be highly inflated.

The Transportation Agencies estimate that travel between downtown Gastonia and the Belmont Peninsula (South Point Road/Armstrong Road intersection) on this \$1.2 billion toll road will decrease 2 minutes in 2030.²¹ This savings is minimal, is not sufficient to warrant the disruption the Project will cause or its cost, and Gaston County residents are not likely to pay tolls for such minimal time savings.

¹⁷ 2030 Long Range Transportation Plan, Gaston Urban Area Metropolitan Planning Organization, p. 71 (May 24, 2005).

¹⁸ DEIS, p. 1-3.

¹⁹ *Final Updated Purpose and Need Statement*, p.5 (Oct. 15, 2008) (“Need to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the project study area”). See also *Final Purpose and Need Statement*, p. 4 (Aug. 5, 2002) (“Need to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the project study area”).

²⁰ See, e.g., “Study: Parkway won’t help I-85 traffic,” Belmont Banner News, p. 1 (July 1, 2009).

²¹ DEIS, App. C, Table C-4, p. C-11. See also Gaston East-West Connector Citizens Summary, Draft Environmental Impact Statement, p. 5, (April 2009).

10 If DEIS estimates are to be believed, in 2030 Belmont Peninsula residents will save 23 minutes travelling from the South Point Road/Armstrong Road intersection to the Charlotte Douglas Airport by taking the toll bridge. This time savings occurs in part because the No-Build alternative is estimated to take 57 minutes.²² Currently, MapQuest shows the trip taking 17 minutes.²³ For the proposed travel savings to be correct, traffic must become so congested in twenty years that the trip increases by 40 minutes, an increase of over two hundred percent. This simply is not credible, and estimates of other times savings appear to be equally inflated.

The Project provides no meaningful, credible improvement in east-west connectivity, and certainly is not worth the impacts it will cause to the environment and the community. For example, Google Maps shows that at the US 321 terminus there is no development at the US 321/Robinson Road interchange.²⁴ As such, it is not a travel destination and cannot meet the requirement that a NC DOT Strategic Highway Corridor connect to a “travel destination.”²⁵ The sole effect of the Project is to induce development in a part of the county that is currently rural, not provide connectivity between existing destinations. Opening south Gaston County for development is not a recognized Project purpose.

The DEIS concludes that the Project will produce “substantial time savings” for inter-county travel.²⁶ The facts show otherwise.

III. THE DEIS FAILS TO USE RELIABLE DATA, CONDUCT AN EMPIRICAL EVALUATION OF REASONABLE ALTERNATIVES, OR ADEQUATELY EVALUATE THE CUMULATIVE AND INDIRECT EFFECTS OF THE PROJECT.

11 The DEIS does not meet the minimum standards required of the Transportation Authorities. It depends upon a model that observed data shows to be inaccurate. The evaluation of the available alternatives is cursory and without empirical support. The DEIS conducts no analysis of the impacts deriving from US 321 as the likely western terminus of the Project. Nor does the DEIS adequately evaluate the Project impact upon the region’s serious non-attainment status for ozone and the fact that there is no conformity plan in place. For each of these and other reasons set out below, additional

²² DEIS, App. C, Table C-5, p. C-12.

²³ See Attachment 1. Ground truthed during morning rush hour on May 22, 2009, the trip actually takes 12 minutes.

²⁴ See also *Indirect and Cumulative Effects Assessment, Gaston East-West Connector* (Louis Berger Group, March 31, 2009), pp. 129 (interchange F located amongst developable land parcels; “The potential for residential development is moderate due to sewer pumping issues. . . . Construction of the [Project] may accelerate the rate in which residential development occurs. . . .”)

²⁵ *SHC Concept Development Report*, NCDOT (October 2005).

²⁶ DEIS, p. 2-22.

11 work must be conducted and the DEIS re-presented to the public for review and comment.

A. The traffic projections overstate the actual traffic, and therefore overstate forecasted congestion and need.

12 The DEIS describes traffic volumes for the base year 2006 as “existing,”²⁷ yet comparison of these figures to traffic volumes observed in 2007 by the NCDOT Traffic Survey Group²⁸ shows the 2006 figures to be inflated estimates. The DEIS appears to have consistently overestimated the “existing” traffic volume along each of the major roadways in the project area. This leads to inflated traffic congestion projections. The failure to accurately reconcile the 2006 estimates with the 2007 observed data further corrodes the credibility of the long-term model projections.

B. Reasonable alternatives exist which the Transportation Agencies have failed to evaluate in any objective way.

The DEIS cursorily reviews, then summarily concludes, that a number of alternatives, including High Occupancy Toll (HOT)/High Occupancy Vehicle (HOV) lanes on I-85, expanded mass transit, upgrading the existing road system, or some combination of these, fail to meet or exceed the defined purpose and need. Of course, the Transportation Agencies then fail to apply the same standard of success to the preferred alternative of Project construction.

13 For example, the Transportation Agencies summarily reject the Transportation Demand Alternative because “travel times would not be noticeably reduced” and it would not “noticeably improve” congestion on I-85, US 29/74 and US 321.²⁹ It does not appear the Transportation Agencies reviewed any empirical data. As shown above, the Project does not noticeably reduce travel times, and it actually increases congestion on target roads. The Transportation Agencies seem to have applied a more stringent standard to the Transportation Demand Alternative than to its review of the Project.

The Transportation Agencies concluded that Mass Transit Improvements on Existing Locations (consisting of bus or rail service) would not attract enough trips to noticeably reduce vehicle miles travelled or congestion.³⁰ The DEIS does not contain any study to support this conclusion. The community experience is that before the economic downturn, demand for the Gastonia Express bus to uptown Charlotte was so great in July 2008 that there was standing room only on each of the four buses for the 7,400 riders.

²⁷ DEIS, Tables 1-1, 1-2, 1-3, and 1-4, pp. 1-14 though 1-17.

²⁸ NCDOT Traffic Survey Group, AADT Traffic Volume Maps (2007 Spreadsheet) found at http://www.ncdot.org/doh/PRECONSTRUCT/pb/traffic_survey/

²⁹ DEIS, p. 2-7.

³⁰ DEIS, p.2-9.

13 The Transportation Agencies also reject the alternative because buses would travel on roadways operating at poor levels of service E or F.³¹ The DEIS fails to apply the same criteria and reject the Project, even though the Project does not improve level of service over the No-Build alternative and actually causes level of service to deteriorate on some portions of the target roadways.

14 The DEIS analysis of the Improve Existing Roadways Alternative is particularly disheartening. For example, the April 24 DEIS failed to review and consider the Charlotte Region Fast Lanes Study (draft Final Report March 2009) which concluded that a High Occupancy Toll (HOT) lane option was feasible, could be constructed in existing I-85 right of way, would save commuters 19 minutes, and unlike the Project would be fully self-supporting (construction and O&M) from toll revenues.³² The DEIS rejected the Improve Existing Roadways Alternative without detailed study and for summary conclusions that are redundant and at direct odds with other professional studies – travel times would not improve compared to the No-Build alternative, failure to provide east-west connectivity, and failure to improve level of service.³³

15 The Transportation Agencies have not engaged in an objective evaluation of the reasonable alternatives using empirical data. Compared to their willingness to overlook the same deficiencies with the Project, the Transportation Agencies have not conducted a good faith review of the alternatives. For this reason, the Transportation Agencies must conduct a proper alternatives analysis, reissue the DEIS, and present that alternatives analysis to the public for review and comment.

C. The Transportation Agencies have failed to properly consider the indirect effects and cumulative effects of terminating the Project at US 321.

16 Indirect effects are those “caused by the action and . . . later in time or farther removed in distance, but . . . still reasonably foreseeable.”³⁴ The Transportation Agencies have failed to evaluate the effects of the reasonably foreseeable – indeed probable – reality that the Project will dead-end into US 321 for decades, and perhaps forever. This reality, for example, has the potential to impact two historic neighborhoods located along US 321 and registered with the National Register of Historic Places.

³¹ *Id.*

³² Charlotte Region Fast Lanes Study (draft Final Report) (March 2009), pp. 3-8, 4-16, 5-2, 5-5, found at <http://www.charmeck.org/fastlanes/home.htm>. The Regional Technical Team included representatives from Charlotte Department of Transportation, North Carolina Department of Transportation, Gaston Urban Area Metropolitan Planning Organization, the North Carolina Turnpike Authority, and other transportation organizations. *Id.*, pp. 2-1 through 2-2. In contrast, the Transportation Agencies had no problem reviewing and citing to the March 31, 2009 *Indirect and Cumulative Effects Assessment, Gaston East-West Connector* (Louis Berger Group, March 31, 2009).

³³ DEIS, pp. 2-18 through 2-20.

³⁴ 40 C.F.R. § 1506.8.

As the June 2, 2009 study indicates, the dead-ending of the Project into US-321 is a significant change in Project implementation that has the potential to have seriously different impacts from those which have been presented by the Transportation Agencies in the DEIS. The DEIS states that an advantage of the Project is that it would provide an alternative controlled access route when incidents occur on I-85,³⁵ yet there is no such advantage for so long as the western terminus of the Project is US 321.

17 Federal transportation regulations require the Transportation Agencies to re-evaluate a phased project "if major steps to advance the action... have not occurred within *three years* after the approval of the final EIS."³⁶ Because it is evident that financing will not be available to implement the second phase for decades, the Transportation Agencies have an obligation to evaluate the Project now as if the Project terminates at US 321, as well as based upon the assumption that the Project may terminate at I-85. The public has a need to understand what the potential impacts of this probable termination point are, and the Transportation Agencies have an obligation to provide that information.³⁷

D. The DEIS fails adequately evaluate how the Project will impact the regional ozone "moderate" non-attainment status or contribute to greenhouse gases.

18 The DEIS fails to account for the fact that the withdrawal of the North Carolina State Implementation Plan means the MUMPO and GUAMPO transportation plans have now lapsed into a one year conformity grace period. At no point does the DEIS address the fact that by promoting suburban sprawl, the Project will increase total vehicles and VMT in the area, and substantially increase vehicle emissions of ozone precursors. This cannot help but have an additional negative impact on the region's ozone problem, currently designated "moderate" and likely to be designated "serious" at the end of this ozone season.

Given the fact that the region has been unable to reduce its baseline ozone levels, it is likely specific enforceable actions and transportation control measures will have to be

³⁵ DEIS, p. 2-22.

³⁶ 23 C.F.R § 771.129(b) (2000) (emphasis added). See also DOT Order 5610.1d, Item 22 (2000); See also DOT Order 5610.1c, Item 19 (1979).

³⁷ *Hickory Neighborhood Defense League v. Skimmer*, 893 F.2d 58, 63 (1990) (requiring an EIS supplement if a new circumstance "presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned."). The Transportation Agencies have a "continuing duty of examination," even after the issuance of a final EIS. *Jersey Heights Neighborhood Ass'n v. Glendening*, 174 F.3d 180, 190 (1999). This continuing duty is also embodied in the DOT's requirement that the agency issue a written reevaluation "if major steps to advance the action... have not occurred within *three years* after the approval of the final EIS." 23 C.F.R § 771.129(b) (2000) (emphasis added). Because it is evident that financing will not be available to implement the second phase for more than three years and most likely decades, the Transportation Agencies have an obligation to evaluate the Project as if it were to terminate at US 321 as well as at I-85.

18 adopted to control vehicle emissions. The DEIS fails to evaluate the impacts of the Project on an already serious regional ozone problem.

19 The DEIS provides no evaluation regarding the contributions that the Project will make towards greenhouse gas emissions. Federal law requires that the greenhouse gas emissions must be evaluated in the context of the Project.³⁸

E. The DEIS fails to adequately evaluate the effect of the Project upon area water quality, including water bodies on the draft § 303(d) list, nor does it include even a conceptual wetland mitigation plan.

20 The DEIS has not adequately evaluated the indirect effects and cumulative effects of the Project upon the impaired streams described on the draft § 303(d) list. The Project is a transportation facility designed to promote accelerated suburban sprawl in what is principally agricultural land and pastures. The area to be served by the Project does not have municipal water and sewer, and none is planned for much of the area.

Supporting documents to the DEIS state that constructing the Project would increase the speed and magnitude of water quality degradation in the area. The effect on water quality of increased impervious surfaces and atmospheric deposition from increased vehicle emissions "is believed to be substantial."³⁹ Yet, the DEIS does not empirically evaluate how the suburban sprawl spawned by the Project will impact the impaired streams or meaningfully address how those impacts can be mitigated.

21 The DEIS indicates that Design Study Alternative 9 will impact an estimated 7.5 acres of wetlands and 48,995 linear feet of streams.⁴⁰ The DEIS fails to evaluate how the required wetlands compensatory mitigation will be implemented. In fact, the DEIS states that even a "conceptual mitigation plan" is one of the several "unresolved issues and areas of controversy."⁴¹ Securing suitable compensatory wetland mitigation sites within the lower Catawba River watershed is a well-recognized problem,⁴² and the public has a need to understand how the Transportation Agencies propose to address this controversial issue.

³⁸ See, e.g., *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172 (9th Cir. 2008).

³⁹ *Indirect and Cumulative Effects Assessment, Gaston East-West Connector* (Louis Berger Group, March 31, 2009), pp. 132-133.

⁴⁰ DEIS, p. 6-25 and Table 6-5.

⁴¹ DEIS, App. S, p. S-16.

⁴² *Program Assessment and Consistency Group (PACG). Memorandum re Expanded service area for mitigating impacts within the Lower Catawba River Basin* (Oct. 8, 2008) (recognizing that "securing suitable mitigation in the Catawba 03 sub-basin continues to be problematic").

22 The DEIS has not evaluated the impacts that constructing the Project would have on the connector roads at each intersection. Most of these connector roads are two lane facilities. Similarly, the DEIS does not evaluate the effects that promoting suburban development would have on the largely undeveloped areas that are not serviced by municipal water or sewer or the water quality in those areas.

IV. THE PROJECT FAILS TO HAVE LOCAL SUPPORT.

23 The Project fails to have local support because the DEIS and other information in the public record demonstrates it fails to meet the stated purpose and need. As a illustration that the Project lacks local support, over 7,000 citizens have signed a petition opposed to the Project as described in the DEIS.⁴³

V. THE RECOMMENDED ROUTE DOES NOT HAVE LOCAL SUPPORT.

24 Twice in less than a year the Belmont City Council has passed resolutions rejecting DSA 9 because of the decidedly negative impacts DSA 9 would have upon the Town of Belmont. Each time, and consistent with its resolutions dating back to the late 1990's, Belmont expressed a strong preference for a route that parallels the Allen Steam Plant canal, Route G4/F9.⁴⁴ Route G4/F9 most closely reflects the route that is on the Gaston Urban Area 2030 Thoroughfare Plan. The Transportation Agencies eliminated all DSAs that depended upon Route G4/F9 "due to interference with critical operations at Allen Steam Station." DEIS, p. 9-14.

25 Duke Energy did not conclude that Route G4/F9 would interfere with its operations.⁴⁵ Route G4/F9 is depicted as passing over the northeast corner of the reactivated fly ash basin.⁴⁶ Nothing in the DEIS indicates whether actions were considered to mitigate potential impacts to operation of the fly ash basin. Such actions could include a flyover the basin (particularly relevant since the basin is adjacent to the Catawba River and any bridge spanning the Catawba River must also span the rail line that parallels the Catawba River), sacrificing a small portion of the fly ash basin to the Project just as homeowners are being asked to sacrifice their residences for the Project, or adjusting the route slightly north of the boundary of the fly ash basin. Recommended alternative DSA 9 does not have local support.

⁴³ Copies of petition signature pages are attached. Attachment 2.

⁴⁴ The DEIS identifies Route K1D as having been eliminated. However, the label "K1D" does not appear on DEIS Figure 2-6b; in its place is the label "G4/F9." For the purpose of these comments, K1D and G4/F9 are presumed to be synonymous.

⁴⁵ See Correspondence from Theodore A. Manes, Project Manager, Duke Energy, to Steve D. DeWitt, P.E., Chief Engineer, North Carolina Turnpike Authority (Aug. 7, 2007), DEIS App. A. Reportedly, Mr. DeWitt was unaware that his letter would be used by the Transportation Agencies to eliminate Route K1D.

⁴⁶ See, e.g., DEIS, Figure 2-5b and large scale aerial photographs used by Transportation Agencies in connection with public workshops.

* * *

Thank you for the opportunity to present these written comments. For the reasons stated above, the Project fails to meet the stated purpose and need and must be rejected. Furthermore, the DEIS does not meet regulatory requirements, must have additional evaluation, and that additional evaluation must be re-submitted for public review and comment.

Sincerely,



William W. Toole

ATTACHMENT 1

MAPQUEST. Sorry! When printing directly from the browser your directions or map may not print correctly. For best results, try clicking the Printer-Friendly button.

2500 Southpoint Rd
Belmont, NC 28012-7782

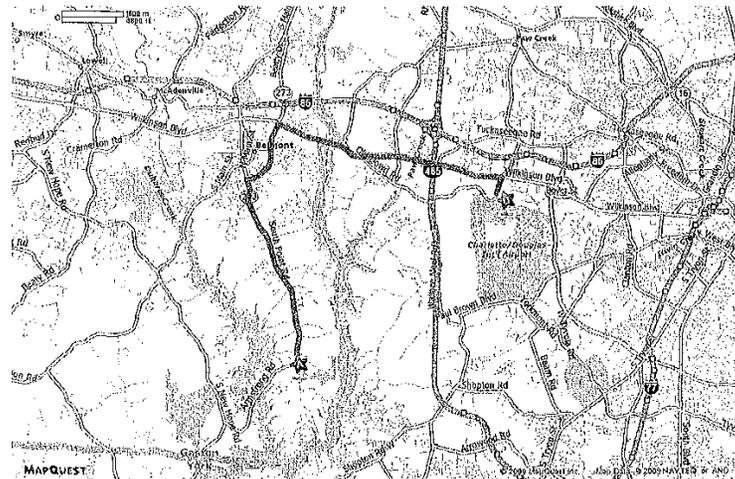
Charlotte/Douglas International Airport (CLT)
5501 Josh Birmingham Pkwy
Charlotte, NC 28208
Website | 704-359-4000

Total Estimated Time: 17 minutes
 Total Estimated Distance: 11.24 miles
 Total Estimated Fuel Cost: Fuel Cost

▼ Directions from A to B:

- 1: Start out going NORTH on SOUTH POINT RD/ SOUTHPOINT RD/ NC-273 toward HEATHER GLEN LN/ HIGHLAND POINTE DR. Continue to follow NC-273. 4.1 mi
- 2: Turn RIGHT onto KEENER BLVD/ NC-273. Continue to follow NC-273. 1.5 mi
- 3: Turn RIGHT onto E WILKINSON BLVD/ US-29 N/ US-74 E. 6.0 mi
- 4: Turn RIGHT onto LITTLE ROCK RD. 0.3 mi
- 5: Turn LEFT onto OLD DOWD RD. 0.2 mi
- 6: Turn RIGHT onto NC JOSH BIRMINGHAM PKWY. 0.1 mi
- 7: End at 5501 Josh Birmingham Pkwy Charlotte, NC 28208

Estimated Time: 17 minutes Estimated Distance: 11.24 miles
 Total Estimated Time: 17 minutes Total Estimated Distance: 11.24 miles



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i011

William W. Toole
714 Ann Street
Belmont, NC 28012

July 24, 2009

NOTE:

The page 9 provided in this addendum letter has been incorporated into Mr. Toole's letter (Document i011) and the original page 9 has been discarded.

VIA Email (gaston@ncturnpike.org) and U.S. Mail

Ms. Jennifer Harris, PE
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

Re: Gaston East-West Connector
STIP # U-3321, Federal Aid Project # STP – 1213(6) (Project)
Citizen Comments upon Draft Environmental Impact Statement of April 24, 2009

Errata – Correction to comments dated July 21, 2009

Dear Ms. Harris:

I noticed an error on page 9 of my comments submitted on July 21, 2009, incorrectly identifying the designation of the Charlotte region ozone non-attainment. With your permission, I would like to substitute the attached page 9 correcting the error for the page 9 originally submitted. Let me know if this is a problem.

Sincerely,



William W. Toole

Appendix B3 – Interest Group Comments

Table B3-11: William Toole

Document: i011 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Purpose and Need for Action	The Project fails to meet the stated purposes of reducing congestion and substantially improving east-west connectivity. Therefore, the Project has no merit and must be rejected.	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).
2	Alternatives Considered	Because the Transportation Agencies have summarily rejected without meaningful analysis practicable alternatives (such as establishing High Occupancy Toll (HOT) lanes on I-85, improving existing transportation facilities, and transportation demand management, or mass transit), the DEIS is defective.	The Draft EIS and <i>Addendum to the Final Alternatives Development and Evaluation Report for the Gaston East-West Connector</i> , incorporated by reference to the Draft EIS, provide a detailed analysis of project alternatives; including improvements to existing facilities and transportation demand management alternatives including HOT lanes. For the reasons discussed in Section 2.2 of the Draft EIS, Transportation System Management Alternatives, Transportation Demand Management Alternatives, Mass Transit/Multimodal Alternatives, and Improve Existing Roadways Alternatives were eliminated from detailed study. Also, as stated in the Draft EIS Section 2.2.4, North Carolina legislation (NCGS 136-89.187) prohibits "converting any segment of the non-tolled state highway system to a toll facility," so a TDM Alternative involving the conversion of existing free lanes on I-85 to HOT lanes is not possible without a change in state law. Also, see response to Comment 19 in the Southern Environmental Law Center's letter (Document i012/u002).
3	Indirect and Cumulative Effects	The DEIS is similarly defective because it has not analyzed the indirect and cumulative effects deriving from US 321 as the likely western terminus. Moreover, the expected adverse effects of uncontrolled suburban sprawl through agricultural lands that lack municipal water and sewer outweigh the marginal benefits of the Project. For these and additional reasons set out below, the DEIS must be re-written and resubmitted to the public for review and comment.	NCTA evaluated the ultimate proposed project in the Draft EIS, as required by NEPA. However, construction of large transportation projects such as the Gaston East-West Connector, I-485 in Charlotte, I-540 in Raleigh, etc., are typically constructed in phases as funding becomes available. Construction phases are determined after the environmental planning phase is completed based on availability of funding. The intent is to build as much of the project in the first phase as possible, with the remainder constructed as soon as possible after that. At this time, based on available information, NCTA is planning on initially constructing the entire length of the project, with four lanes from I-485 to US 321 and two lanes from US 321 to I-85. The section from US 321 to I-85 would be upgraded to four lanes by 2035. A qualitative indirect and cumulative effects analysis was prepared which provides a qualitative analysis of the potential indirect and cumulative effects from growth associated with the project. This report is summarized in Chapter 7 of the Draft EIS. A <i>Quantitative Indirect and Cumulative Effects Analysis</i> has been prepared for the Preferred Alternative and summarized in Section 2.5.5 of the Final EIS. This report quantifies the change in land cover that may occur with and without the Preferred Alternative. The availability of water and sewer, and local plans for

Appendix B3 – Interest Group Comments

Table B3-11: William Toole

Document: i011 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			expansion of water and sewer service, were taken into consideration in the qualitative and quantitative ICE studies.
4	Indirect and Cumulative Effects	A combination of factors, including the structural economic change away from manufacturing and industrial activity, the price of land, and the failure to connect to I-85 means the Project will not provide the economic stimulus promoters had originally hoped. Project construction "is anticipated to attract more residential development" to Gaston County, and the current expectation is that the Project will stimulate the development of very expensive housing projects, high end retail, and office parks in what is now largely agricultural and pasture land. Local economic development officials have warned that the Project poses the real risk of siphoning retail activity from established retail corridors along I-85 and the municipal downtowns if local leaders are not vigilant. As a practical matter, "Gaston County is likely to see sharp increases in growth with or without the construction of the proposed [P]roject."	<p>Economic stimulus is not a specific purpose of the project. The project purpose is stated in Section 1.3 of the Draft EIS, which is ""to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County." The ultimate project would extend from I-85 west of Gastonia to I-485 in Mecklenburg County, as evaluated in the Draft EIS.</p> <p>A qualitative indirect and cumulative effects analysis was prepared for the Draft EIS which provides a qualitative analysis of the potential indirect and cumulative effects from growth associated with the project. This report is incorporated by reference into the Draft EIS and summarized in Chapter 7. A <i>Quantitative Indirect and Cumulative Effects Analysis</i> has been prepared for the Preferred Alternative and summarized in Section 2.5.5 of the Final EIS. This report quantifies the change in land cover that may occur with and without the Preferred Alternative.</p>
5	Purpose and Need for Action	A primary purpose of the Project is to improve traffic flow and safe travel on I-85, US 29/74 and US 321 in the Project Study Area. The Project fails to meet the stated purpose of decreasing congestion. Table C-3 of the DEIS shows that traffic would operate at the same or worse level of service on US 29/74 if the Project is completed to I-85, compared to the No-Build scenario. With one exception, table C-2 shows no improvement to the level of service on I-85 if the Project is completed to I-85. The levels of service on US 321 are reported to be similar for all scenarios. The DEIS does not demonstrate the substantial improvement to I-85, US 29/74, or US 321 levels of service that is required to meet the stated Project purpose.	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).
6	Purpose and Need for Action	The DEIS contains no evaluation at all of the effect of terminating the Project at US 321, which is the likely western terminus. A June 2, 2009 study prepared by the North Carolina Turnpike Authority compares various traffic scenarios at US 321, including that of terminating the Project there. The study shows the following daily traffic counts in the year 2030 and demonstrates that constructing the Project increases traffic on I-85 at US 321. All the scenarios show I-85 operating over capacity. This analysis of the Project clearly shows congestion on I-85 does not improve as a result of constructing the Project.	The ultimate project would extend from I-85 west of Gastonia to I-485 in Mecklenburg County, as described and evaluated in the Draft EIS. However, construction of large transportation projects such as the Gaston East-West Connector, I-485 in Charlotte, I-540 in Raleigh, etc., are typically constructed in phases as funding becomes available. Construction phases are determined after the environmental planning phase is completed based on availability of funding. The intent is to build as much of the project in the first phase as possible, with the remainder constructed as soon as possible after that. At this time, based on available information, NCTA is planning on initially constructing the entire length of the project,

Appendix B3 – Interest Group Comments

Table B3-11: William Toole

Document: i011 letter dated July 21, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			<p>with four lanes from I-485 to US 321 and two lanes from US 321 to I-85. The section from US 321 to I-85 would be upgraded to four lanes by 2035.</p> <p>However, in order to respond to concerns expressed prior to, and as part of, the public review process for the Draft EIS, the NCTA studied traffic forecasts for a potential interim project phase ending at US 321. The studies indicate there would be an increase in traffic along US 321 from the Gaston East-West Connector north to Stagecoach Road for a distance of approximately 3/4 mile. Beyond Stagecoach Road, the traffic is estimated to generally be the same with or without the interim project phase. Under both an interim phase for the project and the ultimate project, a corridor-level analysis indicates US 321 would operate under capacity and at acceptable levels of service from Robinson Road to US 29-74 through the year 2030. Therefore, the project would not be expected to have an impact on the Yorkchester historic district.</p> <p>Regarding traffic on I-85, refer to response to Comment 1 in the Catawba Riverkeeper's letter (Document i006).</p>
7	Alternatives Considered	Notwithstanding the data in Tables C-2 and C-3, and the June 2, 2009 analysis by the North Carolina Turnpike Authority, the DEIS states "[t]raffic operations would improve on I-85 and on segments of US 29-74 with the New Location Alternative (Toll or Non-Toll Scenario) compared to the No-Build Alternative." This statement is demonstrably wrong, yet it formed the basis for the decision to recommend a second screening of the Project at the expense of various other alternatives, including the No-Build alternative.	As stated in Draft EIS Appendix C (Page C-5), "Improvements to I-85 under the Improve Existing Roadways Alternative Scenario 4 result in additional traffic volumes being attracted to I-85. Under the New Location Alternatives (Toll and Non-Toll Scenarios), traffic volumes increase slightly on I-85 west of US 321 and decrease east of US 321 compared to the No-Build Alternative, as travelers divert to the new highway." Please also refer to response to Comment 1 in the Catawba Riverkeeper's letter (Document i006).
8	Alternatives Considered	Similarly, the June 2, 2009 study shows traffic on US 321 increasing if the Project is constructed, compared to the No Build scenario. At some sections, the increase over the No-Build scenario is as much as 87%, and the level of service demonstrably deteriorates in one section if the Project is constructed. This June 2 study demonstrates why it is necessary for the Transportation Agencies to evaluate the effects of terminating the Project at US 321 and provide an opportunity for full public evaluation prior to taking any final agency action.	See response to Comment 6 in Mr. William Toole's letter (Document i011).
9	Purpose and Need for Action	Since the conceptual stage of the Project, relieving congestion on I-85 has been a primary purpose of the East-West connector. The 2030 Long Range Transportation Plan by the Gaston Urban Area MPO, for example, states that the purpose of the toll road is to "serve as a bypass to Interstate 85, US 29/74 and US 321" and a "reliever to I-85 and US 29/74." The DEIS declares that the purpose of the toll road is "to improve traffic flow on the sections of I-85, US 29-74 and US 321" in the	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002).

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		<p>study area, and to "reduce congested vehicle miles travelled" compared to traffic if the Project is not built. The Updated Final Purpose and Need Statement is equally clear that relieving traffic congestion on I-85, US 29/74 and US 321 is a fundamental purpose of the Project. Despite the statement of purpose and need in the DEIS, numerous supporting documents, and widespread community expectations regarding the Project purpose, the North Carolina Turnpike Authority has stated publicly on numerous occasions that the purpose of the Project "is not to alleviate congestion on I-85." This failure to understand a basic Project purpose means the Transportation Agencies cannot have conducted a proper evaluation determining whether the Project meets the stated purpose. The toll road does not meet the basic purpose of relieving traffic congestion on I-85, US 29/74, or US 321. Consequently, the Project has no merit.</p>	
10	Purpose and Need for Action	<p>A second stated purpose of the Project is to improve connectivity within Gaston County, and between Gaston County and Mecklenburg County. The DEIS demonstrates that such connectivity is marginal at best. In many cases, the estimated time savings described in the DEIS appear to be highly inflated. The Transportation Agencies estimate that travel between downtown Gastonia and the Belmont Peninsula (South Point Road/Armstrong Road intersection) on this \$1.2 billion toll road will decrease 2 minutes in 2030. This savings is minimal, is not sufficient to warrant the disruption the Project will cause or its cost, and Gaston County residents are not likely to pay tolls for such minimal time savings. If DEIS estimates are to be believed, in 2030 Belmont Peninsula residents will save 23 minutes travelling from the South Point Road/Armstrong Road intersection to the Charlotte-Douglas Airport by taking the toll bridge. This time savings occurs in part because the No-Build alternative is estimated to take 57 minutes. Currently, Map Quest shows the trip taking 17 minutes. For the proposed travel savings to be correct, traffic must become so congested in twenty years that the trip increases by 40 minutes, an increase of over two hundred percent. This simply is not credible, and estimates of other times savings appear to be equally inflated. The Project provides no meaningful, credible improvement in east-west connectivity, and certainly is not worth the impacts it will cause to the environment and the community. For example, Google Maps shows that at the US 321 terminus there is no development at the US 321/Robinson Road interchange. As such, it is not a travel destination and cannot meet the requirement that a NC DOT Strategic Highway Corridor connect to a "travel destination." The sole effect of the Project is to induce development in a part of the county that is currently rural, not provide connectivity between existing destinations. Opening south Gaston County for development is not a recognized Project purpose. The DEIS concludes that the Project will produce "substantial time savings" for inter-county travel. The facts</p>	<p>The ultimate project extends from I-85 west of Gastonia to I-485 in Mecklenburg County, and this is the project NCTA evaluated in the Draft EIS as required by NEPA, and this is the project NCTA intends to construct as soon as possible.</p> <p>Origin and destination travel time estimates are reported in the Draft EIS in Section C.2 of Appendix C. These values are output from the approved Metrolina Regional Travel Demand Model that was used to forecast traffic for the proposed project. The origin/destination travel time savings estimates are comparisons between the No-Build Alternative for the year 2030 and the New Location Alternative (Toll Scenario) for the year 2030. These travel times would not necessarily correlate to travel times experienced today. As shown in Table C-4 in Appendix C of the Draft EIS, travel time savings under the New Location Alternative for trips within Gaston County are greatest (8-9 minutes) for trips starting and ending in southern Gaston County, reflecting the increased mobility the proposed project would provide within southern Gaston County. For trips between southern Gaston County and western Mecklenburg County, the travel time savings would be greater, ranging from 9-28 minutes depending on origin and destination (Table C-5 in Appendix C of the Draft EIS). These time savings are representative of these specific trips. Travel times of other trips within the project study area may vary.</p> <p>Travel time savings in 2030 realized by constructing the proposed project compared to the No-Build Alternative would be substantial for many specific origin/destination pairs, and the project also would have an effect on overall average travel times for trips throughout the project study area. In addition, the proposed project would provide an additional east-west</p>

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		show otherwise.	route between Gaston County and Mecklenburg County that would operate at LOS D or better through 2035, which is a traffic flow benefit that cannot be achieved under either the Improve Existing Roadways Alternatives or the No-Build Alternative.
11	Editorial	The DEIS does not meet the minimum standards required of the Transportation Authorities. It depends upon a model that observed data shows to be inaccurate. The evaluation of the available alternatives is cursory and without empirical support. The DEIS conducts no analysis of the impacts deriving from US 321 as the likely western terminus of the Project. Nor does the DEIS adequately evaluate the Project impact upon the region's serious non-attainment status for ozone and the fact that there is no conformity plan in place. For each of these and other reasons set out below, additional work must be conducted and the DEIS re-presented to the public for review and comment.	Regarding the traffic model, please refer to response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002). Regarding US 321 being a likely project terminus, please refer to response to Comment 6 in Mr. William Toole's letter (Document i011). Regarding non-attainment, please refer to response to Comment 39 in the Southern Environmental Law Center's letter (Document i012/u002).
12	Land Use and Transportation Planning	The DEIS describes traffic volumes for the base year 2006 as "existing," yet comparison of these figures to traffic volumes observed in 2007 by the NCDOT Traffic Survey Group shows the 2006 figures to be inflated estimates. The DEIS appears to have consistently overestimated the "existing" traffic volume along each of the major roadways in the project area. This leads to inflated traffic congestion projections. The failure to accurately reconcile the 2006 estimates with the 2007 observed data further corrodes the credibility of the long-term model projections.	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002).
13	Alternatives Considered	<p>The DEIS cursorily reviews, then summarily concludes, that a number of alternatives, including High Occupancy Toll (HOT)/High Occupancy Vehicle (HOV) lanes on I-85, expanded mass transit, upgrading the existing road system, or some combination of these, fail to meet or exceed the defined purpose and need. Of course, the Transportation Agencies then fail to apply the same standard of success to the preferred alternative of Project construction.</p> <p>For example, the Transportation Agencies summarily reject the Transportation Demand Alternative because "travel times would not be noticeably reduced" and it would not "noticeably improve" congestion on I-85, US 29/74 and US 321. It does not appear the Transportation Agencies reviewed any empirical data. As shown above, the Project does not noticeably reduce travel times, and it actually increases congestion on target roads. The Transportation Agencies seem to have applied a more stringent standard to the Transportation Demand Alternative than to its review of the Project.</p> <p>The Transportation Agencies concluded that Mass Transit Improvements on Existing Locations (consisting of bus or rail service) would not attract enough trips to noticeably reduce vehicle miles travelled or congestion. The DEIS does not</p>	See response to Comment 19 in the Southern Environmental Law Center's letter (Document i012/u002) regarding range of alternatives evaluated. See response to Comment 24 in the Southern Environmental Law Center's letter (Document i012/u002) regarding mass transit alternatives.

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		<p>contain any study to support this conclusion. The community experience is that before the economic downturn, demand for the Gastonia Express bus to uptown Charlotte was so great in July 2008 that there was standing room only on each of the four buses for the 7,400 riders. The Transportation Agencies also reject the alternative because buses would travel on roadways operating at poor levels of service E or F. The DEIS fails to apply the same criteria and reject the Project, even though the Project does not improve level of service over the No-Build alternative and actually causes level of service to deteriorate on some portions of the target roadways.</p>	
14	Alternatives Considered	<p>The DEIS analysis of the Improve Existing Roadways Alternative is particularly disheartening. For example, the April 24 DEIS failed to review and consider the Charlotte Region Fast Lanes Study (draft Final Report March 2009) which concluded that a High Occupancy Toll (HOT) lane option was feasible, could be constructed in existing I-85 right of way, would save commuters 19 minutes, and unlike the Project would be fully self-supporting (construction and O&M) from toll revenues. The DEIS rejected the Improve Existing Roadways Alternative without detailed study and for summary conclusions that are redundant and at direct odds with other professional studies - travel times would not improve compared to the No-Build alternative, failure to provide east west connectivity, and failure to improve level of service.</p>	<p>The Fast Lanes Study is discussed in Section 2.2.6.2 of the Draft EIS (pages 2-14 and 2-15). The Draft EIS states that the Fast Lanes Study is evaluating the feasibility of providing one additional managed lane in each direction by restriping the existing pavement. However, the restriping would result in 11-foot wide lanes, which would be substandard for an interstate facility. The reduced shoulder and lane widths are major design changes that would need to be approved by NCDOT and FHWA. The design exceptions likely would not be approved since they would not be consistent with the American Association of State Highway and Transportation Officials (AASHTO) <i>Policy on Design Standards - Interstate System</i> (January 2005). If the new managed lanes were high-occupancy toll lanes, the two-foot shoulder that would result from the restriping would effectively eliminate the ability for enforcement of the occupancy requirement. If the new managed lanes were toll-only, the limited two-foot shoulder would be undesirable from a customer-service standpoint. Any vehicles that break down within the single toll lane would block the toll lane until such time that they could be safely removed.</p> <p>The Fast Lanes Study was finalized in July 2009. For the I-85 corridor west of Charlotte, the final study concludes that although revenue potential for a HOT lane would be favorable and travel times could be reduced, the physical attributes of the I-85 corridor in Gaston County would make it costly to add managed lanes to the existing cross-section and there is little opportunity for construction of a Fast Lanes facility without using design exceptions.</p>

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15	Alternatives Considered	The Transportation Agencies have not engaged in an objective evaluation of the reasonable alternatives using empirical data. Compared to their willingness to overlook the same deficiencies with the Project, the Transportation Agencies have not conducted a good faith review of the alternatives. For this reason, the Transportation Agencies must conduct a proper alternatives analysis, reissue the DEIS, and present that alternatives analysis to the public for review and comment.	See response to Comment 19 in the Southern Environmental Law Center's letter (Document i012/u002).
16	Indirect and Cumulative Effects	Indirect effects are those "caused by the action and ... later in time or farther removed in distance, but ... still reasonably foreseeable." The Transportation Agencies have failed to evaluate the effects of the reasonably foreseeable - indeed probable - reality that the Project will dead-end into US 321 for decades, and perhaps forever. This reality, for example, has the potential to impact two historic neighborhoods located along US 321 and registered with the National Register of Historic Places.	See response to Comment 6 in Mr. William Toole's letter (Document i006). In order to respond to concerns expressed prior to, and as part of, the public review process for the Draft EIS, the NCTA studied traffic forecasts for a potential interim project phase ending at US 321. The studies indicate there will be an increase in traffic along US 321 from the Gaston East-West Connector north to Stagecoach Road for a distance of approximately 3/4 mile. Beyond Stagecoach Road, the traffic is estimated to generally be the same with or without the interim project phase. Under both an interim phase for the project and the ultimate project, a corridor-level analysis indicates US 321 would operate under capacity and at acceptable levels of service from Robinson Road to US 29-74 through the year 2030. Therefore, the project would not be expected to have an impact on the York Chester historic district or the Downtown Gastonia historic district farther north along US 321.
17	Alternatives Considered	As the June 2, 2009 study indicates, the dead-ending of the Project into US-321 is a significant change in Project implementation that has the potential to have seriously different impacts from those which have been presented by the Transportation Agencies in the DEIS. The DEIS states that an advantage of the Project is that it would provide an alternative controlled access route when incidents occur on I-85, yet there is no such advantage for so long as the western terminus of the Project is US 321. Federal transportation regulations require the Transportation Agencies to re-evaluate a phased project "if major steps to advance the action ... have not occurred within three years after the approval of the final EIS." Because it is evident that financing will not be available to implement the second phase for decades, the Transportation Agencies have an obligation to evaluate the Project now as if the Project terminates at US 321, as well as based upon the assumption that the Project may terminate at I-85. The public has a need to understand what the potential impacts of this probable termination point are, and the Transportation Agencies have an obligation to provide that information.	See response to Comment 6 in Mr. William Toole's letter (Document i011).
18	Air Quality	The DEIS fails to account for the fact that the withdrawal of the North Carolina State Implementation Plan means the MUMPO and GUAMPO transportation plans have now lapsed into a one year conformity grace period. At no point does the	See response to Comment 39 in the Southern Environmental Law Center's letter (Document i012/u002).

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		DEIS address the fact that by promoting suburban sprawl, the Project will increase total vehicles and VMT in the area, and substantially increase vehicle emissions of ozone precursors. This cannot help but have an additional negative impact on the region's ozone problem, currently designated "serious" and likely to be designated "severe" at the end of this ozone season. Given the fact that the region has been unable to reduce its baseline ozone levels, it is likely specific enforceable actions and transportation control measures will have to be adopted to control vehicle emissions. The DEIS fails to evaluate the impacts of the Project on an already serious regional ozone problem.	
19	Air Quality	The DEIS provides no evaluation regarding the contributions that the Project will make towards greenhouse gas emissions. Federal law requires that the greenhouse gas emissions must be evaluated in the context of the Project.	See response to Comment 45 in the Southern Environmental Law Center's letter (Document i012/u002).
20	Water Resources	The DEIS has not adequately evaluated the indirect effects and cumulative effects of the Project upon the impaired streams described on the draft 303(d) list. The Project is a transportation facility designed to promote accelerated suburban sprawl in what is principally agricultural land and pastures. The area to be served by the Project does not have municipal water and sewer, and none is planned for much of the area. Supporting documents to the DEIS state that constructing the Project would increase the speed and magnitude of water quality degradation in the area. The effect on water quality of increased impervious surfaces and atmospheric deposition from increased vehicle emissions "is believed to be substantial." Yet, the DEIS does not empirically evaluate how the suburban sprawl spawned by the Project will impact the impaired streams or meaningfully address how those impacts can be mitigated.	The project was designed to meet the project purpose as stated in Section 1.3 of the Draft EIS. The qualitative Indirect and Cumulative Effects Assessment for the Gaston East-West Connector (March 2009), summarized in Chapter 7 of the Draft EIS, included an evaluation of the potential for water quality effects. Additional quantitative studies of indirect and cumulative effects were conducted for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS. The analysis includes a discussion of water quality. An agency scoping meeting was held on August 12, 2009 to ensure that the study approach and scope met the expectations of the agencies.
21	Water Resources	The DEIS indicates that Design Study Alternative 9 will impact an estimated 7.5 acres of wetlands and 48,995 linear feet of streams. The DEIS fails to evaluate how the required wetlands compensatory mitigation will be implemented. In fact, the DEIS states that even a "conceptual mitigation plan" is one of the several "unresolved issues and areas of controversy." Securing suitable compensatory wetland mitigation sites within the lower Catawba River watershed is a well-recognized problem, and the public has a need to understand how the Transportation Agencies propose to address this controversial issue.	The Draft EIS Section 6.4.4 addresses impacts to jurisdictional resources, which include wetlands, streams, ponds, and Catawba River buffers. Permitting and mitigation for jurisdictional resources are discussed in Section 6.4.5 of the Draft EIS. As stated in Draft EIS Section 6.4.5.4, the NCTA intends to primarily use the in-lieu fee payment option made to the NCDENR Ecosystem Enhancement Program (EEP) for mitigation needs. A <i>Conceptual Mitigation Plan</i> was prepared for the Preferred Alternative to provide additional detail on potential off-site and on-site mitigation opportunities. The <i>Conceptual Mitigation Plan</i> is discussed in Section 2.5.4.4 of the Final EIS.

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22	Indirect and Cumulative Effects	The DEIS has not evaluated the impacts that constructing the Project would have on the connector roads at each intersection. Most of these connector roads are two lane facilities. Similarly, the DEIS does not evaluate the effects that promoting suburban development would have on the largely undeveloped areas that are not serviced by municipal water or sewer or the water quality in those areas.	Traffic operations analyses were performed for the preliminary engineering designs of Detailed Study Alternatives, as described in Section 2.4.4.2 of the Draft EIS. Details regarding the traffic operations analyses, which included analyses of cross-streets at the interchange locations, are included in the <i>Final Toll Traffic Operations Technical Memorandum - Gaston East-West Connector</i> (September 2008), which was incorporated by reference and available on the NCTA Web site for download. The qualitative <i>Indirect and Cumulative Effects Assessment for the Gaston East-West Connector</i> (March 2009) summarized in Chapter 7 of the Draft EIS, included an evaluation of the potential for development at each interchange location. The evaluation is summarized in Section 7.5.1 of the Draft EIS (pages 7-14 and 7-15). Additional quantitative studies of indirect and cumulative effects were conducted for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS.
23	Purpose and Need for Action	The Project fails to have local support because the DEIS and other information in the public record demonstrates it fails to meet the stated purpose and need. As an illustration that the Project lacks local support, over 7,000 citizens have signed a petition opposed to the Project as described in the DEIS.	See response to Comment 1 in the Catawba Riverkeeper's letter (Document i006) regarding purpose and need. The NCTA received the referenced petition during the Draft EIS review period and it is part of the project record. Public comment received during the review period is summarized in Section 3.3 of the Final EIS. Comments in support of the project and in opposition to the project were received. The project has the support, through adopted resolutions, of several local entities (included in Final EIS Appendix B except as noted), including: the Town of Cramerton (Draft EIS Appendix A-6), the Gaston Urban Area MPO, Gaston Regional Chamber of Commerce, Montcross Chamber of Commerce, Gaston Travel and Tourism Advisory Board, Gaston 2012, and Gaston Together. The project continues to be the number one priority in the Gaston Urban Area MPO long range transportation plan.
24	Alternatives Considered	Twice in less than a year the Belmont City Council has passed resolutions rejecting DSA 9 because of the decidedly negative impacts DSA 9 would have upon the Town of Belmont. Each time, and consistent with its resolutions dating back to the late 1990's, Belmont expressed a strong preference for a route that parallels the Allen Steam Plant canal, Route G4/F9. ⁴⁴ Route G4/F9 most closely reflects the route that is on the Gaston Urban Area 2030 Thoroughfare Plan. The Transportation Agencies eliminated all DSAs that depended upon Route G4/F9 "due to interference with critical operations at Allen Steam Station." DEIS, p. 9-14.	In the screening process, Preliminary Segments G4/F9 made it through preliminary screening and became Corridor Segment K1D. The reasons why Corridor Segment K1D were eliminated are discussed in Section 2.3.4.2 of the Draft EIS, and they are still valid. The Town of Belmont submitted a resolution during the public review period for the Draft EIS. The resolution (Document g008), requests that the NCTA "reconsider its abandonment of the former Middle Alignment (K1D) by further researching a route that, while necessarily avoiding new improvements to Duke Energy's Plant Allen Steam Station, would more closely adhere to the route formally proposed by the original Gaston County Citizens Bypass Committee, preferably paralleling the northern bank of the Plant Allen

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			canal as closely as possible." The resolution then states "the City Council of the City of Belmont, North Carolina also affirms its support of another bridge crossing of the Catawba River on the South Point peninsula to alleviate future traffic in this area."
25	Alternatives Considered	Duke Energy did not conclude that Route G4/F9 would interfere with its operations. Route G4/F9 is depicted as passing over the northeast corner of the reactivated fly ash basin. Nothing in the DEIS indicates whether actions were considered to mitigate potential impacts to operation of the fly ash basin. Such actions could include a flyover the basin (particularly relevant since the basin is adjacent to the Catawba River and any bridge spanning the Catawba River must also span the rail line that parallels the Catawba River), sacrificing a small portion of the fly ash basin to the Project just as homeowners are being asked to sacrifice their residences for the Project, or adjusting the route slightly north of the boundary of the fly ash basin. Recommended alternative DSA 9 does not have local support.	In a letter dated August 7, 2007, included in Appendix A-5 of the Draft EIS, Duke Energy specifically notes that Segment K1D (formerly G4/F9) would cross over a retired ash basin. In conjunction with Duke's modernization process, the letter states that this basin is the subject of design and permitting to construct a storage area for Coal Combustion Products. The decision to eliminate Corridor Segment K1D is discussed further in Section 2.3.4.2 of the Draft EIS.

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July 21, 2009

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VIA US MAIL AND E-MAIL

Re: Draft Environmental Impact Statement for Gaston East-West Connector Project

Dear Ms. Harris,

On behalf of the Carolinas Clean Air Coalition and the Catawba Riverkeeper, the Southern Environmental Law Center ("SELC") offers the attached comments on the above-referenced draft Environmental Impact Statement ("DEIS") prepared by the Federal Highway Administration, the North Carolina Department of Transportation ("NCDOT"), and the North Carolina Turnpike Authority (the "Transportation Agencies"). The DEIS analyzes the impacts of the proposed alternatives for the Gaston East-West Connector project ("the Project").

In our comments, we identify a number of issues related to the proposed Project which we believe require significantly greater disclosure and analysis to comply with the National Environmental Policy Act ("NEPA") and other federal and state laws relevant to the potential eventual permitting of this project. The key shortcomings of the DEIS include the following:

- 1 [• The DEIS presents inflated estimates of traffic volumes along area roadways, including estimates for recent years that far exceed the traffic volumes actually observed by NCDOT, which skew the analysis of the Project's purpose and alternatives.
- 2 [• The DEIS claims that the Project would serve the purpose of relieving congestion on US 29/74, US 321 and I-85, but the data presented in the DEIS shows that traffic congestion would either grow worse or remain the same along these roadways.
- 3 [• Common sense upgrades to the area's highway, transit, and freight rail facilities, which in various combinations could address congestion on I-85, receive only cursory consideration in the DEIS.

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- 4 [• The DEIS does not analyze air quality impacts, including the project's significant contribution to greenhouse gas emissions, or explain how the project would not hamper achievement and maintenance of air quality standards under the Clean Air Act.
- 5 [• The DEIS does not adequately assess how the project—and the development it would induce – will impact already impaired water quality in the area, nor offer any information about the substantial wetlands and stream mitigation that would need to occur within the Catawba River basin.

6 [The immense scale of this project, 21.9 miles of new highway into a relatively undeveloped portion of Gaston County at a cost of \$1.282 billion, calls for an especially thorough review under NEPA. The DEIS, however, belies any notion that its authors undertook an objective evaluation, which might have favored a transportation investment at odds with the North Carolina Turnpike Authority's narrow mandate under NCGS 136-176(b)(2): "construction of the Garden Parkway." The numerous and significant shortcomings of the DEIS prevent meaningful review of the Project, its many far-reaching impacts, and potential alternatives. We urge the Transportation Agencies to revise their analysis of alternatives and impacts according to the recommendations set forth herein and to issue a revised Draft Environmental Impact Statement for public review and comment.

Sincerely,

J. David Farren,
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Thomas M. Gremillion,
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TG/kd

Comments on the Draft Environmental Impact Statement for Gaston East-West Connector
Project

July 21, 2009

By David Farren and Thomas Gremillion

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I. INTRODUCTION

As the DEIS points out, the genesis of the Gaston East-West Connector dates back to the late 1980s. Billed as the "US 321/74 Bypass," the original project would have looped around Gastonia, from the Charlotte Douglas Airport westward over the Catawba River, through southern Gaston County, across US 321 and I-85, and then northward past the town of Dallas, eventually reconnecting with US 321. In 2001, the bypass adopted a new name, the "Garden Parkway," and in 2005, the Garden Parkway split into two projects: the US 321 Bypass and the Gaston East-West Connector. If built to completion, the Gaston East-West Connector would end at I-85 west of Gastonia.

In the DEIS, the Transportation Agencies have refashioned the Gaston East-West Connector as a toll highway. Despite the novelty of toll roads in North Carolina, the project described in the DEIS represents a 20th century solution for North Carolina's 21st century mobility challenges.

The Project would cost over \$1.2 billion. Anticipated toll revenues would only finance a fraction of that amount. State and federal funding would have to cover the rest, diverting transportation dollars that could be used to address the Charlotte area's documented transportation needs, which this project will eventually worsen. The Project would fuel sprawling development outward from Charlotte, transforming the bucolic landscape of southern Gaston County, impeding the growth of transit-oriented development in the Charlotte metropolitan area, and thwarting plans to expand the city's light rail network to the Charlotte Douglas Airport and elsewhere. The resulting auto-centric development would cause traffic volumes to increase along much of I-85 and other major highways in the Gaston County, making traffic operations worse on those roadways. It would hamper the Charlotte region's efforts to come into compliance with the Clean Air Act when the area is having great difficulty in attaining air quality standards and facing a potential loss of federal transportation funding. And it would degrade already impaired water quality in the Catawba River basin. Yet the DEIS fails to credibly identify how the Project would satisfy any legitimate transportation need.

Given its scale, cost, and regional importance, the Transportation Agencies' evaluation of the Project under NEPA must be equally rigorous. Instead, the Agencies have issued a DEIS that suffers from multiple inaccuracies, omissions and other shortcomings. The DEIS mischaracterizes the conditions in the area that purportedly establish a need for the Project. It provides only a cursory treatment of induced population growth, and it fails to adequately assess the Project's impact on water quality, air quality, and the overall quality of life in the Charlotte area. These shortcomings prevent the meaningful and informed evaluation of the Project as required by NEPA. The Agencies should issue a revised DEIS that fully addresses these impacts and includes careful evaluation of a viable upgrade alternative that responds to demonstrated needs, such as a lack of mobility options for area residents, insufficient freight rail capacity, and

8 traffic bottlenecks at points such as the interchange of I-85 and US 321, and the US 29-74 Catawba River crossing.

II. BASIC NEPA REQUIREMENTS

The National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (NEPA), embodies a broad national commitment to protecting and promoting environmental quality. *Robertson v. Methow Valley Citizens Council*, 109 S. Ct. 1835, 1845 (1989). NEPA implements this commitment by focusing government and public attention on the environmental effects of a proposed agency action, ensuring that important environmental consequences will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast. In short, NEPA requires that the evaluation of a project's environmental consequences take place early in the project's planning process. *North Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1540 (11th Cir. 1990).

The preparer of an EIS "must go beyond mere assertions" and provide sufficient data and reasoning to enable a reader to evaluate the analysis and conclusions and to comment on the EIS. *Silva v. Lynn*, 482 F.2d 1282, 1287 (1st Cir. 1973). In particular, the discussion of alternatives should be presented in a straightforward, compact and comprehensible manner. *Id.*

Equally important, an EIS provides the basis for a decision under Section 404(a) of the Clean Water Act, 33 U.S.C. § 1344(a), which authorizes the Corps of Engineers to issue permits for the discharge of dredged or fill materials into wetlands or other waters. The Corps must deny applications for section 404 permits if "[t]here is a practicable alternative to the proposed discharge that would have less adverse effect on the aquatic ecosystem, so long as such alternative does not have other significant adverse environmental consequences." 33 C.F.R. § 320.4(a)(i).

III. PURPOSE AND NEED

1. Project Needs and Goals

The DEIS identifies the "purpose" of the Gaston East-West Connector Project as addressing the following needs:

- To improve east-west mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and between southern Gaston County and western Mecklenburg County.
- To improve traffic flow on I-85, US 29-74, and US 321 in the Project area.¹

¹ Turnpike Authority Engineer Jennifer Harris was reported in the Belmont Banner News (July 1, 2009) to have said that project's "purpose is not to alleviate congestion on I-85," but rather to "help establish connectivity and mobility between Gaston and Mecklenburg counties." She reportedly referred readers to page 1-3 of the DEIS. That section reads:

- To provide high-speed, safe, reliable regional travel service along the I-85 corridor. [1-3]

The DEIS explains that the agencies measured each alternative’s satisfaction of the project purpose by the extent to which it could 1) reduce travel distances and times between sample origins and destinations in the project area; 2) provide a highway between Gaston and Mecklenburg County that operates at LOS D or better; and 3) reduce congested vehicle miles traveled and/or congested vehicle hours traveled in Gaston County compared to the No-Build Alternative in 2030.

2. Regulatory Framework

NEPA regulations require the Agencies to provide a statement specifying “the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 CFR § 1502.13. An agency may not “narrow the objective of its action artificially and thereby circumvent the requirement that relevant alternatives be considered,” *City of New York v. Dep’t of Transp.*, 715 F.2d 732, 743 (2d Cir. 1983). Rather, an agency must look hard at the factors relevant to the defined purpose, and define goals for its action that fall somewhere within the range of reasonable choices. *Id.* “One obvious way for an agency to slip past the structures of NEPA is to contrive a purpose so slender as to define competing ‘reasonable alternatives’ out of consideration (and even out of existence).” *Davis v. Mineta*, 302 F.3d 1104, 1119 (10th Cir. 2002) quoting *Simmons v. United States Army Corps of Eng’rs*, 120 F.3d 664, 666 (7th Cir. 1997). Unfortunately, this DEIS takes such an approach.

3. Deficiencies in the Purpose and Needs Section

The “Purpose and Needs” section of the DEIS is ambiguous, imprecise, and inaccurate. The DEIS fails to justify its focus on connecting “southern Gaston County and western Mecklenburg County,” presenting a confusing array of data from variously defined geographic locations. The section presents traffic forecast data that is demonstrably false. In general, rather than identifying an underlying purpose that the project might fulfill, the DEIS restates the specific project design that meets the North Carolina Turnpike Authority’s mandate to build the “Garden Parkway” toll road. The resulting project purpose is too narrow to support

The purpose of the proposed action is to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County. This project purpose is based on the following needs:

- Need to improve mobility, access, and connectivity within southern Gaston County and between Southern Gaston County and western Mecklenburg County.
- Need to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area and improve high-speed, safe, reliable regional travel service along the I-85 corridor. (emphasis added).

The language of the DEIS plainly indicates that a major project purpose is to alleviate congestion on I-85. In any event, to the extent that the Turnpike Authority now concedes that this project will not serve this stated purpose, SELC agrees.

9 consideration of the reasonable range of alternatives required by NEPA. Consequently, it is also insufficient to support the identification and permitting of the least damaging practicable alternative that meets the underlying purpose of the project, as required under CWA § 404.

10 The contrived and misleading nature of the DEIS “Purpose and Needs” section offers compelling evidence of the need to put the responsibility for conducting the NEPA process for proposed highway projects in the hands of an agency other than the North Carolina Turnpike Authority. The state legislature has appropriated \$35 million annually to the Turnpike Authority “to pay debt service or related financing expenses on revenue bonds or notes issued for the construction of the Garden Parkway.”² Without “construction of the Garden Parkway,” the Turnpike Authority is not eligible to receive this funding. Not surprisingly, the Turnpike Authority staff and consultants that serve as the primary authors of the DEIS have created a document that is biased in favor of constructing the toll road on which the agency’s funding depends.

A. Connectivity

Much of the DEIS alternatives analysis emphasizes the project’s purpose of providing “direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County.” [1-3] Yet the DEIS provides no evidence that connecting the areas actually to be served by the highway will respond to the needs of anyone other than real estate developers.

11 The DEIS reports that “[l]imited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties.” [1-2] A textbox in the DEIS emphasizes: “There are only four bridges over the Catawba River between Gaston and Mecklenburg Counties. None are in southern Gaston County.” [1-9] The DEIS declines to mention that NC 49 crosses the Catawba river and provides access to Charlotte eleven miles south of the US 29-74 bridge, just over the Gaston County border. And the DEIS declines to explain why “only four bridges” across the Catawba River in Gaston County represents a problem; other North Carolina rivers in other North Carolina counties are spanned by less than four bridges. In general, the DEIS fails to show that an additional bridge over the Catawba River would respond to any existing mobility need south of the existing bridges.

12 The DEIS claims that the Project must accommodate “rapid growth” in the project area, because this growth will “increase demands for accessibility and connectivity.” [1-2] But growth in the project area has concentrated along the I-85 and US 29-74 corridors, in areas that would benefit little from a new toll highway 5-10 miles south of I-85. Indeed, the DEIS traffic projections predict that the new toll highway would cause further traffic congestion on much of I-85 and US 29-74, hampering the mobility of residents in these existing communities.

13 The DEIS suggests that a sizable population currently resides near the planned corridor for the toll highway and that this population is growing rapidly. But the DEIS misleads the reader, referring to different geographic areas depending on whether the analysis relates to population and economic growth, or transportation infrastructure. For example, the DEIS reports

² N.C.G.S. 136-176(b2) (effective July 1, 2010).

13 that between 2000 and 2008, “the number of residences in southern Gaston County and western Mecklenburg County has increased approximately 24 percent.” [1-2] But most of this growth occurred within Mecklenburg County. Gaston County actually grew at a slower rate than the state as a whole during this period—an estimated 8.5% between 2000 and 2008 compared to 14.6% for the state as a whole.³

Moreover, most of this slower-than-average growth occurred outside of the project area, a fact that the DEIS mischaracterizes. The DEIS cites the *Gaston County Comprehensive Plan* to support its claim that “[p]lanned growth in southern Gaston County will result in an increased need for east-west mobility,” noting that “the population grew fastest between 1990 and 2000 in the Southeast Small Area [of Gaston County], accounting for approximately 58 percent (8,947 persons) of the population growth in Gaston County from 1990 to 2000.” [1-18] In light of this rapid growth in southeast Gaston County, it seems puzzling that “none” of Gaston County’s four bridges over the Catawba River “are in southern Gaston County.” [1-9] But the DEIS fails to point out that its definition of “southern Gaston County” does not include all of “southeast Gaston County”. As Figure 1-6 shows, the “Southeast Small Area” defined in the *Comprehensive Plan* includes the US 29-74 and I-85 corridors, and indeed, “most of the population growth in Gaston County” occurred in this corridor, in towns like Belmont and Cramerton, well north of the proposed project area. [1-18]

14 Given the DEIS’s emphasis on connecting “southern Gaston County,” the Transportation Agencies should give the reader a precise definition of that area’s borders. They should make consistent references to the area in question, particularly with respect to economic and population growth on the one hand, and the area’s transportation facilities on the other. In reporting that “none” of the county’s four bridges “are in southern Gaston County,” [1-9] the DEIS implies that “southern Gaston County” lies below the US 29-74 corridor, but the DEIS presents no population or economic growth data for this area. A better approach would be to adopt the Gaston County planners’ definition of “southern Gaston County”—a combination of the southeast and southwest Gaston County “Small Areas”—in order to assess what kinds of transportation facilities may be needed to accommodate population and economic growth in that same area. Notably, according to the Gaston County planners’ definition, “southern Gaston County” includes much of US 29-74 and I-85, including where they cross the Catawba River, and so the DEIS should consider reducing congestion on these routes as a means of connecting southern Gaston County and western Mecklenburg County.

As it is currently presented in the DEIS, the purported need to address “Poor Connectivity Between Gaston County and Mecklenburg County and Within Southern Gaston County” is not coherently defined and the project’s ability to meet this need better than other alternatives is unsupported by any quantifiable data. This muddled analysis does not allow the public to meaningfully evaluate this project against a range of reasonable alternatives, as required by NEPA.

³ See U.S. Census Bureau, “Gaston County Quick Facts,” available at <http://quickfacts.census.gov/qfd/states/37/37071.htm>

B. Inflated Traffic Projections

15 In addition to connectivity, the DEIS articulates a second need for this project: congestion on the project area’s major roadways.⁴ The DEIS presents traffic forecasts that exaggerate the level of traffic congestion on I-85, US 29-74, and US 321, making the need for improvements seem urgent. Ironically, as discussed in Section III, the DEIS’s Alternatives Analysis demonstrates that the Gaston East-West Connector would actually increase traffic volumes and congestion along much of these roadways. But the DEIS interprets that data to support its claim that a new location toll highway “improves traffic flow and some levels of service on I-85, US 29-74, and US 321.” This interpretation does not withstand scrutiny.

The DEIS Purpose and Need Section presents four tables with “Existing and Projected Traffic Volumes and Levels of Service” for I-85, US 29-74, US 321, and I-485. The “existing” traffic volumes are for the year 2006, yet their source is not the NCDOT Traffic Survey Group, which observes the traffic on these roadways at least biannually with the aid of 40,000 Portable Traffic Count (PTC) Stations. Rather the DEIS cites a consultant’s report, the *Gaston East-West Connector (U-3321) Traffic Forecasts for Toll Alternatives* (Martin / Alexiou / Bryson, August 2008). Despite having authored these “forecasts” in 2008, the consultants who produced them apparently did not take the opportunity to verify the accuracy of their forecasts against the observations of NCDOT’s Traffic Survey Group. Had they done so, they would have found that they have inflated virtually every estimate of “existing” traffic levels in 2006, in some cases more than doubling the actual traffic that was contemporaneously observed on these roadways.

The following table compares a few of the DEIS “existing” traffic estimates with data from the NCDOT’s Traffic Survey Group.

16

US 29-74 Segment				
From	To	DEIS 2006 Projection	Actual Observed Volume (2006)	Discrepancy
Lakewood Rd	NC 273 (Park Street)	33,600	17,000	16,600
NC 273 (Park St)	NC 7 (Catawba St)	43,700	20,000	23,700

US 321 Segment				
From	To	DEIS 2006 Projection	Actual Observed Volume (2006)	Discrepancy
W Airline Ave	W Rankin Ave	21,400	8,300	13,100
Forbes Rd	Crowders Creek Rd	13,500	11,000	2,500

⁴ As discussed *supra* note 1, the Turnpike Authority may have disclaimed this project purpose. Whatever the intent of the Turnpike Authority, these comments address the representations made in the DEIS and whether the DEIS complies with NEPA and CWA § 404.

I-85 Segment				
From	To	DEIS 2006 Projection	Actual Observed Volume (2007) ⁵	Discrepancy
Exit 17	Exit 19 - NC 7 (Ozark Ave)	97,400	96,000	1,400
Exit 19	Exit 20 - NC 279 (New Hope Rd)	109,600	102,000	7,600
Exit 20	Exit 21 - Cox Rd (SR 2200)	111,200	106,000	5,200
Exit 26	Exit 27 - NC 273 (Park Street)	126,800	117,000	9,800

As the table shows, the discrepancies between these figures are in the tens of thousands. In the case of traffic along US 29-74 between Park and Catawba streets, the DEIS more than doubles the actual volume observed. The DEIS fairly consistently overestimates the “existing” traffic volume along each of the “free existing alternate routes” in the project area. For the I-485 outer loop that the Gaston East-West Connector would feed into, however, the DEIS significantly underestimates traffic volumes. The Transportation Agency thus avoids addressing the legitimate concern that traffic exiting the toll road will overwhelm the existing capacity on the city’s outer loop.

I-485 Segment				
From	To	DEIS 2006 Projection	Actual Observed Volume (2007) ⁵	Discrepancy
Exit 4 (NC 160)	Exit 9 (US 29-74)	52,000	59,000	-7,000

Such inaccurate traffic forecasts threaten to mislead the public regarding the traffic congestion on these roadways and the viability of proposed solutions. They also undermine confidence in the NEPA process. Indeed, the Transportation Agencies’ lax oversight of this “existing” traffic data casts serious doubt upon the legitimacy of the long-term projections presented in the DEIS. If the Transportation Agencies cannot calibrate estimates of existing traffic volumes with NCDOT’s own observations, it seems unlikely that they have rigorously assessed the baseline assumptions that produce the grim 2030 traffic volume estimates presented in the DEIS. Not surprisingly, these future estimates also appear to grossly inflate traffic volumes. For example, between Exit 26 and Exit 27 (Sam Wilson Road) on I-85, Table 1-2 of the DEIS predicts that traffic volumes will increase over 40%, or more than 50,000 cars and trucks daily, even though the DEIS reports, erroneously, that that section of I-85 currently operates at the worst possible

⁵ See NCDOT Traffic Survey Group, AADT Traffic Volume Maps (2007 Spreadsheet) available at: http://www.ncdot.org/doh/PRECONSTRUCT/apb/traffic_survey/. For interstate highways such as I-85, the Traffic Survey Group collects volumes on an annual basis and 2007 volumes were included in the spreadsheet available on the NCDOT website. It should be noted that in October of 2007, overall traffic volumes began to decrease in North Carolina, mirroring a nationwide downward trend in driving. Earlier in the year, however, traffic volumes in the state rose, and so one would expect similar or even greater discrepancies between the DEIS projections and observed traffic volumes on I-85 for 2006. More recently, high gasoline prices and the economic slowdown have contributed to further traffic volume decreases. See Federal Highway Administration, *Traffic Volume Trends*, available at <http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm>

⁶ See *id.*

16 level of congestion. Just as the DEIS overestimates the number of cars traveling on major roadways in the project area today, it underestimates the deterrence effect that congestion on these roadways will have on travel demand in the future.

C. Suggested Statement of Purpose and Need

17 The Transportation Agencies should issue a new DEIS that contains a clear and unbiased statement of the purpose and need for this project in order to ensure consideration of a reasonable range of alternatives, and the eventual identification of the least damaging practicable alternative. The project purpose should be stated neutrally and without an artificial level of specificity, such as by defining “southern Gaston County” as the land immediately adjacent to the proposed corridor for the Project. In this situation, with the proposed project having to comply with both NEPA and Section 404 of the CWA, it is even more important that the basic project purpose be properly articulated so as not to artificially constrain the Corps from exercising independent judgment in identifying the basic purpose of the project and using it as the touchstone for evaluating the feasibility of the various potential alternatives.

As discussed previously, the Agencies have identified the need “to improve mobility . . . within southern Gaston County and between southern Gaston County and western Mecklenburg County” and the need “to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area.” [1-3] SELC suggests that a statement of the project’s purpose focus on the enhancement of mobility in a project area that includes the I-85 and US 29-74 corridors, i.e. “southern Gaston County” as defined by the Gaston County planners. A further refined statement of project purpose might be drafted as follows:

“To provide increased mobility to serve residents, businesses, and tourists traveling in or through southern Gaston County and western Mecklenburg County in a manner that protects the environment, provides economic opportunity, and preserves the historic and social setting of the affected region.”

18 Such a project purpose would not foreclose the consideration in the EIS and the 404/401 permitting process of other solutions for addressing mobility in the area that do not involve the construction of a toll highway. In its current form, the DEIS “Purpose and Needs” section demonstrates that the North Carolina Turnpike Authority cannot reconcile its narrow mandate to build specific toll road projects with federal law. It also underscores North Carolina’s need for an objective, transparent system to prioritize transportation spending based on performance-based criteria.

IV. ALTERNATIVES ANALYSIS

1. The Proposed Alternatives

19 The DEIS Summary pursues only a cursory examination of all but one alternative: building a toll road in what might be coined "southern-southern Gaston County." Practical alternatives to the Project—upgrading the existing road network, installing HOV lanes on I-85, expanding mass transit, improving freight rail facilities, or any combination of these measures—are excluded because they would not fulfill the need for "connectivity within southern Gaston County" and "between southern Gaston County and western Mecklenburg County." [2-6, 2-7, 2-8, 2-9, 2-10, 2-16] All of the remaining "detailed study alternatives" are slight route variations for a new location toll road, and the bulk of the DEIS alternatives analysis compares the costs and impacts associated with these various alignments of what is essentially a single alternative.

2. Regulatory Framework

20 The consideration of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. A highway project DEIS "should consider all possible alternatives to the proposed freeway, including changes in design, changes in the route, different systems of transportation and even abandonment of the project entirely." *Keith v. Volpe*, 352 F. Supp. 1324, 1336 (D. Cal. 1972). The central consideration is whether the functional alternative will actually meet the project's goals, thereby making it reasonable to consider. "Each alternative should be presented as thoroughly as the one proposed by the agency, each given the same weight so as to allow a reasonable reviewer a fair opportunity to choose between the alternatives." *Rankin v. Coleman*, 394 F. Supp. 647, 659 (E.D.N.C. 1974) By dismissing functional alternatives without thorough review, the Gaston East-West Connector DEIS falls far short of meeting this required legal standard.

3. Deficiencies in the Analysis of Alternatives Section

21 In several critical ways, the analysis of alternatives in the DEIS is deficient. First, the alternatives analysis improperly narrows the range of alternatives to a new location highway south of the US 29-74 corridor. Second, the alternatives analysis proceeds on the basis of almost no objective, quantifiable data, failing to present even the results of existing studies of transportation in the corridor. Third, the alternatives analysis mischaracterizes how a new location toll road will impact traffic congestion along existing major roadways in the area. Fourth, the alternatives analysis presents an incomplete picture of the costs associated with various alternatives. Fifth, the alternatives analysis fails to adequately examine the impact of tolling on minority and low-income populations in the project area, or to compare how alternatives to the toll road would affect these residents.

A. Alternatives to Connecting the Area Adjacent to the Toll Road Corridor

The DEIS does not analyze reasonable alternatives to the proposed action. Rather, it summarily rejects them because they do not comply with the project "purpose" of connecting "southern Gaston County," however that geographic area is defined, to Mecklenburg County:

Designating "HOV lanes" on I-85 "would not improve mobility, access, or connectivity within southern Gaston County nor between southern Gaston County and western Mecklenburg County." [2-7]

Intersection and ramp improvements on I-85, US 29-74 and US 321 "would not noticeably improve mobility, access, or connectivity within southern Gaston County, nor between southern Gaston County and western Mecklenburg County."

22 Widening the major roadways in the area "would not improve east-west connectivity or mobility within southern Gaston County or between southern Gaston County and western Mecklenburg County. [2-16]

As the DEIS explains, "[s]outh of US 29-74, there are no continuous east-west roadways in the southern half of Gaston County," [2-18] and apparently, such a roadway is critical to the oft-cited "connectivity" needed in "southern Gaston County." Only the "No Build" or "no action" alternative to the proposed toll road receives any detailed examination within the DEIS. Almost every other alternative is eliminated because it does not "connect" the ill-defined area of "southern Gaston County." The exception is the "new location mass transit" alternative, which would provide the needed connectivity but which is "not financially feasible" in part because it "would be ill-suited to the dispersed low-density land uses in southern Gaston County," unlike a toll road. [2-10] In other words, not enough people live in "southern Gaston County" to justify transit, but a \$1.3 billion toll road would somehow be cost-effective.

The DEIS thus rejects all reasonable alternatives to the proposed toll road on the basis that they do not connect the immediate area surrounding the proposed location of the toll road, even though relatively few people live there. The bulk of the alternatives analysis concerns where exactly in "southern Gaston County" to put the toll road. The DEIS must do more than compare slightly varied routes of the same basic design concept.

B. No Objective Evaluation Based on Empirical Data

23 The DEIS does not support its recommended alternative with hard data comparing it to any alternative. Although the DEIS declines to mention it, this lack of analytical rigor motivated several of the resource agencies to abstain during the merger process.⁷ The Transportation

⁷ See, e.g., Letter from Heinz J. Mueller, EPA to Kristina Solberg, NCDOT re: Written Brief to Merger 01 Process Review Board: NCDOT Elevation Process for TIP Number U-3321, Gaston East-West Corridor Study (Sept. 27,

23 Agencies have since persuaded EPA, FWS and NCWRC to participate in the context of Turnpike Environmental Agency Coordination (TEAC) meetings. But the resource agencies' objections to the flimsy analysis in the DEIS remain as applicable as ever.

24 For example, in its 2004 "notice of elevation," EPA pointed out that NCDOT's environmental analysis of the "Mass Transit Alternative" was "cursory, not supported by coordinated planning studies and not fully accurate."⁸ This does not appear to have changed. The DEIS concludes that neither expanded bus service nor rail service "would attract enough trips to noticeably reduce vehicle miles traveled and/or congested vehicle miles traveled in Gaston County compared to the No-Build Alternative, nor would travel times or distances noticeably improve." [2-9] But the *Gastonia Rapid Transit Alternatives Study: Corridor and Modal Options* suggests that transit could relieve congestion on I-85 and US 29-74, if combined with proper land use incentives. According to the study, "timely action to encourage transit-oriented development along a selected alignment can serve to stimulate development and redevelopment along desired lines as well as provide more ridership for the rapid transit service, thereby decreasing congestion in the corridor."⁹ The DEIS, however, provides no forecasts of traffic volumes along I-85 and other major roadways for the "Mass Transit" or "Multimodal" alternatives.

25 Similarly, the DEIS includes a "Multimodal Alternative" that purports to analyze the combined efficacy of mass transit and existing roadway improvements. The DEIS explains that such an alternative "could be defined to include expanded bus or rail service that uses existing roadways, together with either TSM improvements or improvements to existing roadways." But without further defining or examining the "Multimodal Alternative," the DEIS concludes:

25 These potential combinations of roadway and transit improvements . . . would not attract enough trips to noticeably reduce vehicle miles traveled and/or congested vehicle miles traveled in Gaston County compared to the No-Build Alternative, nor would they provide a facility with an acceptable level of service because they would not attract enough trips to change the poor levels of service projected to occur on I-85 and other area roadways under the TSM Alternative or Improve Existing Roadways Alternatives. Travel times and distances also would not noticeably improve.

As with the mass transit section, the DEIS does not provide any further specification or explanation as to how it arrives at this verdict. And the DEIS does not even mention the

2004) ("EPA is convinced that a combination of potential improvements to the existing failing facilities (I-85 and US 29/74) along with other possible system improvements is a feasible alternative worthy of further consideration . . . However, NCDOT has not conducted even a cursory environmental analysis for the other 'No-Build Alternatives.'"); Letter from Heinz J. Mueller, EPA to Jennifer Harris, NCTA re: Agency Scoping Comments Gaston East-West Connector Toll Project; From I-85 to Charlotte Outer Loop Gaston and Mecklenburg Counties; TIP Project Number U-3321 (March 1, 2007).

⁸ See *id.*
⁹ PBS&J, *Gastonia Rapid Transit Alternatives Study: Corridor and Modal Options* (December 2005) at 5-11 (emphasis added).

25 possibility of freight rail capacity upgrades, which could take truck traffic off of I-85 and other major arterials, thereby reducing the state's highway maintenance and repair expenses, reducing congestion and making automobile travel on area roads safer and more enjoyable.

26 In general, the DEIS adopts a cut and paste approach to the alternatives analysis. Its discussions of the "transportation demand management" or "TDM alternative," the "transportation supply management" or "TSM alternative," the "Mass Transit Alternative," and the "Multi-Modal Alternative," bear a disturbing similarity to a generic discussion of these same "alternatives" for other North Carolina Turnpike Authority projects.¹⁰ These discussions follow the same basic pattern of "analysis." With the exception of a new location metro line through "southern Gaston County," which "would not be financially feasible," [2-8] the DEIS defines project "alternatives" as sets of insignificant half-measures that will yield only "minimal" benefits in the face of the overwhelming traffic volumes predicted to occur. As discussed previously in Section III, the DEIS traffic volume estimates lack credibility and strain credulity. And in light of the *Gastonia Rapid Transit Alternatives* study, the DEIS should explain how the Transportation Agencies determined that the benefits of these alternatives, alone or in combination, are "minimal."

C. The Project's Impact on Congestion

27 According to the DEIS,¹¹ one of the two purposes of this project is "to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area." [1-3] According to the DEIS, "[t]raffic operations would improve on I-85 and on segments of US 29-74 with the New Location [toll road] Alternative . . . compared to the No-Build Alternative, since there would be less traffic on I-85 and US 29-74 (Appendix C, Table C-2)." [2-21] But Appendix C shows that traffic would *increase* along much if not most of the length of I-85, US 29-74, and US 321 under the toll road alternative.

28 Specifically, Tables C-2 and C-3 show that the toll road would cause 2030 traffic volumes to increase to the west of Cox Road along I-85, and to the west of South Main Street along US 29-74, compared to the No Build Alternative. To the east of these midpoints, however, traffic volumes are projected to be lower under the toll road scenario. This creates the impression that some drivers will use I-85 and US 29-74 in the west of Gaston County and switch to the toll road as they near Charlotte or the airport. But traffic volumes along US 321, the main north-south arterial in the project area, are not projected to have a corresponding

¹⁰ See, e.g., Monroe Connector/Bypass Draft Environmental Impact Statement available at www.ncturnpike.org; "Mid-Currituck Bridge: Alternatives Screening Report," available at www.ncturnpike.org.

¹¹ As discussed *supra* note 1, a Turnpike Authority representative appears to have suggested that the project purpose no longer includes alleviation of congestion on area roadways.

28 increase.¹² The DEIS never explains the curious commuting patterns, and accompanying development, that its traffic forecasts suggest.

29 The DEIS asserts that the traffic models “demonstrate a reduction in congested travel” for the toll road, [2-21] by which it apparently means the number of miles driven in “LOS F” conditions will be less than under the No-Build scenario.¹³ But even under this narrow definition of “congestion relief,” conditions would be virtually the same under the “No Build” and toll road scenarios—with the toll road reducing “congested VMT” by only around one half of one percent. On the other hand, employing the Transportation Agencies’ own “level of service” descriptor, the toll road appears to worsen congestion compared to the “No Build” scenario. According to Table C-2, only a single segment of I-85 would experience a better level of service (LOS E rather than LOS F) under the toll road scenario. Even this one service improvement, however, would result from added capacity on I-85 to facilitate an intersection with the planned toll road, not from a change in traffic volumes, which would increase. The remainder of I-85 headed in to Charlotte is projected to operate at LOS F whether the toll road is built or not.

30 Along US 29-74, the toll road would unambiguously worsen the level of service. Table C-3 lists the projected levels of service along twenty-three segments of US 29-74. At four of these segments, the level of service will be one to two grades lower under the “New Location Alternative Toll Scenario” compared to the “No-Build Alternative.” For example, US 29-74 from Thomas St. to NC 279 would operate at LOS-C under the No-Build alternative, and LOS-D under the toll road scenario. Just east of Sparrow Springs Road, LOS D conditions would prevail under the No-Build alternative, but this would slide to LOS F under the toll road scenario. Along the other nineteen segments of US 29-74, the level of service would be the same under the No-Build and toll road scenarios—mostly LOS F.

31 The DEIS Appendix C does not present traffic data for US 321. It nonetheless concludes that “[l]evels of service along US 321 are similar for all evaluated alternatives.” [C-9] No data supports this conclusion. A one-page handout that the Turnpike Authority distributed at public meetings and posted on its website indicates that levels of service along the segment of US 321 between I-85 and US 29-74 would worsen under the toll road scenario, reaching capacity, but otherwise US 321 would remain “under capacity” regardless of whether the toll road is built.

32 The DEIS traffic forecasts deserve little credence, but even accepting their predictions, the Gaston East-West Connector would at best have no positive impact on traffic congestion in the area. The DEIS traffic forecasts show that a new location alternative would worsen the level of service at which much of I-85, US 29-74 and US 321 operate in the project area. The

¹² This information is not included in the DEIS or Appendix C but rather a handout that the Turnpike Authority distributed at public hearings and posted on its website: <http://www.ncturnpike.org/projects/gaston/deis.asp>.
¹³ Neither the DEIS nor Appendix C define “Congested VMT” but a table in Appendix 8 of *Gaston East-West Connector Traffic Forecasts for Toll Alternatives* (Martin/Alexiou/Bryson, August 2008) refers to “Congested VMT and VHT (where Volume over Capacity >=1).”

32 forecasts show that “congested VMT” would decline by less than one percent. The DEIS cannot claim, on the basis of this data, that the project would meet its identified need “to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area.” [1-3] The Transportation Agencies should acknowledge this in a revised DEIS that evaluates a reasonable range of alternatives to address identified transportation needs.

D. A Complete Presentation of Costs

33 Just as the DEIS gives commuters and residents little insight into how much this project will improve mobility compared to reasonable alternatives, it gives taxpayers only the dimmest notion of how this project’s cost compares to that of potential reasonable alternatives. The DEIS presents no cost information about upgrades to existing highway, rail, and transit facilities. And the DEIS mischaracterizes the revenue potential of tolling, glossing over the substantial public funding that the Project would require. As a result, the DEIS leaves the reader ill-equipped to judge whether the Gaston East-West Connector is a sound investment of public funds or a boondoggle.

Even under the Turnpike Authority’s most optimistic forecast of toll revenues, the Project will require several hundred million dollars of public funding. The DEIS should therefore analyze potential alternatives with this magnitude as a reference point, including those that carry similar actual price tags.

E. Environmental Justice

34 Executive Order 12898 mandates “identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects . . . on minority populations and low-income populations.”¹⁴ Tolling will clearly have a disproportionate impact on low-income residents in the project area, and the DEIS should identify and address these effects.

Instead, the DEIS reasons that there is “no potential for disproportionately high and adverse impact,” [3-25] on minority and low-income communities because they will be able to use I-85, US 29-74 and the other existing free alternative routes to the toll road. The DEIS discussion of Environmental Justice intimates that the toll road will benefit even those who cannot afford to travel on it because “the DSAs would be diverting traffic from the existing routes.” [3-26] The DEIS traffic forecasts, however, show that much of the existing roadways would operate at LOS F with the toll road, and that the toll road would actually increase traffic volumes along much of I-85 and US 29-74.

35 Similarly, the DEIS claims that the project has “no potential” to negatively affect transit service in the project area, but this ignores the link between land use and transportation planning.

¹⁴ Executive Order on Environmental Justice, Exec. Order No. 12898, 59 Fed. Reg. 7629 (1994).

35 As the *Gastonia Rapid Transit Alternatives Study* points out, a successful transit program hinges on “timely action to encourage transit-oriented development along a selected alignment.”¹⁵ The Gaston East-West Connector would encourage low density, auto-dependent development that would undermine any concentration of development along a transit corridor to the north. As a result, the mobility of residents in the project area who lack access to a privately owned automobile would decline as a result of this project being built.

36 The DEIS leaves no doubt that the proposed action will not improve the mobility of some residents in the project area. Clearly there is a need to minimize the number of people for whom this is true in order to realize the fullest overall improvement in mobility. The DEIS recognizes no such need, however, nor does it discuss any goals or measures to address it. A revised DEIS should address these issues in order to comply with Executive Order 12898 and NEPA.

V. AIR QUALITY EFFECTS

1. Criteria Pollutants

A. Ozone

i. The Regulatory Framework

The Clean Air Act, 42 U.S.C. § 7401 et seq., establishes air quality standards for particular air pollutants, called National Ambient Air Quality Standards (NAAQS). If a region fails to comply with these requirements, the region is classified as “non-attainment” under the Clean Air Act. The Charlotte area, including Gaston County, has been designated as a “Moderate Non-Attainment Area” for ozone, and it will likely soon “bump up” to a “Serious Non-Attainment Area” designation for failing to meet a 2010 deadline to address its air pollution problem. The North Carolina Department of Air Quality (“NCDAQ”) estimates that “on-road” motor vehicle emissions account for about 55% of all ozone-causing emissions in Mecklenburg County.

ii. The DEIS’ Consideration of Ozone

37 The DEIS reports that EPA effectively disapproved the State Implementation Plan “SIP” submission for Charlotte, causing NCDAQ to preemptively withdraw it. The DEIS explains that EPA’s subsequent “finding of failure to submit” a SIP could result in highway sanctions if NCDAQ does not submit an appropriate plan within 24 months, although it adds that such sanctions are “unlikely,” as the State may simply “bump up” to “serious” nonattainment status instead. At no point does the DEIS address the cost or health implications of the serious nonattainment designation. Nor does the DEIS address how this project would affect the region’s efforts to meet the requirements that would be triggered by that designation. The DEIS

¹⁵ PBS&J. *Gastonia Rapid Transit Alternatives Study: Corridor and Modal Options* (December 2005) at 5-11.

37 treats the Charlotte area’s smog as if it were completely divorced from major transportation decisions such as the one that this DEIS purports to analyze.

As the existing nonattainment designation suggests, dangerous levels of ozone smog already impact the health and well-being of Charlotte area residents. Public health experts have estimated that air pollution in North Carolina kills 50 infants, causes 1500 emergency room visits for childhood asthma, triggers 100,000 asthma attacks and results in 300,000 missed school days each year. The American Lung Association’s 2009 “State of the Air” report ranks Charlotte as the 8th most polluted city in the country, even worse than the year before. Charlotte’s smoggy air seriously affects residents’ quality of life, and without a serious effort to address the sources of the smog, it will continue to do so. Although EPA recently revised the ozone standard downward to .75 ppm, members of the agency’s scientific advisory committee unanimously agree that “the new primary ozone standard” is not “sufficiently protective of public health,” and should be as low as .6 ppm. Charlotte has yet to comply with the old standard of .84 ppm.

38 While it is true that the Charlotte metro region may avoid federal highway sanctions, it will face significant additional compliance requirements as a “serious” nonattainment area¹⁶ that will affect transportation planning. Although the “bump up”¹⁷ from moderate to serious will extend the attainment deadline to June 15, 2012, it will also trigger additional mandatory control measures. It will require Charlotte to demonstrate a reduction in its baseline emissions by at least 3 percent per year until the attainment date.¹⁸ It will require enhanced vehicle emissions inspection programs, and emissions offset requirements for new industry.¹⁹ And it will raise the specter of an involuntary bump-up to a “severe” nonattainment designation if air quality does not improve fast enough in the region. In addition to its further stigma, a “severe” nonattainment designation would require Charlotte area planners to adopt, among other costly abatement strategies, “specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles traveled.”²⁰ In other words, strategies would have to be developed to compel residents in other parts of the region to drive less to offset the increase in VMT generated by the Gaston East-West Connector.

39 The Charlotte area’s smog problem is not going to go away anytime soon. As the DEIS Air Quality Technical Memorandum acknowledges, the 2007 eight-hour ozone design values measured in Mecklenburg County was .93 ppm, the highest since the 2004 designation year. State authorities have yet to hatch a viable plan for bringing emissions into compliance with the old standard by the 2010 deadline, even without accounting for the Gaston East-West Connector. The new, more stringent standard will require significant reductions in the emission

¹⁶ See, e.g., 42 U.S.C. § 7511a(d) (compliance requirements for “serious” nonattainment areas); compare with 42 U.S.C. § 7511a(c) (compliance requirements for “moderate” nonattainment areas).

¹⁷ See 42 U.S.C. § 7511(b)(3).

¹⁸ See 42 U.S.C. § 7511a(c)(B) et seq.

¹⁹ *Id.* at § 7511a(c)(3) & (10).

²⁰ *Id.*

of ozone precursors by 2016. Construction of a 22-mile, twelve intersection, 4-lane toll highway from the urban fringe through rural Gaston County would cause a significant increase in these emissions. The DEIS fails to even acknowledge this impact, much less compare the benefit of adopting an alternative that would help to solve the region's ozone problem rather than exacerbate it.

B. Particulate Matter

The emission of fine particulate matter, also known as PM2.5, is subject to a regulatory regime similar to the one governing ozone. Technically, the project area is in attainment for PM2.5, but as the Air Quality Technical Memorandum to the DEIS discloses: "In 2007, the annual value for the region was 14.9 µg/m3, just under the annual standard of 15 µg/m3. [at 14] The DEIS fails to mention, however, that prior to the issuance of the DEIS, the D.C. Circuit remanded the PM2.5 standard to EPA, agreeing with environmental and other public interest groups that the agency "failed adequately to explain why, in view of the risks posed by short-term exposures and the evidence of morbidity resulting from long-term exposures, its annual standard is sufficient to protect the public health [with] an adequate margin of safety." *American Farm Bureau v. EPA*, No. 06-1410 (D.C. Cir. February 24, 2009), at 14.

Based on the Obama administration's pledge to rely on "sound science" and public health experts' previous endorsements of a lower PM2.5 standard, the Charlotte metro area appears likely to slip into nonattainment. This Project will make it more difficult for Charlotte to meet a new, more stringent standard. The DEIS should detail the likely contribution of the Project, especially truck traffic, to regional PM2.5 pollution, based on transparent, objectively verifiable traffic forecasting. It should also explain how designation of metro Charlotte as a nonattainment area for PM2.5 may affect the viability of the Gaston East-West Connector, and explore alternatives that substantially decrease, rather than increase, PM2.5 emissions in the region.

2. Federal-Aid Highway Act Section 109: Air Toxics

Section 109(h) of the Federal-Aid Highway Act, 23 U.S.C. § 101 et seq., requires a three-step evaluation of air quality impacts and mitigation measures to ensure that "final decisions on the project are made in the best overall public interest." 23 U.S.C. § 109(h); 23 C.F.R. 771.105(b). The first step is to determine the "possible adverse economic, social and environmental effect relating to any proposed project." *Id.* Second, the "costs of eliminating or minimizing such adverse effects," including air pollution, must be determined. *Id.* Third, the project must be determined to be "in the best overall public interest." *Id.* FHWA's implementing regulations for this section require that any measures necessary to mitigate these adverse effects be incorporated into the project. 23 C.F.R. § 771.105(d).

The Clean Air Act authorizes EPA to regulate emissions of toxic air pollutants emitted by motor vehicles that are associated with significant adverse health effects, known as mobile source air toxics (MSAT). 42 U.S.C. § 7521(l). Unlike carbon monoxide and ozone, MSATs are

not regulated under the NAAQS program of the Clean Air Act as criteria pollutants. MSATs are nonetheless recognized to have adverse environmental and health effects, so they must be considered by the Agencies under Section 109(h) of the Federal-Aid Highway Act. In fact, the Section 109(h) analysis is expressly required by FHWA regulations as part of the NEPA analysis. 23 C.F.R. § 771.101.

The DEIS makes no mention of Section 109(h) or its implementing regulations. Section 4.2.5.2 of the DEIS primarily disclaims responsibility for analyzing MSATs, explaining that "while much work has been done to assess the overall health risk of air toxics, many questions remain unanswered." It goes on to mention that, in any event, "USEPA has not established regulatory concentration targets" for MSATs. Neither the brief treatment of air toxics within the DEIS, nor the attached "qualitative analysis of MSATs" at Appendix H, addresses mitigation measures to reduce the emission of air pollutants, contrary to the requirements of Section 109(h). The Air Quality Technical Memorandum advances the dubious rationale that while "it is expected there would be slightly higher MSAT emissions in the immediate area of the project, relative to the No-Build Alternative . . . current tools and science are not adequate to quantify them," [at 26] or apparently to provide any information other than a hopeful assessment that "EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions" in MSATs.

This optimistic analysis fails to provide the basis for a meaningful assessment of this project's environmental impacts, as required by NEPA. The DEIS should catalogue the schools, hospitals, public parks and other locations in the project area where sensitive populations would likely suffer exposure to MSAT generated by the toll road. The DEIS should estimate the likely emissions exposures at these locations using accepted testing methods, relate these estimates to the findings in contemporary, peer-reviewed health studies of MSAT exposures, and discuss specific mitigation measures that could safeguard the identified sensitive populations. Finally, the DEIS should compare these costs with those associated with a plausible alternative that does not involve a new-location toll road, such as upgrades to existing highway, transit, and freight rail facilities in the area.

A. Consideration of Non-Priority MSATs

The range of air pollutants considered by the DEIS is also inadequate. Section 109 requires the consideration of "possible" adverse environmental effects, including air pollution. 23 U.S.C. § 109. This analysis requires "the gathering and evaluation of evidence on potential pollution hazards." *D.C. Fed'n of Civic Ass'ns v. Volpe*, 459 F.2d 1231, 1242 (D.C. Cir. 1971). The DEIS's limited analysis of air pollutants only addresses the NAAQS criteria air pollutants and those listed as "priority" MSATs. Section 109 of the Federal Aid Highway Act, however, requires analysis of more than just these pollutants.

43 EPA's MSAT list includes 21 air pollutants from motor vehicles that are known or suspected to cause cancer or other serious health effects. 66 F.R. 17230 (March 29, 2001). The qualitative analysis cited by the DEIS only examines a subset of this list: the six MSATs designated by EPA as priority MSATs. (4.2.3, Exhibit 4-1). The remaining 15 MSATs are known to have adverse health effects and are known to be emitted from mobile sources, but are not included in the DEIS's air pollution analysis. Likewise, EPA has promulgated a list of 33 Urban Hazardous Air Pollutants (Urban HAPs), which are judged to pose the greatest potential threat to public health in the largest number of urban areas." 64 F.R. 38706, 38715 (July 19, 1999). "[M]obile sources are an important contributor to the urban air toxics problem." *Id.* A number of the non-priority MSATs are also included the Urban HAP list. The inclusion of an air pollutant on the MSAT list and/or the Urban HAP list creates a strong presumption that the pollutant is known to have adverse health and environmental effects, and therefore requires consideration by the Agencies under Section 109(h).

44 Given the clear link between the MSATs in vehicle exhaust and health impacts, the question is not whether construction of the Gaston East-West Connector—including the massive I-485 interchange that will encroach upon Berewick District Park—will have negative health repercussions for those who live nearby. The question is how accurately these health impacts can be predicted. The Agencies may not have a computer model specifically designed for this task and there may be limits on how accurately the health impacts in this area can be predicted. But the purpose of NEPA is to force Agencies to consider and disclose the reasonably foreseeable consequences of their actions; the DEIS focuses instead on justifying its failure to consider these consequences. The Agencies must model the health impacts of the increased MSAT exposure to the extent practicable as evidenced by "theoretical approaches or research methods generally accepted in the scientific community." Failure to do so violates Section 109(h) of the Federal-Aid Highway Act.

VI. GREENHOUSE GAS EMISSIONS

45 The DEIS traffic forecast predicts that construction of the Gaston East-West Connector will cause VMT in Gaston County to increase by around eleven percent compared to the No Build Alternative. Accepting this forecast, the Gaston East-West Connector would generate tens of thousands of tons of greenhouse gas (GHG) emissions each year. The DEIS ignores these emissions. This failure to even acknowledge GHG emissions is at odds with current environmental planning practices across the nation. For a project of this scale, the Agencies must consider GHG emissions impacts and mitigation strategies. Failure to address this significant environmental impact is a violation of NEPA. Especially for a toll road project that relies on increasing vehicle travel to generate sufficient revenue to finance the project, it is essential that issues related to GHG emissions be disclosed and evaluated.

Efforts to reduce GHG emissions must involve transportation. In its final report, the North Carolina Climate Action Plan Advisory Group estimates that the transportation sector

accounts for 29% of the State's current GHG emissions. The Group's report "recommends that the State work with its constituents to shift passenger transportation mode choice to lower emitting choices," such as transit or rail instead of driving privately owned vehicles. The report also recommends that the State take steps to better integrate land use planning and transportation, and that it invest more in transit.

46 Construction of the Gaston East-West Connector would undermine all of these recommendations. The Project threatens to explode the western footprint of the Charlotte metro area, open up vast rural areas to sprawl development, cripple the development of transit in Gaston and western Mecklenburg counties, and gobble up public funding that might otherwise finance alternative transportation improvements for decades to come. As the DEIS acknowledges, the Gaston East-West Connector will induce millions of miles of additional vehicle travel each year, creating tens of thousands of tons of GHG pollutants. Therefore, the Project rises above the "significance" threshold established under other existing regulatory regimes. And recent case law trends indicate that a 22-mile, four-lane, new location toll way should satisfy any threshold for significance in judicial review under NEPA. *See, e.g., Laidlaw Energy v. Town of Ellicottville*, Case No. 1659 CA 08-01183 (N.Y. App. Ct. Feb. 6, 2009) (upholding decision to deny a land use approval under the State Environmental Quality Review Act due to concern over carbon emissions and findings that a proposed biomass cogeneration facility would cause "serious increases in harmful emissions" that would result in an "unacceptable adverse impact"); *Coalition for Environmental Integrity in Yucca Valley v. Wal-Mart*, Case No. CIVBS 810232 (Cal. Sup. Ct. May 14, 2009) (holding that state environmental planning documents for Wal-Mart supercenter had to "consider the entire GHG emission output of the Project").

1. Federal Climate Change Regulation

The link between emissions of greenhouse gases (GHGs) and climate change is no longer subject to scientific dispute. When GHGs are released into the atmosphere they act like the ceiling of a greenhouse, trapping solar energy and retarding the escape of reflected heat. On April 17, 2009, EPA issued its anticipated finding, that "[i]n both magnitude and probability, climate change is an enormous problem. The greenhouse gases that are responsible for it endanger public health and welfare within the meaning of the Clean Air Act." 74 F.R. 18886, 18904. The finding makes clear that motor vehicles are a major source of "four of these greenhouse gases—carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons" and that motor vehicles "contribute to this air pollution." *Id.* at 18888.

EPA issued its finding in response to the United States Supreme Court's decision in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), which acknowledged the connection between carbon dioxide emissions and global warming. The legislative branch of the federal government has also recognized the threat of global climate change, and President Obama has endorsed the America Clean Energy and Security Act of 2009,

passed by the United States House of Representatives (H.R. 2454) on June 26, 2009, which would create new restrictions under the CAA on GHG emissions. In its current form, this regime would aim to reduce GHG emissions 17% below 2005 levels by 2020, and reduce them 83% by 2050.²¹ The regime would work in part by requiring utilities and other major sources of greenhouse gases to buy a permit for their emissions. EPA estimates that in 2005 dollars, these allowances will cost \$13 in 2015 and increase to \$26 or \$27 by 2030.²² Utilities and other sources could offset some of this cost by working to reduce GHG emissions in other sectors, including transportation.

The further development of climate change regulation will likely have direct effects on transportation in an effort to achieve nationwide benchmarks. One approach would be to tax gasoline or tax drivers on the basis of vehicle miles traveled. Whatever the mechanism, such regulation would render carbon intensive modes of transportation, such as freeways, more costly for users. Because transportation accounts for approximately one third of GHG emissions and is the fastest growing source sector, it can be reasonably anticipated that any future federal regulatory scheme will include a component that encourages less per capita motor vehicle travel. This would affect the toll revenue of the planned Gaston East-West Connector, and possibly undermine the Project's viability entirely. Yet the DEIS neglects to even mention these very relevant issues.

2. State Environmental Planning Regulations

The Agencies need not invent a procedure from whole cloth for measuring GHG emissions and identifying mitigation strategies in the DEIS. Across the country, many state and local governments have established policies to consider GHG emissions in the environmental planning process. And the Agencies can rely on directives and guidance documents from these jurisdictions to satisfy their obligation under NEPA to consider all significant environmental impacts that arise from the Project.

Some states have formalized requirements to quantify GHG emissions and consider mitigation strategies. In Massachusetts, projects subject to the state environmental policy act (MEPA)²³ that involve significant GHG emissions must identify and quantify those emissions and also "consider a project alternative in the [EIS] that incorporates measures to avoid, minimize, or mitigate such emissions."²⁴ Similarly, since 2003, the New York State Department of Transportation (NYDOT) has been requiring analysis of GHG emissions for major projects, and the New York Department of Environmental Conservation has issued a "Guide for

²¹ See John Broder, "House Passes Bill to Address Threat of Climate Change," N.Y. Times (June 26, 2009).

²² See Executive Summary of H.R. 2454 as filed with Rules Committee available at http://energycommerce.house.gov/Press_111/20090623/hr2454_rulessummary.pdf

²³ See Mass. Gen. Laws. ch. 30, §§ 61-62H.

²⁴ See Massachusetts Office of Energy and Environmental Affairs, MEPA Greenhouse Gas Emissions Policy and Protocol (Oct. 19, 2007).

Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements," specifically targeted towards "projects that generate millions of vehicle miles traveled."²⁵

In other states, consideration of GHG emissions has followed a more informal path. In California, the state attorney general has directed local governments to consider GHG impacts on transportation and land use projects in order to comply with that state's environmental policy act (CEQA), leading private professionals to promulgate an informal handbook on "alternative approaches to analyzing [GHG] emissions and global climate change in CEQA documents."²⁶ In Washington, the executive of King County, which encompasses Seattle, has adopted a comprehensive order "requiring that adverse climate impacts be described for all projects that must complete State Environmental Protection Act documents, when the county is the lead or is permitting a project in unincorporated King County."²⁷

These regulatory regimes derive their authority from various sources, which are often particular to the state or region where they apply. They demonstrate, however, that an established methodology for analyzing GHG emissions can be applied to evaluate the impacts of large-scale, GHG intensive projects such as the Gaston East-West Connector.

3. NEPA Requirements to Consider GHG Emissions

Recent federal case law makes clear that simply ignoring the significant GHG emissions of this project violates NEPA. Several federal courts have held that GHG emissions must be analyzed under NEPA in various situations relating to transportation, as well as major infrastructure projects. See *Border Power Plant Working Group v. Department of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003) (electric transmission lines); *Mid States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520 (8th Cir. 2003) (coal supply rail lines); *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172 (9th Cir. 2008) (promulgation of motor vehicle fuel efficiency standards). The Ninth Circuit's decision in *Center for Biological Diversity* bears particular significance for the DEIS and its neglect of climate change impacts, as it relates to GHG emissions from motor vehicles.

Like this Project, the fuel efficiency standards at issue in *Center for Biological Diversity* would have produced significant GHG emissions impact by indirect means, through the actions of individual drivers. The Transportation and Safety Board argued that Congress, rather than the agency, had the duty to address climate change, and that it had "no obligation to assess the cumulative impact of its rule on climate change." *Id.* at 1217. FHWA had relied on a similar logic in past cases, arguing that it was "not useful to consider greenhouse gas emissions as part

²⁵ N.Y. Dept. of Environmental Conservation, "Guide for Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements," (Sept. 9, 2008) available at <http://www.nyupstateplanning.org/GHG-EISGuide08.pdf>; see also Michael B. Gerrard, "Climate Change and the Environmental Impact Review Process," *Natural Resources & Environment*, Vol. 22: 3 (Winter 2008).

²⁶ Gerrard, *supra*, at 22.

²⁷ <http://www.kingcounty.gov/transportation/kcdot/KcyInitiatives/ClimateChange.aspx>.

of the project-level planning and development process, since there are no national regulatory thresholds for greenhouse gas emissions or concentrations that have been established through law or regulation.” *Audubon Soc’y v. USDOT*, 524 F. Supp. 2d 642, 709 (D. Md. 2007). But the court rejected that logic, holding that “[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” *Id.* at 1217.

The *Center for Biological Diversity* decision heavily cites the U.S. Supreme Court’s *Massachusetts* decision. That case makes clear that the global nature of the climate change problem does not abrogate the Agencies’ duty to consider the GHG emissions caused by construction of the Project. As the U.S. Supreme Court reasoned:

Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed. *Massachusetts*, 127 S.Ct. 1457 (2007)

The argument that “a small incremental step, because it is incremental, can never be attacked in a federal judicial forum” is simply incorrect. *Id.* GHG emissions from the Project may contribute only a small fraction of global emissions of this pollutant, but that does not allow the Agencies to ignore the issue. GHG emissions do not need to be linked with a specific global warming outcome for the issue to require consideration under NEPA. NEPA requires consideration of environmental effects when their nature is reasonably foreseeable but their extent is not. *Midstates Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520, 549 (8th Cir. 2003). CEQ regulations provide specific procedures for the Agencies to follow when assessing unknown or uncertain impacts. 40 C.F.R. § 1502.22. And the Agencies may rely on the myriad resources detailed above for addressing the specific issue of GHG emissions.

4. Consideration of GHG Emissions in the DEIS

50 The DEIS does not consider, or even mention, GHG emissions. At a minimum, the Agencies must model the GHG emissions of a reasonable range of project alternatives and consider whether they could accomplish the purpose and goals of the Project while limiting the GHG emissions. The Agencies must also detail available mitigation measures for limiting the GHG emissions that will result from this Project, and estimate the potential cost of offsetting the Project’s GHG emissions impact, for example, based on projected permit prices per ton of carbon dioxide under a future cap and trade regime. Finally, the DEIS must detail how regulation of GHG emissions may affect travel demand and by extension toll revenues, and how this might affect the project’s viability. The wholesale failure to consider GHG emissions from the Project is unreasonable, arbitrary and capricious. The Agencies should reissue a DEIS that evaluates the full range of GHG issues related to this Project.

VII. WETLANDS AND WATER QUALITY

1. Regulatory Background

The Clean Water Act (CWA) prohibits the discharge of any pollutant by any person into waters of the United States unless such discharge is made in compliance with various CWA sections, including the § 404 permit provisions. 33 U.S.C. §§ 1251 *et seq.* Discharges will not be permitted under §404 if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem. *See* CWA § 404(b)(1); 40 C.F.R. § 30.10(a). An alternative is “practicable” if it is available and capable of being done after taking into account cost, existing technology, and logistics in light of overall project purposes. 40 C.F.R. § 230.10(a)(2). The § 404(b)(1) alternatives analysis overlaps significantly with NEPA alternatives analysis. Under the 404(b)(1) guidelines, it will be presumed that there are practicable alternatives to discharge activity that occurs in but is not dependent upon wetlands or waters of the US. 40 C.F.R. § 230.10(a)(3); *see also* *Buttrey v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982).

Pursuant to § 401 of the Clean Water Act, 33 U.S.C. § 1341, the state of North Carolina must certify that any discharge from the Project complies with the relevant provisions of the Clean Water Act. The North Carolina Division of Water Quality (DWQ) has explained that certification is predicated on a determination that a project “does not result in cumulative impacts, based upon past or reasonably anticipated future impacts, that cause or will cause a violation of downstream water quality standards.”²⁸ For “projects such as roads on new location,” DWQ requires a “quantitative (i.e. detailed) analysis of water quality impacts.”²⁹ According to DWQ policy, impaired waters listed pursuant to CWA Section 303(d), “warrant special attention with respect to cumulative impact analysis since existing regulatory programs often have not adequately addressed pollution sources for these waters.”³⁰ DWQ therefore advises that “a detailed, quantitative analysis should be conducted by DOT to determine 1) if cumulative impacts are likely,” and “2) what non-point source control measures will be needed and how they are to be implemented.”³¹ DWQ goes on to explain that “this analysis will often require watershed-level modeling using export coefficients, estimated levels of treatment for BMP’s and comparison to numerical water quality standards or numeric water quality goals.”³²

²⁸ NCDWQ, Cumulative Impact Policy for the 401 and Isolated Wetland Permitting Programs. (April 10, 2004) available at <http://h2o.enr.state.nc.us/nCWetlands/documents/6.6FinalVersionofCumulativeImpact.pdf> (citing 15A NCAC 2H .0506 and 15A NCAC 211 .1300).

²⁹ *Id.* at 2.

³⁰ *Id.* at 3.

³¹ *Id.*

³² *Id.*

2. The DEIS' Consideration of Water Quality Impacts

The DEIS fails to adequately analyze water quality impacts from the proposed project. The DEIS points out that a Draft 2008 303(d) list includes a growing number of water bodies in the Project Study Area, including Abernethy Creek, Crowders Creek, McGill Branch, Catawba Creek, and the South Fork Catawba River. The DEIS explains that these water bodies have "impaired use for aquatic life," and that urban storm water runoff is most likely to blame for the impairment. [6-6]³³ But the DEIS gives little indication of how the Garden Parkway—which would open up some of the least urbanized areas of the Catawba watershed to sprawling development with a greatly increased amount of impervious surfaces—would not significantly magnify these impacts.

The DEIS throws out a laundry list of "potential impacts to water quality that could occur under any of the DSAs." [6-9] Yet, the DEIS fails to provide any detailed or quantitative analysis of how these impacts might be avoided, or how they will affect the attainment of water quality standards. It offers only the vague assurance that "impacts from erosion and sedimentation will be minimized by implementing control measures in accordance with NCDENR and NCDOT guidance," and that "an erosion and sedimentation plan will be developed for the Preferred Alternative in accordance with the Erosion and Sediment Control Planning and Design (NCDENR Division of Land Resources, June 2006) and Best Management Practices for the Protection of Surface Waters (NCDOT, March 1997)." [6-10]

The DEIS consideration of cumulative effects to water quality is even less informative. It concedes that "water resources having the potential to be cumulatively affected by non-point source pollution include the Catawba River, South Fork Catawba River, Abernethy Creek, Catawba Creek, Crowders Creek, and Blackwood Creek." [7-17] The DEIS does not describe, though, "what non-point source control measures will be needed and how they are to be implemented," as required by DWQ policy.³⁴ It does not detail "the nature of the discharge, including cumulative impacts to isolated and non-isolated wetlands," as directed by the North Carolina administrative code. 15A NCAC 02H .1302. Instead, the DEIS simply states that "these effects"—whatever they may be — "can be minimized through implementation of local stormwater ordinances and Best Management Practices (BMP)."

The DEIS's treatment of the Project's likely water quality impacts creates the impression that they can be easily mitigated. The Transportation Agencies' actual analysis of these impacts, however, tells a different story:

³³ Crowders Creek was listed in 2006 as impaired by excessive fecal coliform as well, although the DEIS does not mention this. See http://h2o.enr.state.nc.us/tmdl/documents/303d_Report.pdf. The Division of Water Quality has removed the draft 2008 303(d) list and associated information from the DWQ website until EPA gives final approval.

³⁴ See *Supra* Note 28

Anticipated growth associated with the construction of the Gaston East-West Connector is expected to increase the amount of impervious surfaces within the ICE Study Area. Water quality of the Catawba River is likely to be affected cumulatively as development reveals a pattern of increased impervious surfaces through the construction of buildings, parking areas and roadways. The volumes of non-point source pollution expected from the anticipated increase in impervious surfaces can be quantitatively analyzed to determine the significance of this effect. A quantitative analysis is outside the scope of the current study, yet the effect of increased impervious surfaces is believed to be substantial based solely on the amount of land having the potential to be developed as identified in this report.³⁵

In other words, the Project's impact on water quality is "substantial" and it "can be quantitatively analyzed," but the DEIS inexplicably omits any such analysis.

Failure to examine water quality impacts from all reasonable alternatives is a derogation of the Agencies' duties under NEPA, and by extension, under §§ 404 and 401 of the CWA. NEPA requires that the Agencies "[d]evote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits." 40 C.F.R. § 1502.14(b). The superficial disclosure of project impacts in the DEIS falls far short of this standard. The DEIS focuses on relatively inconsequential differences between the myriad "detailed study alternatives,"—route variations of an otherwise identical toll road alternative—instead of meaningfully informing the public about the Project's impacts on the area's water resources, not to mention the resulting burden of waste water treatment, land use, and other regulations that would be needed to offset those impacts.

3. The DEIS' Consideration of Wetlands Impacts

The DEIS explains that, despite efforts to avoid and minimize wetlands impacts,³⁶ "stream impacts will be greater than USACE and NCDWQ regulatory thresholds and will require compensatory mitigation." [6-30] The DEIS, however, gives no indication of where this compensatory mitigation will take place. Even a "conceptual mitigation plan" remains among the Project's several "unresolved issues and areas of controversy." [S-16] The DEIS suggests that the specifics of any mitigation plan lie with the Army Corps of Engineers and NCDWQ, but federal regulations make clear that "permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts." 33 CFR 332.3(a).

³⁵ EarthTech, Inc. *Natural Resources Technical Report for the Gaston East-West Connector* (February 2008) at 132. (emphasis added).

³⁶ The Transportation Agencies apparently declined to adjust the total number of intersections to avoid and minimize water quality impacts as the recommended alternative would pack in more than one every two miles, for a total of twelve along 21.9 mile length of the toll road.

56 The Catawba watershed is a difficult one in which to find suitable mitigation sites,³⁷ and according to the Transportation Agencies' own analysis, the Project will have substantial impacts on water quality in the area. The DEIS should describe the appropriate compensatory mitigation measures that would qualify the Project for state and federal permits. Due to the immense scale of this project—including impacts to 48,995 linear feet of streams, over nine miles—an appropriate mitigation plan would need to be substantial, as it “must be commensurate with the amount and type of impact that is associated with” the permitted use.” 33 CFR 332.3(a)(1). Moreover, mitigation “should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions and services, taking into account such watershed scale features as aquatic habitat diversity, habitat connectivity, relationships to hydrologic sources (including the availability of water rights), trends in land use, ecological benefits, and compatibility with adjacent land uses.” *Id.* at 332.3(b)(1).

57 The DEIS fails to acknowledge any lost functions or features of the Catawba watershed that would be degraded by The Project, much less identify the specific mitigation measures that could replace them. The brief “Mitigation of Impacts” section in the DEIS reproduces a random list of “examples of Best Management Practices for erosion and sedimentation control.” [6-10] Federal courts have held that “the ‘mere listing’ of mitigation measures and processes, without any analysis, cannot support a cumulative impacts determination” under NEPA. *Ohio Valley Envtl. Coalition v. Hurst*, 604 F. Supp. 2d 860, 887 (S.D. W. Va. 2009) citing *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 734 (9th Cir. 2001). The hodgepodge of mitigation “examples” offered by the DEIS cannot support such a determination either.

X. CONCLUSION

We urge the Transportation Agencies to revise their analysis of alternatives and impacts according to the recommendations set forth herein and to issue a revised Draft Environmental Impact Statement for public review and comment.

³⁷ See, e.g., Program Assessment and Consistency Group (PACG). Memorandum re: Expanded service area for mitigating impacts within the Lower Catawba River Basin, Oct. 8, 2008 (recognizing that “securing suitable mitigation in the Catawba 03 sub-basin continues to be problematic.”).

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**Table B3-12: Southern Environmental Law Center
Document: i012/u002 letter dated July 21, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Purpose and Need for Action	The DEIS presents inflated estimates of traffic volumes along area roadways, including estimates for recent years that far exceed the traffic volumes actually observed by NCDOT, which skew the analysis of the Project's purpose and alternatives.	<p>The traffic forecast methodologies and results used in developing the purpose and need and alternatives as summarized in the Draft EIS are documented in the <i>Traffic Forecasting for Toll Alternatives Report</i> (August 2008). The project forecasts were prepared using a travel demand model, and in accordance with all FHWA and NCDOT standards (NCDOT <i>Project Level Traffic Forecasting Administrative Procedures Handbook</i>, 2007). Generally, travel demand models are used for simulating current travel conditions and forecasting future travel patterns and conditions. Travel demand modeling is a function of socioeconomic conditions such as residential densities, locations of jobs and services, and trip lengths and distributions for the various types of trip purposes.</p> <p>All scenarios discussed in the Draft EIS were forecasted from the same base model. The NCTA consultants who conducted the traffic forecasts did so utilizing the official Metrolina Regional Travel Demand Model (MRM), version 6.0, current at the time the traffic forecasts began. The MRM is used for all traffic forecasts for projects within the 13-county region surrounding Charlotte. The base year of this version of the MRM is 2000, with horizon years of 2010, 2020, and 2030. The MRM was calibrated based on observed traffic counts from 2000. It was adopted by MUMPO, GUAMPO, Cabarrus-Rowan MPO (CRMPO), NCDOT, and FHWA after results showed that it met all FHWA calibration and validation standards.</p> <p>The MRM was used to forecast traffic for the project's base year of 2006 and the 2030 design year. The traffic operations analysis used these values. The traffic operations analysis levels of service for existing (2006) and 2030 no-build conditions reported in Section 1.6.2 of the Draft EIS are documented in the <i>Final Traffic Operations Technical Memorandum for I-85, I-485, US 29-74, and US 321 Under Various Scenarios – Gaston East-West Connector</i> (PBS&J, September 2008). These levels of service were calculated using methodologies and models consistent with NCDOT standards (<i>NCDOT Congestion Management Capacity Analysis Guidelines</i>).</p> <p>The MRM, the traffic forecasts developed based on the MRM, and the traffic operations analysis are consistent with NCDOT and FHWA standards and are the best available tools and methods for evaluating and comparing traffic conditions for the project area. Additional details are provided below.</p> <p>Traffic forecasts for the Preferred Alternative were updated to 2035 for the Final EIS. As discussed in Section 2.3.5.1 of the Final EIS, the updated 2035 traffic forecast for the Preferred Alternative is documented in the <i>Gaston</i></p>

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			<p><i>East West Connector Updated Traffic Forecast and Preliminary Design Traffic Capacity Analysis for the Preferred Alternative</i> (HNTB, May 2010). The 2035 forecasts used a more recent version of the MRM (Version 6.1.1), which incorporated updated socio-economic data and a base year of 2005. The 2035 forecast volumes along the Gaston East-West Connector are projected to be higher than the previously forecasted 2030 Toll scenario volumes. Generally, traffic volumes on the modeled network are higher in the 2035 forecast year compared to the 2030 forecast year. Updating the existing conditions information and 2030 no-build traffic operations analysis reported in Chapter 1 of the Draft EIS was not necessary for making decisions regarding the proposed project. Forecasts and levels of service for individual roadway segments for 2006 and 2030 might be different when estimated using the later version of the MRM. But overall, the important conclusion that traffic growth is expected to continue in the region and congestion would occur on area roadways in the future, especially I-85, did not change with updates to the MRM.</p> <p>Regarding the 2006 forecast traffic volumes presented in the Draft EIS, these volumes were interpolated from the 2000 base year MRM model and the 2030 no-build MRM model. A large amount of growth is projected to occur in Gaston County, particularly in the later horizon years of the Long Range Transportation Plan (LRTP). Since the travel demand model was calibrated to year 2000 traffic volumes, it can be expected that actual counts for any given subsequent year will vary at some locations. A comparison of the model's 2006 results (Existing Conditions scenario) with actual 2006 annualized average daily traffic counts along I-85 show that there is reasonably good correlation between the modeled and measured 2006 values for most of the study area. In areas where there are notable differences, measured volumes are lower by about 7 percent or less west of Exit 26 (Belmont Mount Holly Road), and lower by about 10-11 percent east of Exit 26. A review of multiple years of NCDOT traffic counts along I-85 show that between 2000 and 2006, traffic counts along segments can increase or decrease from year to year and can change at non-constant rates. For example, traffic counts along I-85 from Exit 27 to Exit 29 were 104,000 AADT in 2003, 103,000 AADT in 2004 (a change of -0.9 percent), and 120,000 AADT in 2005 (a change of 16.5 percent). The model may have projected more robust growth rates for the period 2000-2010 than what had actually occurred up to 2006, resulting in lower actual traffic counts for that particular year compared to forecasted values.</p>

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			<p>Keeping in mind that the regional approved MRM was calibrated based on known traffic volumes in the year 2000, none of the differences in 2006 modeled volumes compared to 2006 counted volumes would invalidate the project studies or year 2030 forecasts. It could be expected that variations in economic and other conditions and swings in growth rates would normalize over the course of the 30-year forecast. The majority of the analyses reported in the Draft EIS, in particular those used to compare alternatives, were based on the 2030 forecasts (based on approved forecasts of socioeconomic data), not the 2006 forecasts, and are reasonable values to use in the planning process. Year 2006 traffic information was included in the Draft EIS to document existing conditions and the changes predicted to occur by the horizon year. It is noted that in the case of the Gaston East-West Connector, the roadway that would experience the most influence from the presence of the toll facility is I-85, and the year 2006 forecasts and 2006 counts correlate well along I-85 throughout the study area.</p> <p>The measure of congestion used in the Draft EIS is level of service. The level of service (LOS) is a “qualitative measure describing operational conditions within a traffic stream” (Transportation Research Board 2000:2-2). The analysis was performed in accordance with <i>NCDOT Congestion Management Capacity Analysis Guidelines</i> using the North Carolina Level of Service (NCLOS) software, Version 1.3. The NCLOS software provides an overall level of service, representative of general peak hour conditions. The LOS thresholds (density/speed) for each facility type are based on <i>Highway Capacity Manual 2000</i> (Transportation Research Board Special Report 209) methodology, the accepted national standard. The software and method were appropriate for the type of analysis and information needed for making decisions regarding the proposed project. The analysis is documented in <i>Final Traffic Operations Technical Memorandum for I-85, I-485, US 29-74, and US 321 Under Various Scenarios – Gaston East-West Connector</i> (PBS&J, September 2008).</p> <p>The traffic operations analysis uses a number of assumptions and estimates, including the traffic forecasts and estimates of directional distribution, peak hour percentage of daily traffic, and percentages of trucks. An individual driver’s experience on any particular day at any particular peak hour will vary depending on the day and hour. These individual events and experiences may or may not appear to correlate with</p>

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			<p>the predicted measures of general congestion along a route calculated using the accepted methods described above. Also, it should be noted that even if a roadway segment such as the segment of I-85 from Exit 26 to Exit 27 is already calculated to be operating at LOS F during the peak period, it is still possible for that roadway to carry more vehicles, the likely result being that congestion may worsen during the peak periods and/or the peak periods get longer.</p>
2	Purpose and Need for Action	<p>The DEIS claims that the Project would serve the purpose of relieving congestion on US 29/74, US 321 and I-85, but the data presented in the DEIS shows that traffic congestion would either grow worse or remain the same along these roadways.</p>	<p>While existing and future deficiencies of I-85 and US 29-74 are acknowledged in the Draft EIS, improving these specific roadways are not identified as purposes for this project. The project purpose is to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County. The Draft EIS adequately demonstrates that improving I-85 or other area roadways cannot effectively meet this project purpose.</p> <p>Traffic forecasts and operations and regional travel demand statistics are described in detail in Appendix C of the Draft EIS and in Section 2.2.6.3 (Improve Existing Roadways Alternatives) and Section 2.2.7.2 (New Location Alternatives) of the Draft EIS. Appendix C includes forecasts and operations analyses for I-85, US 321, and US 29-74. As discussed in these sections, the Improve Existing Roadways Alternatives that include widening I-85 would achieve only minimal improvements to traffic flow on I-85. A widened I-85 (widened to 8-10 lanes) would continue to operate at LOS E and F in 2030. Most improvements to traffic flow achieved by increasing capacity would be offset by the increase in traffic volumes attracted to a widened I-85 (a phenomenon known as Braess's Paradox, as described in Section C.1.2 of the Draft EIS).</p> <p>The New Location Toll Alternative would reduce traffic volumes on I-85 primarily from NC 279 eastward compared to the No-Build Alternative, although levels of service would remain at LOS E or F in 2030. Similar to the Improve Existing Roadways Alternatives, there is not a large reduction in traffic volumes predicted to occur on I-85 because with the project in place, trips that are diverted to the Gaston East-West Connector from I-85 are replaced with different trips on I-85 that would like to use I-85 but had not in the past due to congestion. Overall, however, there is less congested vehicle hours and miles traveled with the New Location Toll Alternative in place, reducing the duration of congestion in the network.</p>

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			<p>More importantly, however, the New Location Alternative provides an additional east-west route between Gaston and Mecklenburg Counties that would operate at LOS D or better through 2035, which is a traffic flow benefit that cannot be achieved under either the Improve Existing Roadways Alternatives, the No-Build Alternative, or any other type of alternative evaluated (TSM Alternative, TDM Alternative, Mass Transit/Multimodal Alternatives). This additional new east-west route also improves the reliability of the east-west network. If an incident occurs on one of the local east-west routes or river crossings, the impact to travel would be less due to the additional option the new route provides.</p>
3	Alternatives Considered	Common sense upgrades to the area's highway, transit, and freight rail facilities, which in various combinations could address congestion on I-85, receive only cursory consideration in the DEIS.	See response to Comments 2 and 19 in the Southern Environmental Law Center's letter (Document i012/u002).
4	Air Quality	The DEIS does not analyze air quality impacts, including the project's significant contribution to greenhouse gas emissions, or explain how the project would not hamper achievement and maintenance of air quality standards under the Clean Air Act.	<p><i>A Final Air Quality Technical Memorandum for the Gaston East-West Connector</i> (September 2008) was prepared in accordance with FHWA policies and guidance. The report is summarized in Section 4.2 of the Draft EIS. Air quality issues addressed include National Ambient Air Quality Standards, transportation conformity, mobile source air toxics, and local ordinances.</p> <p>The issue of greenhouse gas emissions and their effects on global climate is an important national and global issue, in which FHWA is actively engaged. FHWA has been working with other Federal agencies, including the USEPA and the Department of Energy, to evaluate effective approaches consistent with our national goals. However, no national approach has yet been set in law or regulations, nor has the USEPA established criteria or thresholds for greenhouse gas emissions. Because a national strategy to address greenhouse gas emissions from transportation – and all other sectors – is still being developed, FHWA believes that it is premature to implement policies that attempt to incorporate consideration of greenhouse gas emissions into transportation planning.</p> <p>From a NEPA perspective, it is analytically problematic to conduct a project-level cumulative effects analysis of greenhouse gas emissions on a problem that is global in nature. It is technically unfeasible to accurately model how negligible increases or decreases of CO2 emissions at a project scale would add or subtract to the carbon emissions from around the world. Given the level of uncertainty involved, the results of such an analysis would not be likely to inform decision-making at the project level,</p>

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			<p>while adding considerable administrative burdens to the NEPA process. The scope of any such analysis, with any results being purely speculative, goes far beyond the disclosure of impacts needed to make sound transportation decisions. FHWA believes this approach meets the stated purpose of NEPA, in accord and with CEQ regulations, to concentrate on the analyses of issues that can be truly meaningful to the project decision, rather than simply amassing data.</p>
5	Indirect and Cumulative Effects	<p>The DEIS does not adequately assess how the project -and the development it would induce - will impact already impaired water quality in the area, nor offer any information about the substantial wetlands and stream mitigation that would need to occur within the Catawba River basin.</p>	<p>The qualitative indirect and cumulative effects analysis, prepared for the Detailed Study Alternative in accordance with NCDOT guidelines and summarized in Chapter 7 of the Draft EIS, addresses water resources. An Indirect and Cumulative Effects Quantitative Assessment has been prepared for the Preferred Alternative. This analysis is included in the Final EIS and provides additional information on potential water quality impacts.</p> <p>The Draft EIS Section 6.4.4 addresses impacts to jurisdictional resources, which include wetlands, streams, ponds, and Catawba River buffers. Permitting and mitigation for jurisdictional resources are discussed in Section 6.4.5 of the Draft EIS. As stated in this section, the NCTA intends to primarily use the in-lieu fee payment option made to the NCDENR Ecosystem Enhancement Program (EEP) for mitigation needs. A <i>Conceptual Mitigation Plan</i> was prepared for the Preferred Alternative to provide additional detail on potential off-site and on-site mitigation opportunities. The <i>Conceptual Mitigation Plan</i> is discussed in Section 2.5.4.4 of the Final EIS.</p>
6	Purpose and Need for Action	<p>The immense scale of this project, 21.9 miles of new highway into a relatively undeveloped portion of Gaston County at a cost of \$1.282 billion, calls for an especially thorough review under NEPA. The DEIS, however, belies any notion that its authors undertook an objective evaluation, which might have favored a transportation investment at odds with the North Carolina Turnpike Authority's narrow mandate under NCGS 136-176(b)(2): "construction of the Garden Parkway." The numerous and significant shortcomings of the DEIS prevent meaningful review of the Project, its many far-reaching impacts, and potential alternatives. We urge the Transportation Agencies to revise their analysis of alternatives and impacts according to the recommendations set forth herein and to issue a revised Draft Environmental Impact Statement for public review and comment.</p>	<p>The project purpose is stated in Section 1.3 of the Draft EIS: "The purpose of the proposed action is to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County." Criteria used in the alternatives evaluation to determine whether a particular alternative concept would meet the project purpose are listed in Section 2.2.1 of the Draft EIS:</p> <p>*Reduce travel distance and/or travel times between representative origin/destination points within southern Gaston County and between southern Gaston County and Mecklenburg County.</p>

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			<p>*Provide a transportation facility that would operate at acceptable levels of service (generally LOS D or better on the mainline) in the design year 2030 for travel between Gaston and Mecklenburg County.</p> <p>*Reduce congested vehicle miles traveled and/or congested vehicle hours traveled in Gaston County compared to the No-Build Alternative in 2030.</p> <p>This project purpose does not include any statements that the purpose of the project is to construct the Garden Parkway or any toll facility. A variety of alternatives could meet the criteria stated above. In accordance with Council on Environmental Quality (CEQ) regulations (40 CFR 1502.14) and FHWA guidance and regulations (FHWA Technical Advisory T6640.8A, 1987 and 23 CFR 771.123), a range of reasonable alternatives (including non-toll alternatives) were evaluated in Chapter 2 of the Draft EIS, as well as the <i>Addendum to the Final Alternatives Development and Analysis Report</i> (October 2008) and eliminated for a variety of reasons, as documented in that chapter.</p>
7	Indirect and Cumulative Effects	The Project would fuel sprawling development outward from Charlotte, transforming the bucolic landscape of southern Gaston County, impeding the growth of transit-oriented development in the Charlotte metropolitan area, and thwarting plans to expand the city's light rail network to the Charlotte Douglas Airport and elsewhere.	A <i>Quantitative Indirect and Cumulative Effects Analysis</i> for the Preferred Alternative is included in the Final EIS and provides additional information on potential land use changes that may occur with and without the project. The project is included in the Mecklenburg-Union MPO's 2035 Long Range Transportation Plan, along with public transit projects. The proposed project, which would be located west of the Charlotte-Douglas International Airport, would not interfere with public transit plans that would connect the airport to uptown Charlotte, which is east of the airport.
8	Purpose and Need for Action	Yet the DEIS fails to credibly identify how the Project would satisfy any legitimate transportation need.....The DEIS mischaracterizes the conditions in the area that purportedly establish a need for the Project. It provides only a cursory treatment of induced population growth, and it fails to adequately assess the Project's impact on water quality, air quality, and the overall quality of life in the Charlotte area. These shortcomings prevent the meaningful and informed evaluation of the Project as required by NEPA. The Agencies should issue a revised DEIS that fully addresses these impacts and includes careful evaluation of a viable upgrade alternative that responds to demonstrated needs, such as a lack of mobility options for area residents, insufficient freight rail capacity, and traffic bottlenecks at points such as the interchange of I-85 and US 321, and the US 29-74 Catawba River crossing.	The purpose and need for the project are adequately demonstrated and supported in Chapter 1 of the Draft EIS. The need to connect southern Gaston County and western Mecklenburg County is supported by the local land use plans and long range transportation plans and demonstrated by travel demand modeling. Appendix B of the Draft EIS shows the Gaston Urban Area Metropolitan Planning Organization's (GUAMPO's) population projections for 2010, 2020 and 2030 from the 2030 Long Range Transportation Plan (LRTP). These indicate substantial increases in population in the southern half of Gaston County will occur. Numerous new developments in this area support this trend. Mecklenburg County is projected to continue to be the economic and employment center of the region. Residential growth projected in southern Gaston County and residential and employment growth in western Mecklenburg County will continue to increase demand for improved connectivity and east-west mobility since there is a lack of east-west routes in southern Gaston County

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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			<p>and a lack of connections to Mecklenburg County.</p> <p>The impacts of the Detailed Study Alternatives to air quality are addressed in Section 4.2.5 of the Draft EIS, impacts to water quality are addressed in Section 6.2.3, and indirect and cumulative effects are qualitatively addressed in Chapter 7. A quantitative assessment of indirect and cumulative effects was prepared for the Preferred Alternative (Section 2.5.5 of the Final EIS).</p> <p>A variety of Improve Existing Roadway Alternatives were evaluated, and it was determined they would not meet the project purpose and need (Draft EIS Section 2.2.6). While freight rail improvements may be needed in the region, they would not meet this project's purpose and need to improve east-west transportation mobility in southern Gaston County and between southern Gaston County and western Mecklenburg County, and trucks would still use area roadways to deliver goods within the project area.</p> <p>The GUAMPO 2035 Long Range Transportation Plan includes a wide range of projects to serve the overall transportation needs of the Gaston urban area, including the Garden Parkway, a project to improve the I-85/US 321 interchange, and a project to widen the US 29/74 bridge over the Catawba River.</p>
9	Purpose and Need for Action	<p>The "Purpose and Needs" section of the DEIS is ambiguous, imprecise, and inaccurate. The DEIS fails to justify its focus on connecting "southern Gaston County and western Mecklenburg County," presenting a confusing array of data from variously defined geographic locations. The section presents traffic forecast data that is demonstrably false. In general, rather than identifying an underlying purpose that the project might fulfill, the DEIS restates the specific project design that meets the North Carolina Turnpike Authority's mandate to build the "Garden Parkway" toll road. The resulting project purpose is too narrow to support consideration of the reasonable range of alternatives required by NEPA. Consequently, it is also insufficient to support the identification and permitting of the least damaging practicable alternative that meets the underlying purpose of the project, as required under CWA § 404.</p>	<p>See response to Comment 6 in the Southern Environmental Law Center's letter (Document i012/u002). The environmental resource and regulatory agencies and the public were afforded opportunities to review and provide input throughout the EIS process, including the development of the purpose and need statement and the alternatives development and screening analysis process. All environmental resource and regulatory agencies participating in the Turnpike Environmental Agency Coordination (TEAC) meetings signed a concurrence form in October 2008 concurring on three points: the Purpose and Need (Concurrence Point 1), the Detailed Study Alternatives to be carried forward in the Draft EIS (Concurrence Point 2), and Bridging and Alignment Decisions (Concurrence Point 2a). This concurrence form is included in Appendix A-1 in the Draft EIS. Concurrence Point 3, identification of the Least Environmentally Damaging Practicable Alternative, was achieved on October 13, 2009, and Concurrence Point 4a (Avoidance and Minimization of Jurisdictional Resource Impacts) was achieved on February 16, 2010. These concurrence forms are included in Appendix G of the Final EIS.</p>

Appendix B3 – Interest Group Comments

**Table B3-12: Southern Environmental Law Center
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COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
10	Purpose and Need for Action	The contrived and misleading nature of the DEIS "Purpose and Needs" section offers compelling evidence of the need to put the responsibility for conducting the NEPA process for proposed highway projects in the hands of an agency other than the North Carolina Turnpike Authority. The state legislature has appropriated \$35 million annually to the Turnpike Authority "to pay debt service or related financing expenses on revenue bonds or notes issued for the construction of the Garden Parkway." Without "construction of the Garden Parkway," the Turnpike Authority is not eligible to receive this funding. Not surprisingly, the Turnpike Authority staff and consultants that serve as the primary authors of the DEIS have created a document that is biased in favor of constructing the toll road on which the agency's funding depends.	The lead federal agency for the Gaston East-West Connector project is the Federal Highway Administration, who has approved and signed the Draft and Final EISs, and who is not dependent on gap funding from the State of North Carolina.
11	Purpose and Need for Action	Much of the DEIS alternatives analysis emphasizes the project's purpose of providing "direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County." [1-3] Yet the DEIS provides no evidence that connecting the areas actually to be served by the highway will respond to the needs of anyone other than real estate developers. The DEIS reports that "[l]imited crossings of the Catawba River are constraining travel between Gaston and Mecklenburg Counties." [1-2] A textbox in the DEIS emphasizes: "There are only four bridges over the Catawba River between Gaston and Mecklenburg Counties. None are in southern Gaston County." [1-9] The DEIS declines to mention that NC 49 crosses the Catawba river and provides access to Charlotte eleven miles south of the US 29-74 bridge, just over the Gaston County border. And the DEIS declines to explain why "only four bridges" across the Catawba River in Gaston County represents a problem; other North Carolina rivers in other North Carolina counties are spanned by less than four bridges. In general, the DEIS fails to show that an additional bridge over the Catawba River would respond to any existing mobility need south of the existing bridges.	As discussed in Section 1.5.1.3 of the Draft EIS - Roadway Connections Between Gaston and Mecklenburg Counties, "Gaston County is separated from Mecklenburg County, the region's largest employment and destination generator, by the Catawba River." The problem is not that there are four crossings of the river in Gaston County (there is no threshold to consider), but that there are none south of I-85 and US 29-74 in southern Gaston County, a rapidly growing area, that would connect this area to Mecklenburg County, the economic center of the region.
12	Purpose and Need for Action	The DEIS claims that the Project must accommodate "rapid growth" in the project area, because this growth will "increase demands for accessibility and connectivity." [1-2] But growth in the project area has concentrated along the I-85 and US 29-74 corridors, in areas that would benefit little from a new toll highway 5-10 miles south of I-85. Indeed, the DEIS traffic projections predict that the new toll highway would cause further traffic congestion on much of I-85 and US 29-74, hampering the mobility of residents in these existing communities.	Population growth from 1990 to 2000 is shown in Figure 1-6 of the Draft EIS. Area 4 (Southeast Area) has the largest population growth (in percent and in actual numbers). Population projections for Gaston County by Traffic Analysis Zone from the Gaston Urban Area MPO are shown in Appendix B of the Draft EIS. The densest populations are projected to occur in southern Gaston County, particularly in the southeast corner of the County, and around Mount Holly to the north. Also, see response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).

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13	Purpose and Need for Action	<p>The DEIS suggests that a sizable population currently resides near the planned corridor for the toll highway and that this population is growing rapidly. But the DEIS misleads the reader, referring to different geographic areas depending on whether the analysis relates to population and economic growth, or transportation infrastructure. For example, the DEIS reports that between 2000 and 2008, "the number of residences in southern Gaston County and western Mecklenburg County has increased approximately 24 percent." [1-2] But most of this growth occurred within Mecklenburg County. Gaston County actually grew at a slower rate than the state as a whole during this period - an estimated 8.5% between 2000 and 2008 compared to 14.6% for the state as a whole. Moreover, most of this slower-than-average growth occurred outside of the project area, a fact that the DEIS mischaracterizes. The DEIS cites the Gaston County Comprehensive Plan to support its claim that "[p]lanned growth in southern Gaston County will result in an increased need for east-west mobility," noting that "the population grew fastest between 1990 to 2000." [1-18] In light of this rapid growth in southeast Gaston County, it seems puzzling that "none" of Gaston County's four bridges over the Catawba River "are in southern Gaston County/" [1-9] But the DEIS fails to point out that its definition of "southern Gaston County" does not include all of "southeast Gaston County". As Figure 1-6 shows, the "Southeast Small Area" defined in the Comprehensive Plan includes the US 29-74 and I-85 corridors, and indeed, "most of the population growth in Gaston County" occurred in this corridor, in towns like Belmont and Cramerton, well north of the proposed project area. [1-18]</p>	<p>See response to Comment 12 in the Southern Environmental Law Center's letter (Document i012/u002). Belmont and Cramerton are within the project study area, as defined in Figure 1-1 of the Draft EIS. The Detailed Study Alternatives pass through Belmont municipal limits.</p>
14	Purpose and Need for Action	<p>Given the DEIS's emphasis on connecting "southern Gaston County," the Transportation Agencies should give the reader a precise definition of that area's borders. They should make consistent references to the area in question, particularly with respect to economic and population growth on the one hand, and the area's transportation facilities on the other. In reporting that "none" of the county's four bridges "are in southern Gaston County," [1-9] the DEIS implies that "southern Gaston County" lies below the US 29-74 corridor, but the DEIS presents no population or economic growth data for this area. A better approach would be to adopt the Gaston County planners' definition of "southern Gaston County" - a combination of the southeast and southwest Gaston County "Small Areas" - in order to assess what kinds of transportation facilities may be needed to accommodate population and economic growth in that same area. Notably, according to the Gaston County planners' definition, "southern Gaston County" includes much of US 29-74 and I-85, including where they cross the Catawba River, and so the DEIS should consider reducing congestion on these routes as a means of connecting southern Gaston County and western Mecklenburg County. As it is</p>	<p>The project study area is defined in Figure 1-1 and Section 1.4.1 of the Draft EIS. As stated in Section 1.4.1, the "Project Study Area consists of the following general boundaries: I-85 to the north, the South Carolina state line to the south, Charlotte-Douglas International Airport to the east, and the I-85 and US 29-74 junction and Crowders Mountain State Park to the west. " The Draft EIS reports on population growth in the Gaston County Southeast and Southwest Small Areas in Section 1.7.1 and also shows population growth for all small areas in Gaston County in Figure 1-6.</p> <p>Various combinations of improvements to I-85 and US 29-74 as Improve Existing Roadways Alternatives were evaluated for the project, as documented in Section 2.2.6 of the Draft EIS. These alternatives were eliminated for the reasons described in Section 2.2.6.5 of the Draft EIS.</p>

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		currently presented in the DEIS, the purported need to address "Poor Connectivity Between Gaston County and Mecklenburg County and Within Southern Gaston County" is not coherently defined and the project's ability to meet this need better than other alternatives is unsupported by any quantifiable data. This muddled analysis does not allow the public to meaningfully evaluate this project against a range of reasonable alternatives, as required by NEPA.	
15	Purpose and Need for Action	In addition to connectivity, the DEIS articulates a second need for this project: congestion on the project area's major roadways. The DEIS presents traffic forecasts that exaggerate the level of traffic congestion on I-85, US 29-74, and US 321, making the need for improvements seem urgent. Ironically, as discussed in Section III, the DEIS's Alternatives Analysis demonstrates that the Gaston East-West Connector would actually increase traffic volumes and congestion along much of these roadways. But the DEIS interprets that data to support its claim that a new location toll highway "improves traffic flow and some levels of service on I-85, US 29-74, and US 321." This interpretation does not withstand scrutiny. The DEIS Purpose and Need Section presents four tables with "Existing and Projected Traffic Volumes and Levels of Service" for I-85, US 29-74, US 321, and I-485. The "existing" traffic volumes are for the year 2006, yet their source is not the NCDOT Traffic Survey Group, which observes the traffic on these roadways at least biannually with the aid of 40,000 Portable Traffic Count (PTC) Stations. Rather the DEIS cites a consultant's report, the Gaston East-West Connector (U-3321) Traffic Forecasts for Toll Alternatives (Martin/Alexiou/Bryson, August 2008). Despite having authored these "forecasts" in 2008, the consultants who produced them apparently did not take the opportunity to verify the accuracy of their forecasts against the observations of NCDOT's Traffic Survey Group. Had they done so, they would have found that they have inflated virtually every estimate of "existing" traffic levels in 2006, in some cases more than doubling the actual traffic that was contemporaneously observed on these roadways.	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002). Also, Sections 1.6.2.3 through 1.6.2.6, discuss base year (2006) levels of service on I-85, US 29-74, US 321, and I-485, based on forecasted 2006 traffic volumes. As shown in these sections, most roadway segments evaluated had 2006 levels of service of LOS D or better based on the traffic operations modeling, with just some segments of I-85 and US 29-74 at LOS E or F.
16	Purpose and Need for Action	The following table compares a few of the DEIS "existing" traffic estimates with data from the NCDOT's Traffic Survey Group. (See table on pages 6-7). As the table shows, the discrepancies between these figures are in the tens of thousands. In the case of traffic along US 29-74 between Park and Catawba streets, the DEIS more than doubles the actual volume observed. The DEIS fairly consistently overestimates the "existing" traffic volume along each of the "free existing alternate routes" in the project area. For the I-485 outer loop that the Gaston East-West Connector would feed into, however, the DEIS significantly underestimates traffic volumes. The Transportation Agency thus avoids addressing the legitimate concern that traffic exiting the toll road will overwhelm the existing capacity on the city's outer loop. (See table page 7) Such inaccurate traffic forecasts threaten to	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002). For I-485, as noted in Table 1-5 of the DEIS, the reported traffic volumes are for the mainline only and do not include the traffic volumes on the collector-distributor roads between Exit 9 and Exit 10. The NCDOT traffic counts include volumes on the collector-distributor roads. The segment of I-485 in the project area was recently constructed, and 2006 is the first year NCDOT collected traffic counts for this segment. Also, the Metrolina Regional Travel Demand model used to generate the project forecasts is a capacity constrained model. If a roadway segment, such as the segment of I-85 from Exit 26 to Exit 27 is already operating at LOS F during the peak period, it is still possible for that

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		<p>mislead the public regarding the traffic congestion on these roadways and the viability of proposed solutions. They also undermine confidence in the NEPA process. Indeed, the Transportation Agencies' lax oversight of this "existing" traffic data casts serious doubt upon the legitimacy of the long-term projections presented in the DEIS. If the Transportation Agencies cannot calibrate estimates of existing traffic volumes with NCDOT's own observations, it seems unlikely that they have rigorously assessed the baseline assumptions that produce the grim 2030 traffic volume estimates presented in the DEIS. Not surprisingly, these future estimates also appear to grossly inflate traffic volumes. For example, between Exit 26 and Exit 27 (Sam Wilson Road) on I-85, Table 1-2 of the DEIS predicts that traffic volumes will increase over 40%, or more than 50,000 cars and trucks daily, even though the DEIS reports, erroneously, that that section of I-85 currently operates at the worst possible level of congestion. Just as the DEIS overestimates the number of cars traveling on major roadways in the project area today, it underestimates the deterrence effect that congestion on these roadways will have on travel demand in the future.</p>	<p>roadway to carry more vehicles, the likely results being congestion worsens during the peak periods and the peak periods get longer.</p> <p>Keeping in mind that the regional approved MRM was calibrated based on known traffic volumes in the year 2000, none of the differences in 2006 modeled volumes compared to 2006 counted volumes would invalidate the project studies or year 2030 forecasts. It could be expected that variations in economic and other conditions and swings in growth rates would normalize over the course of the 30-year forecast. The majority of the analyses reported in the Draft EIS, in particular those used to compare alternatives, were based on the 2030 forecasts (based on approved forecasts of socioeconomic data), not the 2006 forecasts, and are reasonable values to use in the planning process. Year 2006 traffic information was included in the Draft EIS to document existing conditions and the changes predicted to occur by the horizon year. It is noted that in the case of the Gaston East-West Connector, the roadway that would experience the most influence from the presence of the toll facility is I-85, and the year 2006 forecasts and 2006 counts correlate well along I-85 throughout the study area.</p>
17	Purpose and Need for Action	<p>The Transportation Agencies should issue a new DEIS that contains a clear and unbiased statement of the purpose and need for this project in order to ensure consideration of a reasonable range of alternatives, and the eventual identification of the least damaging practicable alternative. The project purpose should be stated neutrally and without an artificial level of specificity, such as by defining "southern Gaston County" as the land immediately adjacent to the proposed corridor for the Project. In this situation, with the proposed project having to comply with both NEPA and Section 404 of the CWA, it is even more important that the basic project purpose be properly articulated so as not to artificially constrain the Corps from exercising independent judgment in identifying the basic purpose of the project and using it as the touchstone for evaluating the feasibility of the various potential alternatives.</p>	<p>See response to Comment 9 in the Southern Environmental Law Center's letter (Document i012/u0020).</p>
18	Purpose and Need for Action	<p>A further refined statement of project purpose might be drafted as follows: "To provide increased mobility to serve residents, businesses, and tourists traveling in or through southern Gaston County and western Mecklenburg County in a manner that protects the environment, provides economic opportunity, and preserves the historic and social setting of the affected region." Such a project purpose would not foreclose the consideration in the EIS and the 404/401 permitting process of other solutions for addressing mobility in the area that do not involve the construction of a toll highway. In its current form, the DEIS "Purpose and Needs"</p>	<p>See response to Comments 6 and 8 in the Southern Environmental Law Center's letter (Document i012/u0020).</p>

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		section demonstrates that the North Carolina Turnpike Authority cannot reconcile its narrow mandate to build specific toll road projects with federal law. It also underscores North Carolina's need for an objective, transparent system to prioritize transportation spending based on performance-based criteria.	
19	Alternatives Considered	The DEIS Summary pursues only a cursory examination of all but one alternative: building a toll road in what might be coined "southern-southern-Gaston County." Practical alternatives to the Project-- upgrading the existing road network, installing HOV lanes on I-85, expanding mass transit, improving freight rail facilities, or any combination of these measures-- are excluded because they would not fulfill the need for "connectivity within southern Gaston County" and "between southern Gaston County and western Mecklenburg County." [2-6,2-7,2-8,2-9,2-10,2-16].	The Draft EIS evaluated a range of reasonable alternatives as required by 23 CFR 771.123(c). As discussed in Section 2.2, a wide range of alternatives was included in the first screening of alternatives, and equally considered for their ability to meet the project purpose based on a set of evaluation criteria described in Section 2.2.1 of the Draft EIS. Only alternatives that meet the project purpose are to be carried forward for more detailed study. For those eliminated from detailed study, brief discussions of the reasons were included. The alternatives evaluated in the first screening included the No-Build Alternative, Transportation System Management Alternative, Transportation Demand Management Alternative, Mass Transit and Multimodal Alternatives, Improve Existing Roadways Alternatives, and New Location Alternative (Non-Toll Scenario and Toll Scenario). The Concurrence Point 2 form which identifies the signatories' concurrence with the Detailed Study Alternatives was signed on October 7, 2008 and is included in Appendix A1 of the Draft EIS.
20	Alternatives Considered	The consideration of alternatives is "the heart of the environmental impact statement." 40 CFR § 1502.14. A highway project DEIS "should consider all possible alternatives to the proposed freeway, including changes in design, changes in the route, different systems of transportation and even abandonment of the project entirely." Keith v. Volpe, 352 F. Supp. 1324, 1336 (D. Cal. 1972). The central consideration is whether the functional alternative will actually meet the project's goals, thereby making it reasonable to consider. "Each alternative should be presented as thoroughly as the one proposed by the agency, each given the same weight so as to allow a reasonable reviewer a fair opportunity to choose between the alternatives." Rankin v. Coleman, 394 F. Supp. 647, 659 (E.D.N.C. 1974) By dismissing functional alternatives without thorough review, the Gaston East-West Connector DEIS falls far short of meeting this required legal standard.	See response to Comment 19 in the Southern Environmental Law Center's letter (Document i012/u0020).
21	Alternatives Considered	In several critical ways, the analysis of alternatives in the DEIS is deficient. First, the alternatives analysis improperly narrows the range of alternatives to a new location highway south of the US 29-74 corridor. Second, the alternatives analysis proceeds on the basis of almost no objective, quantifiable data, failing to present even the results of existing studies of transportation in the corridor. Third, the alternatives analysis mischaracterizes how a new location toll road will impact traffic congestion along existing major roadways in the area. Fourth, the alternatives analysis	This comment is a summary of subsequent comments 22 through 36 in the Southern Environmental Law Center's letter. Refer to response to Comment 22 for the first point, responses to Comments 23-26 for the second point, responses to Comments 27-32 for the third point, response to Comment 33 for the fourth point, and responses to Comments 34-36 for the fifth point.

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		presents an incomplete picture of the costs associated with various alternatives. Fifth, the alternatives analysis fails to adequately examine the impact of tolling on minority and low-income populations in the project area, or to compare how alternatives to the toll road would affect these residents.	
22	Alternatives Considered	The DEIS does not analyze reasonable alternatives to the proposed action. Rather, it summarily rejects them because they do not comply with the project "purpose" of connecting "southern Gaston County," however that geographic area is defined, to Mecklenburg County. As the DEIS explains, "[s]outh of US 29-74, there are no continuous east-west roadways in the southern half of Gaston County," [2-18] and apparently, such a roadway is critical to the oft-cited "connectivity" needed in "southern Gaston County." Only the "No Build" or "no action" alternative to the proposed toll road receives any detailed examination within the DEIS. Almost every other alternative is eliminated because it does not "connect" the ill-defined area of "southern Gaston County." The exception is the "new location mass transit" alternative, which would provide the needed connectivity but which is "not financially feasible" in part because it "would be ill-suited to the dispersed low-density land uses in southern Gaston County," unlike a toll road. [2-10] In other words, not enough people live in "southern Gaston County" to justify transit, but a \$1.3 billion toll road would somehow be cost-effective. The DEIS thus rejects all reasonable alternatives to the proposed toll road on the basis that they do not connect the immediate area surrounding the proposed location of the toll road, even though relatively few people live there. The bulk of the alternatives analysis concerns where exactly in "southern Gaston County" to put the toll road. The DEIS must do more than compare slightly varied routes of the same basic design concept.	In accordance with Council on Environmental Quality (CEQ) regulations (40 CFR 1502.14) and FHWA guidance and regulations (FHWA Technical Advisory T6640.8A, 1987 and 23 CFR 771.123(c)), a range of reasonable alternatives, including non-toll alternatives, were rigorously explored and objectively evaluated in Chapter 2 of the Draft EIS. For those alternatives eliminated from detailed study, brief discussions of the reasons are included. The criteria by which the first screening of alternatives was evaluated to determine each alternative's ability to meet the project's purpose and need is described in Section 2.2.1 of the Draft EIS. The criteria include reducing travel distances and/or travel times, providing a transportation facility that would operate at acceptable levels of service in the design year, and reducing congested vehicle miles traveled and/or congested vehicle hours traveled in Gaston County compared to the No-Build Alternative. Subsequent sections of Chapter 2 (Sections 2.2.2, 2.2.3, 2.2.4, 2.2.5, 2.2.6.5, and 2.2.7.3) describe the reasons for eliminating or retaining alternative concepts through the first screening based on these criteria. Regarding mass transit, there would be a major difference in the users of a Mass Transit Alternative and a New Location Alternative or Improve Existing Roadways Alternative. Users of a Mass Transit Alternative would be comprised of residents who typically live relatively close to the transit line. Users of the New Location Alternative or an Improve Existing Roadways Alternative would include a broader spectrum of users, including nearby residents and regional and through travelers, including trucks delivering goods.
23	Alternatives Considered	The DEIS does not support its recommended alternative with hard data comparing it to any alternative. Although the DEIS declines to mention it, this lack of analytical rigor motivated several of the resource agencies to abstain during the merger process. The Transportation Agencies have since persuaded EPA, FWS and NCWRC to participate in the context of Turnpike Environmental Agency Coordination (TEAC) meetings. But the resource agencies' objections to the flimsy analysis in the DEIS remain as applicable as ever.	The Draft EIS compares the Detailed Study Alternatives for a wide range of potential impacts, as described in Chapters 3 through 7 of the Draft EIS and summarized in Table S-2 - Summary of Environmental Impacts. The reasons DSA 9 was identified as the Recommended Alternative are described in detail in Sections S.7 and Section 2.5 of the Draft EIS. It can be concluded that prior concerns expressed by the resource agencies were addressed at the time Concurrence Point 2 - Identified of the Detailed Study Alternatives - was signed (see concurrence form in Appendix A-1). In addition, after the Draft EIS, Concurrence Points 3 and 4a were signed and the forms are included in Appendix G of the Final EIS.

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			Environmental resource and regulatory agencies provided comments on the Draft EIS. Responses to these comments are provided in Appendix B1 of the Final EIS.
24	Alternatives Considered	The DEIS concludes that neither expanded bus service nor rail service "would attract enough trips to noticeably reduce vehicle miles traveled and/or congested vehicle miles traveled in Gaston County compared to the No-Build Alternative, nor would travel times or distances noticeably improve." But the Gastonia Rapid Transit Alternatives Study: Corridor and Modal Options suggests that transit could relieve congestion on I-85 and US 29-74, if combined with proper land use incentives. According to the study, "timely action to encourage transit-oriented development along a selected alignment can serve to stimulate development and redevelopment along desired lines as well as provide more ridership for the rapid transit service, thereby <i>decreasing congestion in the corridor</i> ." The DEIS, however, provides no forecasts of traffic volumes along I-85 and other major roadways for the "Mass Transit" or "Multimodal" alternatives.	As discussed in Section 1.5.2 of the <i>Addendum to the Final Alternatives Development and Evaluation Report for the Gaston East-West Connector</i> (October 2008), transit service would not be expected to divert enough traffic to improve congested vehicle hours traveled or congested vehicle miles traveled in Gaston County. Based on the 2000 Census, the percent of commuters using transit in urban areas of North Carolina was 0.3 percent on Gaston County, 2.6 percent in Mecklenburg County, 1.2 percent in Wake County, and 1.5 percent in Forsyth County. Even with a robust program in place, such as is the case in Mecklenburg County, mass transit would have only a small effect on daily traffic, possibly diverting up to 2 percent of commuters (which does not include other roadway users who would not be diverted) who travel between Gaston and Mecklenburg Counties. In regards to the statement quoted from the <i>Gastonia Rapid Transit Alternatives Study</i> about a selected transit alignment serving to stimulate development and redevelopment, which would provide more ridership and thereby decrease congestion in the corridor; this is an isolated statement in the report, not supported by any studies or analyses cited in the study. Ridership projections from this study showed projected ridership in 2030 for the transit lines studied of 2,600-3,400 trips per day (Section 4.3.2 of the <i>Gastonia Rapid Transit Alternatives Study</i>).
25	Alternatives Considered	Similarly, the DEIS includes a "Multimodal Alternative" that purports to analyze the combined efficacy of mass transit and existing roadway improvement. The DEIS explains that such an alternative "could be defined to include expanded bus or rail service that uses existing roadways, together with either TSM improvements or improvements to existing roadways." But without further defining or examining the "Multimodal Alternative," the DEIS concludes:"These potential combinations of roadway and transit improvements ...would not attract enough trips to noticeably reduce vehicle miles traveled and/or congested vehicle miles traveled in Gaston County compared to the No-Build Alternative, nor would they provide a facility with an acceptable level of service because they would not attract enough trips to change the poor levels of service projected to occur on I-85 and other area roadways under the TSM Alternative or Improve Existing Roadways Alternatives. Travel times and distances also would not noticeably improve." As with the mass transit section, the DEIS does not provide any further specification or explanation	The Draft EIS Section 2.2.5.2 states that, "As described in Sections 2.2.3, 2.2.5.1, and 2.2.6.1, the TSM Alternatives, the Improve Existing Roadways Alternatives, and the Mass Transit Alternatives would not meet the project's purpose and need." Specific reasons for their elimination are included in the cited sections. These are supplemented with a discussion specific to the Multimodal Alternative in Section 2.2.5.2. Although freight capacity improvements may be needed in the region, and they may (or may not), accomplish the benefits noted in the comment, this type of concept was not suggested by the public (Section 9.1 of the Draft EIS) nor by any environmental resource or regulatory agency during the scoping process (See Appendix A-3) or during discussions of Concurrence Point 2. Freight is addressed in the Gaston Urban Area MPO's 2035 LRTP as a component of their transportation plan, which also includes the

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		as to how it arrives at this verdict. And the DEIS does not even mention the possibility of freight rail capacity upgrades, which could take truck traffic off of I-85 and other major arterials, thereby reducing the state's highway maintenance and repair expenses, reducing congestion and making automobile travel on area roads safer and more enjoyable.	proposed project.
26	Alternatives Considered	In general, the DEIS adopts a cut and paste approach to the alternatives analysis. Its discussions of the "transportation demand management" or "TDM alternative," the "transportation supply management" or "TSM alternative," the "Mass Transit Alternative," and the "Multi-Modal Alternative," bear a disturbing similarity to a generic discussion of these same "alternatives" for other North Carolina Turnpike Authority projects. These discussions follow the same basic pattern of "analysis." With the exception of a new location metro line through "southern Gaston County," which "would not be financially feasible," the DEIS defines project "alternatives" as sets of insignificant half-measures that will yield only "minimal" benefits in the face of the overwhelming traffic volumes predicted to occur. As discussed previously in Section III, the DEIS traffic volume estimates lack credibility and strain credulity. And in light of the Gastonia Rapid Transit Alternatives study, the DEIS should explain how the Transportation Agencies determined that the benefits of these alternatives, alone or in combination, are "minimal."	The evaluations of the TSM Alternative, TDM Alternative, Mass Transit Alternatives, and Multimodal Alternatives, are considered in the context of the project study area and the purpose and need of this particular proposed project. As discussed in Section 2.2.3, the TSM Alternative included fifty-eight intersection and ramp improvements at nineteen locations in the project study area. The locations and improvements are listed in the <i>Addendum to the Final Alternatives Development and Evaluation Report for the Gaston East-West Connector</i> (October 2008), and were based on locations wherein potential deficiencies in intersection or ramp operations became apparent when evaluating year 2025 traffic operations for the Improve Existing Roadways Alternatives. The TDM Alternative included strategies currently being implemented in Gaston and/or Mecklenburg County. Mass Transit Alternatives and Multimodal Alternatives considered a new crossing of the Catawba River as an option.
27	Alternatives Considered	According to the DEIS, one of the two purposes of this project is "to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area." [1-3] According to the DEIS, "[t]raffic operations would improve on I-85 and on segments of US 29-74 with the New Location [toll road] Alternative ... compared to the No-Build Alternative, since there would be less traffic on I-85 and US 29-74 (Appendix C, Table C-2)." [2-21] But Appendix C shows that traffic would increase along much if not most of the length of I-85, US 29-74, and US 321 under the toll road alternative.	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).
28	Alternatives Considered	Specifically, Tables C-2 and C-3 show that the toll road would cause 2030 traffic volumes to increase to the west of Cox Road along I-85, and to the west of South Main Street along US 29-74, compared to the No-Build Alternative. To the east of these midpoints, however, traffic volumes are projected to be lower under the toll road scenario. This creates the impression that some drivers will use I-85 and US 29-74 in the west of Gaston County and switch to the toll road as they near Charlotte or the airport. But traffic volumes along US 321, the main north-south arterial in the project area, are not projected to have a corresponding increase. The DEIS never explains the curious commuting patterns, and accompanying	The results of the travel demand model are explained in Section C.1.2 of Appendix C of the Draft EIS. A potential explanation for the situation described in the comment is that drivers who would use only the segments of I-85 or US 29-74 closer to Charlotte would instead use the Gaston East-West Connector. Diversion of trips along the segments of I-85 and US 29-74 in the western portion of the project study area are offset by additional traffic using those segments to access the Gaston East-West Connector.

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		development, that its traffic forecasts suggest.	
29	Alternatives Considered	The DEIS asserts that the traffic models "demonstrate a reduction in congested travel" for the toll road, [2-21] by which it apparently means the number of miles driven in "LOS F" conditions will be less under the No-Build scenario. But even under this narrow definition of "congestion relief," conditions would be virtually the same under the "no-Build" and toll road scenarios-- with the toll road reducing "congested VMT" by only around one half of one percent. On the other hand, employing the Transportation Agencies' own "level of service" descriptor, the toll road appears to worsen congestion compared to the "No-Build" scenario. According to Table C-2, only a single segment of I-85 would experience a better level of service (LOS E rather than LOS F) under the toll road scenario. Even this one service improvement, however, would result from added capacity on I-85 to facilitate an intersection with the planned toll road, not from a change in traffic volumes, which would increase. The remainder of I-85 headed in to Charlotte is projected to operate at LOS F whether the toll road is built or not.	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).
30	Alternatives Considered	Along US 29-74, the toll road would unambiguously worsen the level of service. Table C-3 lists the projected levels of service along twenty-three segments of US 29-74. At four of these segments, the level of service will be one to two grades lower under the "New Location Alternative Toll Scenario" compared to the "No-Build Alternative." For example, US 29-74 from Thomas St. to NC 279 would operate at LOS-C under the No-Build alternative, and LOS-D under the toll road scenario. Just east of Sparrow Springs Road, LOS D conditions would prevail under the No-Build alternative, but this would slide to LOS F under the toll road scenario. Along the other nineteen segments of US 29-74, the level of service would be the same under the No-Build and toll road scenarios-- mostly LOS F.	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).
31	Alternatives Considered	The DEIS Appendix C does not present traffic data for US 321. It nonetheless concludes that "[l]evels of service along US 321 are similar for all evaluated alternatives." [C-9] No data supports this conclusion. A one-page handout that the Turnpike Authority distributed at public meetings and posted on its website indicates that levels of service along the segment of US 321 between I-85 and US 29-74 would worsen under the toll road scenario, reaching capacity, but otherwise US 321 would remain "under capacity" regardless of whether the toll road is built.	Traffic data for US 321 is reported in the <i>Traffic Operations Technical Memorandum for I-85, I-485, US 29-74, and US 321 Under Various Scenarios</i> (July 2008), incorporated by reference.
32	Alternatives Considered	The DEIS traffic forecasts deserve little credence, but even accepting their predictions, the Gaston East-West Connector would at best have no positive impact on traffic congestion in the area. The DEIS traffic forecasts show that a new location alternative would worsen the level of service at which much of I-85, US 29-	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).

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		74 and US 321 operate in the project area. The forecasts show that "congested VMT" would decline by less than one percent. The DEIS cannot claim, on the basis of this data, that the project would meet its identified need "to improve traffic flow on the sections of I-85, US 29-74 and US 321 in the Project Study Area." [1-3] The Transportation Agencies should acknowledge this in a revised DEIS that evaluates a reasonable range of alternatives to address identified transportation needs.	
33	Alternatives Considered	<p>Just as the DEIS gives commuters and residents little insight into how much this project will improve mobility compared to reasonable alternatives, it gives taxpayers only the dimmest notion of how this project's cost compares to that of potential reasonable alternatives. The DEIS presents no cost information about upgrades to existing highway, rail, and transit facilities. And the DEIS mischaracterizes the revenue potential of tolling, glossing over the substantial public funding that the Project would require. As a result, the DEIS leaves the reader ill-equipped to judge whether the Gaston East-West Connector is a sound investment of public funds or a boondoggle.</p> <p>Even under the Turnpike Authority's most optimistic forecast of toll revenues, the Project will require several hundred million dollars of public funding. The DEIS should therefore analyze potential alternatives with this magnitude as a reference point, including those that carry similar actual price tags.</p>	<p>The reasonable alternatives for the project, which must be able to meet the project's purpose, were identified through the screening process described in Chapter 2 of the Draft EIS, and are labeled the Detailed Study Alternatives. Also, see response to Comment 9 in the Southern Environmental Law Center's letter (Document i012/u002).</p> <p>Cost comparisons of the Detailed Study Alternatives are provided in Section 2.4.5.2 of the Draft EIS. The Draft EIS Section 2.4.4.1 discloses that a preliminary traffic and revenue study was conducted for the project, and that this forecast is used for predicting revenue, and is separate from the NEPA forecast. The <i>Proposed Gaston East-West Connector Preliminary Traffic and Revenue Forecast Final Report</i> (October 12, 2006) was available for download on the project website at the same time as the Draft EIS.</p> <p>Sources of funding for the project were explained in the FAQ (Frequently Asked Questions) sheet provided as a handout at the Public Hearings and Pre-Hearing Open Houses held in June 2009. This handout also is available on the project Web site (www.ncturnpike.org/projects/gaston).</p>
34	Community Characteristics and Resources	<p>Executive Order 12898 mandates "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects ... on minority populations and low-income populations."¹⁴ Tolling will clearly have a disproportionate impact on low-income residents in the project area, and the DEIS should identify and address these effects.</p> <p>Instead, the DEIS reasons that there is "no potential for disproportionately high and adverse impact," [3-25] on minority and low-income communities because they will be able to use I-85, US 29-74 and the other existing free alternative routes to the toll road. The DEIS discussion of Environmental Justice intimates that the toll road will benefit even those who cannot afford to travel on it because "the DSAs would be diverting traffic from the existing routes." [3-26] The DEIS traffic forecasts, however, show that much of the existing roadways would operate at LOS F with the toll road, and that the toll road would actually increase traffic volumes along much of I-85 and US 29-74.</p>	<p>Environmental justice issues are discussed in Section 3.2.5 of the Draft EIS. As stated in Section 3.2.5 of the Draft EIS, any of the Gaston East-West Connector DSAs would provide a new, limited-access, east-west route in the region. A result of the project would be reduced traffic on the existing non-toll route, I-85. Completing the project would benefit all motorists, including low-income motorists who may choose not to use the toll facility or may tend to use it less frequently. Regarding traffic volumes, see response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).</p>

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35	Land Use and Transportation Planning	Similarly, the DEIS claims that the project has "no potential" to negatively affect transit service in the project area, but this ignores the link between land use and transportation planning. As the Gastonia Rapid Transit Alternatives Study points out, a successful transit program hinges on "timely action to encourage transit-oriented development along a selected alignment." The Gaston East-West Connector would encourage low density, auto-dependent development that would undermine any concentration of development along a transit corridor to the north. As a result, the mobility of residents in the project area who lack access to a privately owned automobile would decline as a result of this project being built.	As stated in Section 3.1.3 of the Draft EIS, the proposed project is consistent with the Gaston Urban Area <i>2030 Long Range Transportation Plan</i> and the Gaston County Comprehensive Plan (land use focused). The <i>Gastonia Rapid Transit Study</i> (December 2005) was conducted by the City of Gastonia and the Gaston Urban Area MPO (of which the City is also a member). The Gaston Urban Area MPO also prepared the <i>2030 and 2035 Long Range Transportation Plans</i> (LRTP). The LRTP addresses and ranks projects of different transportation modes, including highways and public transit, and ranks the Gaston East-West Connector (Garden Parkway) as the number one priority. The <i>Gastonia Rapid Transit Study</i> acknowledges the Garden Parkway and states; "Despite the proposed Garden Parkway, it is estimated that there is not enough east west capacity to meet the demand for traffic in the future." This statement implies, and the LRTP indicates, there is need for both new highway and transit services in Gaston County.
36	Purpose and Need for Action	The DEIS leaves no doubt that the proposed action will not improve the mobility of some residents in the project area. Clearly there is a need to minimize the number of people for whom this is true in order to realize the fullest overall improvement in mobility. The DEIS recognizes no such need, however, nor does it discuss any goals or measures to address it. A revised DEIS should address these issues in order to comply with Executive Order 12898 and NEPA.	The purpose of the project, as stated in Section 1.3 of the Draft EIS, is to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County. The Preferred Alternative, and the other Detailed Study Alternatives, meet this project purpose. As the long list of projects in the 2030 and 2035 Long Range Transportation Plans attest, no one project can solve all the transportation needs of all the people within and traveling through the Gaston urban area. See also response to Comment 34 in the Southern Environmental Law Center letter (Document i012/u002).
37	Air Quality	The DEIS reports that EPA effectively disapproved the State Implementation Plan "SIP" submission for Charlotte, causing NCDQAQ to preemptively withdraw it. The DEIS explains that EPA's subsequent "finding of failure to submit" a SIP could result in highway sanctions if NCDQAQ does not submit an appropriate plan within 24 months, although it adds that such sanctions are "unlikely," as the State may simply "bump up" to "serious" nonattainment status instead. At no point does the DEIS address the cost or health implications of the serious nonattainment designation. Nor does the DEIS address how this project would affect the region's efforts to meet the requirements that would be triggered by that designation. The DEIS treats the Charlotte area's smog as if it were completely divorced from major transportation decisions such as the one that this DEIS purports to analyze.	The general costs or health implications of a regional nonattainment designation that has not occurred is not within the purview of the proposed project. The Draft EIS appropriately discusses the project-related implications of a potential nonattainment designation in Section 4.2.2. The Special Project Commitments sections of the Draft EIS stated "NCTA will coordinate with Gaston Area Urban MPO and the Mecklenburg-Union MPO to ensure the air quality conformity determination for the region includes the project's design concept and scope consistent with the Preferred Alternative."

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			<p>USDOT made a conformity determination on the MUMPO and GUAMPO 2035 LRTPs and TIPs on May 3, 2010.</p> <p>As discussed in Section 2.5.2.2, the current refined preliminary design for the Preferred Alternative was not completely consistent with the project's concept and scope included in the travel demand model used for the May 3, 2010 conformity determination. After the May 3, 2010 conformity determination made by the USDOT, the GUAMPO prepared an amendment to the 2035 LRTP and 2009-2015 TIP so that the project design concept and scope included in the LRTP and TIP is consistent with the Preferred Alternative. GUAMPO made a conformity determination on the amended 2035 LRTP and 2009-2015 TIP on August 24, 2010. USDOT issued a conformity determination on the amendments on October 5, 2010. A copy of the USDOT letter is included in Appendix K of this Final EIS.</p>
38	Air Quality	<p>In addition to its further stigma, a "severe" nonattainment designation would require Charlotte area planners to adopt, among other costly abatement strategies, "specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles traveled." In other words, strategies would have to be developed to compel residents in other parts of the region to drive less to offset the increase in VMT generated by the Gaston East-West Connector.</p>	<p>In the correspondence between NCDENR and USEPA provided in Appendix A-8 of the Draft EIS, nonattainment designation discussions were about a potential voluntary reclassification of the Metrolina region from Moderate to Serious as an option available to the State resulting from the USEPA stating they could not approve the SIP submitted June 15, 2007. A Severe nonattainment designation was not being contemplated.</p>
39	Air Quality	<p>The Charlotte area's smog problem is not going to go away anytime soon. As the DEIS Air Quality Technical Memorandum acknowledges, the 2007 eight-hour ozone design values measured in Mecklenburg County was .93 ppm, the highest since the 2004 designation year. State authorities have yet to hatch a viable plan for bringing emissions into compliance with the old standard by the 2010 deadline, even without accounting for the Gaston East-West Connector. The new, more stringent standard will require significant reductions in the emission of ozone precursors by 2016. Construction of a 22-mile, twelve intersection, 4-lane toll highway from the urban fringe through rural Gaston County would cause a significant increase in these emissions. The DEIS fails to even acknowledge this impact, much less compare the benefit of adopting an alternative that would help to solve the region's ozone problem rather than exacerbate it.</p>	<p>Transportation conformity is discussed in the Draft EIS in Sections 4.2.2 and 4.2.5.1. At the time the Draft EIS was published, the proposed project was included in the approved Long Range Transportation Plans (LRTPs) for the Gaston Urban Area MPO and the Mecklenburg-Union MPO. A conformity determination for these LRTPs was made on June 8, 2005 and FHWA and FTA issued the conformity finding on June 30, 2005. The transportation conformity determinations were made for ozone and carbon monoxide. Since the project was part of a conforming plan, its effects on ozone would have been considered in the conformity determination.</p> <p>USDOT made a conformity determination on the 2035 LRTPs and TIPs on May 3, 2010. A copy of this letter, along with USEPA's April 22, 2010 review, can be found in Appendix K of this Final EIS.</p> <p>As discussed in Section 2.5.2.2, the current refined preliminary design for the Preferred Alternative was not completely consistent with the project's concept and scope included in the travel demand model used for the May 3, 2010 conformity determination. After the May 3, 2010 conformity determination made by the USDOT, the GUAMPO prepared an amendment</p>

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			to the 2035 LRTP and 2009-2015 TIP so that the project design concept and scope included in the LRTP and TIP is consistent with the Preferred Alternative. GUAMPO made a conformity determination on the amended 2035 LRTP and 2009-2015 TIP on August 24, 2010. USDOT issued a conformity determination on the amendments on October 5, 2010. A copy of the USDOT letter is included in Appendix K of this Final EIS.
40	Air Quality	Based on the Obama administration's pledge to rely on "sound science" and public health experts' previous endorsements of a lower PM2.5 standard, the Charlotte metro area appears likely to slip into nonattainment. This Project will make it more difficult for Charlotte to meet a new, more stringent standard. The DEIS should detail the likely contribution of the Project, especially truck traffic, to regional PM2.5 pollution, based on transparent, objectively verifiable traffic forecasting. It should also explain how designation of metro Charlotte as a nonattainment area for PM2.5 may affect the viability of the Gaston East-West Connector, and explore alternatives that substantially decrease, rather than increase, PM2.5 emissions in the region.	The Metrolina region currently is designated as in attainment for PM2.5. No quantitative analysis for PM2.5 is required.
41	Air Quality	The DEIS makes no mention of Section 109(h) or its implementing regulations. Section 4.2.5.2 of the DEIS primarily disclaims responsibility for analyzing MSATs, explaining that "while much work has been done to assess the overall health risk of air toxics, many questions remain unanswered." It goes on to mention that, in any event, "USEPA has not established regulatory concentration targets" for MSATs. Neither the brief treatment of air toxics within the DEIS, nor the attached "qualitative analysis of MSATs" at Appendix H, addresses mitigation measures to reduce the emission of air pollutants, contrary to the requirements of Section 109(h). The Air Quality Technical Memorandum advances the dubious rationale that while "it is expected there would be slightly higher MSAT emissions in the immediate area of the project, relative to the No-Build Alternative ... current tools and science are not adequate to quantify them," or apparently to provide any information other than a hopeful assessment that "EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions" in MSATs. This optimistic analysis fails to provide the basis for a meaningful assessment of this project's environmental impacts, as required by NEPA. The DEIS should catalogue the schools, hospitals, public parks and other locations in the project area where sensitive populations would likely suffer exposure to MSAT generated by the toll road. The DEIS should estimate the likely emissions exposures at these locations using accepted testing methods, relate these estimates to the findings in contemporary, peer-reviewed health studies of MSAT exposures, and discuss specific mitigation measures that could safeguard the identified sensitive populations. Finally, the DEIS should compare these costs with	The mobile source air toxics (MSAT) qualitative analysis included in Appendix H of the Draft EIS was conducted in accordance with the Federal Highway Administration <i>Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents</i> (February 3, 2006). This guidance has been updated in the <i>Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents</i> (September 30, 2009). This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 and Appendix D of the Final EIS. The qualitative analysis in Appendix D identifies nearby sensitive receptors such as school and residences. As stated in the updated guidance (page 5), "air toxics analysis is an emerging field and current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that would result from a transportation project in a way that would be useful to decision-makers." As stated in Appendix B of the <i>Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documentation</i> (September 30, 2009), there is no obligation to identify and consider MSAT mitigation strategies as part of a qualitative analysis, although such strategies may be part of a project's design. Since the proposed Gaston East-West Connector warranted a qualitative analysis, the NCTA is not proposing any mitigation at this time. The requirements of 23 U.S.C. § 109, sections (h) and (j) have been met. Section (h) requires air pollution be taken into consideration in the decision-making process. Section (j) requires the agency to provide

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		those associated with a plausible alternative that does not involve a new-location toll road, such as upgrades to existing highway, transit, and freight rail facilities in the area.	guidance that promotes projects that are consistent with air quality nonattainment and/or maintenance plans. The Draft EIS provides an air quality analysis in accordance with FHWA policy and guidance (www.fhwa.dot.gov/environment/aqupdate/index.htm).
42	Air Quality	The range of air pollutants considered by the DEIS is also inadequate. Section 109 requires the consideration of "possible" adverse environmental effects, including air pollution. 23 U.S.C. § 109. This analysis requires "the gathering and evaluation of evidence on potential pollution hazards." <i>D.C. Fed'n of Civic Ass'ns v. Volpe</i> , 459 F.2d 1231, 1242 (D.C. Cir. 1971). The DEIS's limited analysis of air pollutants only addresses the NAAQS criteria air pollutants and those listed as "priority" MSATs. Section 109 of the Federal Aid Highway Act, however, requires analysis of more than just these pollutants.	The requirements of 23 U.S.C. § 109, sections (h) and (j) have been met. Section (h) requires air pollution be taken into consideration in the decision-making process. Section (j) requires the agency to provide guidance that promotes projects that are consistent with air quality nonattainment and/or maintenance plans. The Draft EIS provided an air quality analysis in accordance with FHWA policy and guidance (www.fhwa.dot.gov/environment/aqupdate/index.htm).
43	Air Quality	EPA's MSAT list includes 21 air pollutants from motor vehicles that are known or suspected to cause cancer or other serious health effects. 66 F.R. 17230 (March 29, 2001). The qualitative analysis cited by the DEIS only examines a subset of this list: the six MSATs designated by EPA as priority MSATs. (4.2.3, Exhibit 4-1). The remaining MSATs are known to have adverse health effects and are known to be emitted from mobile sources, but are not included in the DEIS's air pollution analysis. Likewise, EPA has promulgated a list of 33 Urban Hazardous Air Pollutants (Urban HAPs), which are judged to pose the greatest potential threat to public health in the largest number of urban areas." 64 F.R. 38706, 38715 (July 19, 1999). "[M]obile sources are an important contributor to the urban air toxics problem." <i>Id.</i> A number of the non-priority MSATs are also included in the Urban HAP list. The inclusion of an air pollutant on the MSAT list and/or the Urban HAP list creates a strong presumption that the pollutant is known to have adverse health and environmental effects, and therefore requires consideration by the Agencies under Section 109(h).	See response to Comment 42 in the Southern Environmental Law Center's letter (Document i012/u002).
44	Air Quality	Given the clear link between the MSATs in vehicle exhaust and health impacts, the question is not whether construction of the Gaston East-West Connector-including the massive I-485 interchange that will encroach upon Berewick District Park - will have negative health repercussions for those who live nearby. The question is how accurately these health impacts can be predicted. The Agencies may not have a computer model specifically designed for this task and there may be limits on how accurately the health impacts in this area can be predicted. But the purpose of NEPA is to force Agencies to consider and disclose the reasonably foreseeable consequences of their actions; the DEIS focuses instead on justifying its failure to consider these consequences. The Agencies must model the health impacts of the increased MSAT exposure to the extent practicable as evidenced by "theoretical	The mobile source air toxics (MSAT) qualitative analysis included in Appendix H of the Draft EIS was conducted in accordance with the Federal Highway Administration Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (February 3, 2006). This guidance has been updated in the Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents (September 30, 2009). This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 and Appendix D of the Final EIS. As stated in the updated guidance (page 5), "air toxics analysis is an emerging field and current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that would result from a transportation

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		approaches or research methods generally accepted in the scientific community." Failure to do so violates Section 109(h) of the Federal-Aid Highway Act.	project in a way that would be useful to decision-makers."
45	Air Quality	The DEIS traffic forecast predicts that construction of the Gaston East-West Connector will cause VMT in Gaston County to increase by around eleven percent compared to the No Build Alternative. Accepting this forecast, the Gaston East-West Connector would generate tens of thousands of tons of greenhouse gas (GHG) emissions each year. The DEIS ignores these emissions. This failure to even acknowledge GHG emissions is at odds with current environmental planning practices across the nation. For a project of this scale, the Agencies must consider GHG emissions impacts and mitigation strategies. Failure to address this significant environmental impact is a violation of NEPA. Especially for a toll road project that relies on increasing vehicle travel to generate sufficient revenue to finance the project, it is essential that issues related to GHG emissions be disclosed and evaluated.	<p>To date, no national standards have been established regarding greenhouse gases, nor has USEPA established criteria or thresholds for greenhouse gas emissions. On April 2, 2007, the Supreme Court issued a decision in Massachusetts et al v. Environmental Protection Agency et al that the USEPA does have authority under the Clean Air Act to establish motor vehicle emissions standards for CO2 emissions. The USEPA is currently determining the implications to national policies and programs as a result of the Supreme Court decision. However, the Court's decision did not have any direct implications on requirements for developing transportation projects.</p> <p>FHWA does not believe it is informative at this point to consider greenhouse gas (GHG) emissions in a Draft Environmental Impact Statement (EIS) for an individual road construction project, such as the Gaston East-West Connector. The climate impacts of CO2 emissions are global in nature. Analyzing how alternatives evaluated in a Draft EIS might vary in their relatively small contribution to a global problem will not better inform decisions. Further, due to the interactions between elements of the transportation system as a whole, emissions analyses would be less informative than ones conducted at regional, state, or national levels.</p> <p>NEPA does not require analyses that will not provide useful information to the decision maker (See Pub. Citizen, 541 US at 767 (agencies are to "determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decisionmaking process")). FHWA concludes that CO2 emissions cannot usefully be evaluated in this EIS in the same way that other vehicle emissions are addressed. The Project's increase in VMT does not necessarily correlate with an increase in GHG emissions because many factors will affect the amount of GHG emissions that may result from the project, such as increased speeds, improved vehicle fuel economy, and the use of cleaner fuels. Moreover, many of the factors affecting the amount of GHG emission potentially attributable to the project are outside the control of FHWA, thereby making an analysis of global climate change speculative. NEPA does not require analysis of impacts that are highly speculative. (Deukmejian v. Nuclear Regulatory Commission, 751 F.2d 1287, 1300 & n.63 (DC Cir 1984), vacated on other grounds, 760 F.2d 1320 (DC Cir. 1985))</p>

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			<p>(EIS need not address "remote and highly speculative consequences"); see <i>MooreFORCE, Inc. v. US Dept of Transportation</i>, 243 F. Supp. 2d 425, 439 (MDNC 2003) (stating that an EIS need not "consider potential effects that are highly speculative or indefinite").</p> <p>FHWA is actively engaged in many other activities with the DOT Center for Climate Change to develop strategies to reduce transportation's contribution to GHGs—particularly CO2 emissions—and to assess the risks to transportation systems and services from climate change. FHWA will continue to pursue these efforts as productive steps to address this important issue. FHWA will review and update its approach to climate change at both the project and policy level as more information emerges and as policies and legal requirements evolve.</p>
46	Air Quality	<p>As the DEIS acknowledges, the Gaston East-West Connector will induce millions of miles of additional vehicle travel each year, creating tens of thousands of tons of GHG pollutants. Therefore, the Project rises above the "significance" threshold established under other existing regulatory regimes. And recent case law trends indicate that a 22-mile, four-lane, new location toll way should satisfy any threshold for significance in judicial review under NEPA. See, e.g., <i>Laidlaw Energy v. Town of Ellicottville</i>, Case No. 1659 CA 08-01183 (N.Y. App. Ct. Feb. 6, 2009) (upholding decision to deny a land use approval under the State Environmental Quality Review Act due to concern over carbon emissions and findings that a proposed biomass cogeneration facility would cause "serious increases in harmful emissions" that would result in an "unacceptable adverse impact"); <i>Coalition for Environmental Integrity in Yucca Valley v. Wal-Mart</i>, Case No. CIVBS 810232 (Cal. Sup. Ct. May 14, 2009) (holding that state environmental planning documents for Wal-Mart supercenter had to "consider the entire GHG emission output of the Project").</p>	<p>To date, no national standards have been established regarding greenhouse gases, nor has USEPA established criteria or thresholds for greenhouse gas emissions. North Carolina has not established standards or thresholds regarding greenhouse gases. The cases cited in this comment relate to the New York State Environmental Quality Review Act and the California Environmental Quality Act. Projects in North Carolina are not required to follow the rules and regulations of other states.</p>
47	Air Quality	<p>Because transportation accounts for approximately one third of GHG emissions and is the fastest growing source sector, it can be reasonably anticipated that any future federal regulatory scheme will include a component that encourages less per capita motor vehicle travel. This would affect the toll revenue of the planned Gaston East-West Connector, and possibly undermine the Project's viability entirely. Yet the DEIS neglects to even mention these very relevant issues.</p>	<p>FHWA is actively engaged in many activities with the DOT Center for Climate Change to develop strategies to reduce transportation's contribution to GHGs—particularly CO2 emissions—and to assess the risks to transportation systems and services from climate change. FHWA will continue to pursue these efforts as productive steps to address this important issue. FHWA will review and update its approach to climate change at both the project and policy level as more information emerges and as policies and legal requirements evolve. Lastly, it is important to note that while the Gaston East-West Connector project will provide new road capacity, the new capacity will be priced (tolled), which serves as a</p>

Appendix B3 – Interest Group Comments

**Table B3-12: Southern Environmental Law Center
Document: i012/u002 letter dated July 21, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			demand management tool in addition to providing needed project financing.
48	Air Quality	Some states have formalized requirements to quantify GHG emissions and consider mitigation strategies.In other states, consideration of GHG emissions has followed a more informal path. In California, the state attorney general has directed local governments to consider GHG impacts on transportation and land use projects in order to comply with that state's environmental policy act (CEQA), leading private professionals to promulgate an informal handbook on "alternative approaches to analyzing [GHG] emissions and global climate change in CEQ A documents." In Washington, the executive of King County, which encompasses Seattle, has adopted a comprehensive order "requiring that adverse climate impacts be described for all projects that must complete State Environmental Protection Act documents, when the county is the lead or is permitting a project in unincorporated King County." These regulatory regimes derive their authority from various sources, which are often particular to the state or region where they apply. They demonstrate, however, that an established methodology for analyzing GHG emissions can be applied to evaluate the impacts of large-scale, GHG intensive projects such as the Gaston East-West Connector.	See responses to Comments 45 and 46 in the Southern Environmental Law Center's letter (Document i012/u002).
49	Air Quality	Recent federal case law makes clear that simply ignoring the significant GHG emissions of this project violates NEPA. Several federal courts have held that GHG emissions must be analyzed under NEPA in various situations relating to transportation, as well as major infrastructure projects. See <i>Border Power Plant Working Group v. Department of Energy</i> , 260 F. Supp. 2d 997 (S.D. Cal. 2003) (electric transmission lines); <i>Mid States Coalition for Progress v. Surface Transportation Board</i> , 345 F.3d 520 (8th Cir. 2003) (coal supply rail lines); <i>Center for Biological Diversity v. National Highway Traffic Safety Administration</i> , 538 F.3d 1172 (9th Cir. 2008) (promulgation of motor vehicle fuel efficiency standards). The Ninth Circuit's decision in <i>Center for Biological Diversity</i> bears particular significance for the DEIS and its neglect of climate change impacts, as it relates to GHG emissions from motor vehicles.	The Center for Biological Diversity case does not require FHWA to analyze greenhouse gas emissions in a project-level EIS. The Center for Biological Diversity case addresses USEPA's failure to establish fuel economy standards for light trucks. This case rectified what was known as the "SUV loophole" in emission standards and requires that SUVs, minivans, and pickup trucks be held to fuel emission standards similar to those for cars. This case cannot be read to require a greenhouse gas study for a proposed highway project.
50	Air Quality	The DEIS does not consider, or even mention, GHG emissions. At a minimum, the Agencies must model the GHG emissions of a reasonable range of project alternatives and consider whether they could accomplish the purpose and goals of the Project while limiting the GHG emissions. The Agencies must also detail available mitigation measures for limiting the GHG emissions that will result from this Project, and estimate the potential cost of offsetting the Project's GHG emissions impact, for example, based on projected permit prices per ton of carbon	Evaluating potential project costs or travel demand relative to a future cap and trade program is unreasonable and speculative because no such program exists at this time for transportation projects. State and federal agencies, including the USEPA and the NC Department of Environment and Natural Resources, were afforded the opportunity to comment on the Draft EIS and air quality analyses, and responses to their comments are included in Appendix B1 . Also, see responses to Comments 45 and 46 in

Appendix B3 – Interest Group Comments

**Table B3-12: Southern Environmental Law Center
Document: i012/u002 letter dated July 21, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		dioxide under a future cap and trade regime. Finally, the DEIS must detail how regulation of GHG emissions may affect travel demand and by extension toll revenues, and how this might affect the project's viability. The wholesale failure to consider GHG emissions from the Project is unreasonable, arbitrary and capricious. The Agencies should reissue a DEIS that evaluates the full range of GHG issues related to this Project.	the Southern Environmental Law Center's letter (Document i012/u002).
51	Water Resources	The DEIS fails to adequately analyze water quality impacts from the proposed project. The DEIS points out that a Draft 2008 303(d) list includes a growing number of water bodies in the Project Study Area, including Abernethy Creek, Crowders Creek, McGill Branch, Catawba Creek, and the South Fork Catawba River. The DEIS explains that these water bodies have "impaired use for aquatic life," and that urban stormwater runoff is most likely to blame for the impairment. But the DEIS gives little indication of how the Garden Parkway - which would open up some of the least urbanized areas of the Catawba watershed to sprawling development with a greatly increased amount of impervious surfaces-would not significantly magnify these impacts. The DEIS throws out a laundry list of "potential impacts to water quality that could occur under any of the DSAs." Yet, the DEIS fails to provide any detailed or quantitative analysis of how these impacts might be avoided, or how they will affect the attainment of water quality standards. It offers only the vague assurance that "impacts from erosion and sedimentation will be minimized by implementing control measures in accordance with NCDENR and NCDOT guidance," and that "an erosion and sedimentation plan will be developed for the Preferred Alternative in accordance with the Erosion and Sediment Control Planning and Design (NCDENR Division of Land Resources, June 2006) and Best Management Practices for the Protection of Surface Waters (NCDOT, March 1997).	The qualitative indirect and cumulative effects analysis, prepared for the Detailed Study Alternative in accordance with NCDOT guidelines and summarized in Chapter 7 of the Draft EIS, addresses water resources. A <i>Quantitative Indirect and Cumulative Effects Analysis</i> has been prepared for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS. This analysis provides additional information on potential water quality impacts. The NCTA will be required to obtain a Section 401 Water Quality Certification and a Section 404 Individual Permit for project impacts to Waters of the United States. Water quality modeling, which will include modeling of stormwater runoff, will be performed during the permit phase of the project.
52	Indirect and Cumulative Effects	The DEIS consideration of cumulative effects to water quality is even less informative. It concedes that "water resources having the potential to be cumulatively affected by non-point source pollution include the Catawba River, South Fork Catawba River, Abernethy Creek, Catawba Creek, Crowders Creek, and Blackwood Creek." The DEIS does not describe, though, "what non-point source control measures will be needed and how they are to be implemented," as required by DWQ policy. It does not detail "the nature of the discharge, including cumulative impacts to isolated and non-isolated wetlands," as directed by the North Carolina administrative code 15A NCAC 02H .1302. Instead, the DEIS simply states that "these effects"-whatever they may be - "can be minimized through implementation of local stormwater ordinances and Best Management Practices (BMP)."	The North Carolina Administrative Code 15A NCAC 02H.1302 describes the requirements for the content of an application for a Section 401 Water Quality Certification from the NC Division of Water Quality. The project is not at the permit phase yet. Section 6.4.5 of the Draft EIS states, "Implementation of any of the DSAs will require an Individual Permit from the USACE and a Section 401 Water Quality Certification from the NCDWQ for wetland and stream impacts."

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**Table B3-12: Southern Environmental Law Center
Document: i012/u002 letter dated July 21, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
53	Indirect and Cumulative Effects	The DEIS's treatment of the Project's likely water quality impacts creates the impression that they can be easily mitigated. The Transportation Agencies' actual analysis of these impacts, however, tells a different story: "Anticipated growth associated with the construction of the Gaston East-West Connector is expected to increase the amount of impervious surfaces within the ICE Study Area. Water Quality of the Catawba River is likely to be affected through the construction of buildings, parking areas and roadways. The volumes of non-point source pollution expected from the anticipated increase in impervious surfaces can be quantitatively analyzed to determine the significance of this effect. A quantitative analysis is outside the scope of the current study, yet the effect of increased impervious surfaces is believed to be substantial based solely on the amount of land having the potential to be developed as identified in this report." In other words, the Project's impact on water quality is "substantial" and it "can be quantitatively analyzed," but the DEIS inexplicably omits any such analysis.	The commenter attributes the quote in the comment to the <i>Natural Resources Technical Report for the Gaston East-West Connector</i> (Earth Tech, February 2008). However, this quote is from the qualitative <i>Indirect and Cumulative Effects Assessment for the Gaston East-West Connector</i> (Louis Berger Group, March 2009). The qualitative ICE report was completed in accordance with NCDOT guidance. As noted in Section 7.1.2 of the Draft EIS, "A quantitative assessment, involving Steps 6-8 in the <i>ICI Guidance</i> , would be conducted on the Preferred Alternative following the approval of the Draft Environmental Impact Statement (Draft EIS) if it is determined by the Federal Highway Administration (FHWA) and the North Carolina Turnpike Authority (NCTA) that such analysis is needed." The FHWA and NCTA determined that a quantitative analysis was needed for the Preferred Alternative and the study is summarized in Section 2.5.5 of the Final EIS.
54	Water Resources	Failure to examine water quality impacts from all reasonable alternatives is a derogation of the Agencies' duties under NEPA, and by extension, under §§ 404 and 401 of the CWA. NEPA requires that the Agencies "[d]evote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits." 40 C.F.R. § 1502.14(b). The superficial disclosure of project impacts in the DEIS falls far short of this standard. The DEIS focuses on relatively inconsequential differences between the myriad "detailed study alternatives,"-route variations of an otherwise identical toll toad alternative-instead of meaningfully informing the public about the Project's impacts on the area's water resources, not to mention the resulting burden of waste water treatment, land use, and other regulations that would be needed to offset those impacts.	The Draft EIS, Section 7.5 provided an appropriate level of discussion, in accordance with NCDOT guidance, regarding potential increases in residential and commercial development associated with the DSAs in order to be able to adequately compare alternatives. The Final EIS Section 2.5.5 includes the results of a quantitative indirect and cumulative effects analysis conducted for the Preferred Alternative.
55	Water Resources	The DEIS explains that, despite efforts to avoid and minimize wetlands impacts, "stream impacts will be greater than USACE and NCDWQ regulatory thresholds and will require compensatory mitigation." The DEIS, however, gives no indication of where this compensatory mitigation will take place. Even a "conceptual mitigation plan" remains among the Project's several "unresolved issues and areas of controversy."	A <i>Conceptual Mitigation Plan</i> was prepared for the Preferred Alternative to provide additional detail on potential off-site and on-site mitigation opportunities. The <i>Conceptual Mitigation Plan</i> is discussed in Section 2.5.4.4 of the Final EIS.
56	Water Resources	The Catawba watershed is a difficult one in which to find suitable mitigation sites, and according to the Transportation Agencies' own analysis, the Project will have substantial impacts on water quality in the area. The DEIS should describe the appropriate compensatory mitigation measures that would qualify the Project for state and federal permits.	A <i>Conceptual Mitigation Plan</i> was prepared for the Preferred Alternative to provide additional detail on potential off-site and on-site mitigation opportunities. The <i>Conceptual Mitigation Plan</i> is discussed in Section 2.5.4.4 of the Final EIS.

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**Table B3-12: Southern Environmental Law Center
Document: i012/u002 letter dated July 21, 2009**

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
57	Water Resources	The DEIS fails to acknowledge any lost functions or features of the Catawba watershed that would be degraded by the project, much less identify the specific mitigation measures that could replace them. The brief "Mitigation of Impacts" section in the DEIS reproduces a random list of "examples of Best Management Practices for erosion and sedimentation control." Federal courts have held that "the 'mere listing' of mitigation measures and processes, without any analysis, cannot support a cumulative impacts determination" under NEP A. <i>Ohio Valley Env'tl. Coalition v. Hurst</i> , 604 F. Supp. 2d 860,887 (S.D. W. Va. 2009) <i>citing Nat'l Parks & Conservation Ass'n v. Babbitt</i> , 241 F.3d 722, 734 (9th Cir. 2001). The hodgepodge of mitigation "examples" offered by the DEIS cannot support such a determination either.	Section 6.2.4 of the Draft EIS lists examples of Best Management Practices in a discussion of what types of measures may be included in the erosion and sedimentation control plan that will be required for the project's direct impacts. Cumulative impacts are discussion in Chapter 7 of the Draft EIS. The Final EIS Section 2.5.5 includes the results of a quantitative indirect and cumulative effects analysis conducted for the Preferred Alternative, including a discussion of water quality.

Marshall Willis
South New Hope Road Committee

14 June 2009

Jennifer Harris, PE
1578 Mail Service Center
Raleigh, N.C. 27699-1578

Since the original concept line was drawn in 1989, members of our community have lived with the Gaston East West Connector centerline being through our community.

I have attempted to represent our community and express to NC DOT engineers the alternate routes that would not displace as many homes and would be less expensive.

1 The enclosed map noting segment 1 Catawba River to New Hope Road shows the NC DOT preferred route which was prepared and submitted by Alpesh Patel, PE, NC DOT Engineer in 1992.

We have never opposed the Parkway and have only objected to the route that was always assumed to be the route desired by NC DOT but in reality was only a concept line from the start of this process over 20 years ago.

Due to previous scheduling, I will not be available to attend either of the public hearing due to being out of town, but we would like to make the following request.

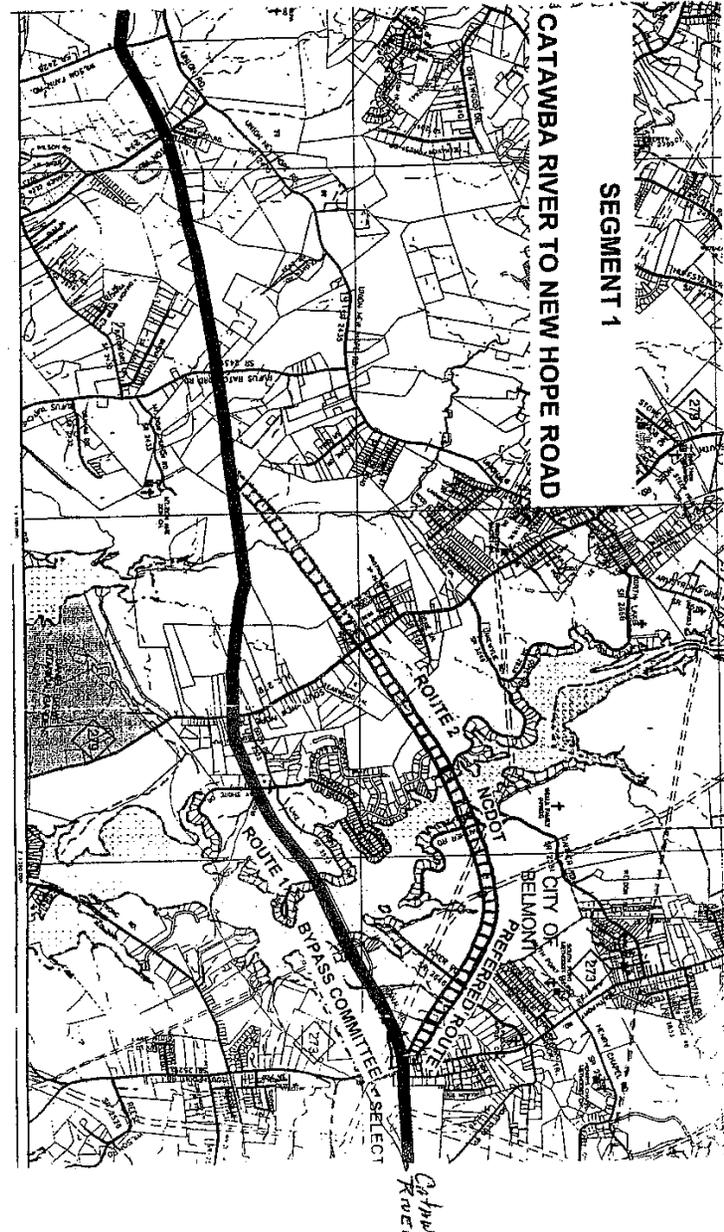
2 If the Alternate 9 recommended route gets final approval and funding is not available, it is respectfully requested that route be designated and Gaston County be asked not to issue building permits within the ROW of the route to allow private property to be sold outside the ROW without having to notify buyers of possibility of the road taking the property or selling at a large financial loss.

3 Having been in this position for over twenty years, the recent announcement of the northern route being recommended has been a relief but we know that some things can change very quickly.

Thank you for taking the time to review the content of this letter and please know that we will support the new Parkway and realize that this is not a TOLL ROAD TO NO WHERE, but a much needed link in solving the traffic problems for our area of the State of North Carolina.

Sincerely,

Marshall B. Willis
MARSHALL B. WILLIS



Appendix B3 – Interest Group Comments

Table B3-13: South New Hope Road Committee

Document: i013 letter dated June 14, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Alternatives Considered	<p>The enclosed map noting segment 1 Catawba River to New Hope Road shows the NC DOT preferred route which was prepared and submitted by Alpesh Patel, PE, NC DOT Engineer in 1992.</p> <p>We have never opposed the Parkway and have only objected to the route that was always assumed to be the route desired by NC DOT but in reality was only a concept line from the start of this process over 20 years ago.</p>	<p>Figure 2-6(a-b) shows the preliminary corridor segments studied as part of the EIS. The segment on the commenter's map labeled "Route 1 Bypass Committee Select" was considered as part of the study, shown as Preliminary Corridor Segments F5 and G3. The segment on the commenter's map labeled "Route 2 NCDOT Preferred Route" was considered as part of the study, shown as Preliminary Corridor Segments E-X9, F-X9a, F4F8, and G-X13. The Preferred Alternative (Detailed Study Alternative 9) crosses the South Fork Catawba River in the same location as the "Route 2 NCDOT Preferred Route", but crosses NC 273 (Southpoint Road) farther north.</p> <p>Preliminary Corridor Segment G3 was eliminated because it would pass through the area reserved on the Duke Energy Plant Allen Steam Station property for air pollution control equipment. The Preliminary Corridor Segment F5 was retained as a functional design corridor and renamed Functional Design Corridor KX2, as shown on Figure 2-7. It was not identified as a Detailed Study Corridor for the reasons outlined in Section 2.3.4.2 of the Draft EIS.</p>
2	Right-Of-Way Acquisition and Relocations	<p>If the Alternate 9 recommended route gets final approval and funding it not available, it is respectfully requested that the route be designated and Gaston County be asked not to issue building permits within ROW of the route to allow private property to be sold outside the ROW without having to notify buyers of possibility of the road taking the property or selling at a large financial loss.</p>	<p>Local land use controls, including building permits, are under the jurisdiction of local governments, and the NCTA has no jurisdiction over such decisions. Local governments and agencies have been involved in project coordination and been made aware of the Preferred Alternative.</p>
3	Comment Noted	<p>Having been in this position for over twenty years, the recent announcement of the northern route being recommended has been a relief but we know that some things can change very quickly.</p> <p>....please know that we will support the new Parkway and realize that this is not a TOLL ROAD TO NO WHERE, but a much needed link in solving the traffic problems for our area of the State of North Carolina.</p>	<p>Comment acknowledged.</p>

William W. Toole
714 Ann Street
Belmont, NC 28012

July 17, 2009

VIA Facsimile and US Mail

Mr. Steven Lund
US Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

Re: Gaston East-West Connector – Corps Action ID # SAW-2009-0909 (Project)
Citizen Comments upon Draft Environmental Impact Statement of April 24, 2009

Dear Mr. Lund:

I write to provide comments upon the Federal Highway Administration Draft Environmental Impact Statement of April 24, 2009 (DEIS) prepared by the Federal Highway Administration, the North Carolina Department of Transportation (NCDOT), and the North Carolina Turnpike Authority (Turnpike Authority) (collectively, Transportation Agencies) with regard to the Project. The Corps has solicited comments upon (a) the merits of the Project, (b) the alternatives evaluated in the DEIS, and (c) the expected adverse and beneficial effects of the Project.

1 The Project fails to meet the stated purposes of reducing congestion and substantially
improving east-west connectivity. Therefore, the Project has no merit. Because the
2 Transportation Agencies have summarily rejected without meaningful analysis
practicable alternatives (such as establishing High Occupancy Toll (HOT) lanes on I-85,
improving existing transportation facilities, and transportation demand management, or
mass transit) no § 404 permit may be issued. Moreover, the expected adverse effects of
3 uncontrolled suburban sprawl through agricultural lands that lack municipal water and
sewer outweigh the marginal benefits of the Project. For these reasons, the Corps must
conclude that the Project cannot be approved for a permit under section 404 of the Clean
Water Act.

PROJECT FACTS

The Project is a proposed \$1.2 billion six lane toll road with a design speed of 70 miles
an hour plan that would run west from I-485 south of the Charlotte-Douglas Airport

across southern Gaston County. As conceived, the Project would cross US 321 south of
Gastonia, then turn north to join I-85 west of Gastonia.

Traffic studies have determined that toll revenue is not sufficient to pay for the entire
Project. The North Carolina legislature has committed \$35 million annually in state
funds to fill the gap in toll revenues. This gap funding is only sufficient to construct a
single phase of the Project, from I-485 to US 321 south of Gastonia. Building the second
phase of the Project would require the General Assembly to find and commit another \$20
million to \$25 million a year in gap funding, which experts say is highly unlikely in the
current state budget crisis.¹ The North Carolina Turnpike Authority states “[t]he most
likely western interim terminus is currently US 321”² The DEIS provides no
evaluation reflecting Project termination at US 321.

The stated purpose of the Project is to (1) improve traffic flow and safe travel on I-85, US
29/74 and US 321 in the Project Study Area, and (2) improve east-west connectivity
within Gaston County and between Gaston County and Mecklenburg County.³ To meet
the purpose and need, an alternative “must provide more than a minor improvement. . . .
Alternatives that provide only a minor improvement do not meet the purpose and need,
and therefore are not reasonable alternatives.”⁴

When first conceived in the late 1990’s, the Project was intended to support the logistical
needs of the planned intermodal facility at the Charlotte Douglas Airport, and to stimulate
manufacturing and industrial development along the Project. Such jobs would have fit
the skills of the Gaston County employee base, 24 % of whom do not have a high school
diploma or equivalent, and another 59 % of whom have no more than a high school
diploma or GED.⁵

A combination of factors, including the price of land, the failure to connect to I-85, and a
structural economic change away from manufacturing and industrial activity, means the
Project will not provide the economic stimulus promoters had originally hoped. The
current hope is that the Project will stimulate the development of expensive housing
projects, high end retail, and office parks⁶ in what is now largely agricultural and pasture

¹ “Hoyle not optimistic about Garden Parkway,” Gaston Gazette, p. 1A (April 4, 2009) (Attachment 1).

² Frequently Asked Questions, p. 1 (June 2009), prepared by the North Carolina Turnpike Authority
(Attachment 2). Found at <http://www.ncturnpike.org>

³ DEIS, p. 1-3.

⁴ *Id.*

⁵ U.S. Census Bureau, 2005-07 Fact Sheet, Gaston County. Found at
http://factfinder.census.gov/home/saff/main.html?_lang=en

⁶ A traffic scenario presented by the North Carolina Turnpike Authority at public meetings and located on
its website shows roughly 90% of the traffic will be commuter. Local Officials Meeting, “Gaston East
West Connector (Garden Parkway) Forecasted Daily Traffic Volumes and Truck Percentages” (slide 10)
(June 22, 2009) (Attachment 3 (excerpt)). Also found on the North Carolina Turnpike Authority website

land. Local economic development officials have warned that the Project poses the real risk of siphoning retail activity from established retail corridors along I-85 and the municipal downtowns. The DEIS provides no evaluation reflecting the type of development that would be stimulated by the Project, or the indirect and cumulative impacts of such development upon the existing community.

THE PROJECT ACTUALLY INCREASES CONGESTION ON I-85, US 29/74, AND US 321, RATHER THAN PROVIDING THE REQUIRED SUBSTANTIAL IMPROVEMENT, AND THEREFORE FAILS TO MEET THE STATED PURPOSE.

“[T]he Corps will in all cases exercise independent judgment in defining the purpose and need from the project from both the applicant’s and the public’s perspective.”⁷ To meet the purpose and need, an alternative “must provide more than a minor improvement. . . . Alternatives that provide only a minor improvement do not meet the purpose and need, and therefore are not reasonable alternatives.”⁸

A primary purpose of the Project is to improve traffic flow and safe travel on I-85, US 29/74 and US 321 in the Project Study Area.⁹ The Project fails to meet the stated purposes of decreasing congestion.

Table C-3 of the DEIS shows that traffic would operate at the same or worse level of service on US 29/74 if the Project is completed to I-85, compared to the No-Build scenario.¹⁰ With one exception, table C-2 shows no improvement to the level of service on I-85 if the Project is completed to I-85.¹¹ The levels of service on US 321 are reported to be similar for all scenarios.¹² The DEIS does not demonstrate the substantial improvement to traffic flow on I-85, US 29/74, or US 321 that is required to meet the stated Project purpose.

The DEIS contains no evaluation at all of the effect of terminating the Project at US 321, which the North Carolina Turnpike Authority states is the likely western terminus.¹³ In

⁷ <http://www.ncturnpike.org>. Though the document is not found in the DEIS, the North Carolina Turnpike Authority maintains the information is part of the public record supporting the Project.

⁸ 33 C.F.R. § 325, App. B 9(c)(4).

⁹ *Id.*

¹⁰ DEIS, p. 1-3.

¹¹ DEIS, App. C, pp. C-7 through C-8.

¹² DEIS, App. C, p. C-6.

¹³ DEIS, App. C., p. C-9.

¹⁴ Frequently Asked Questions, p. 1 (June 2009), prepared by the North Carolina Turnpike Authority (Attachment 2).

response to a substantial number of questions from the community, the North Carolina Turnpike Authority ultimately presented a June 2, 2009 study comparing various traffic scenarios at US 321, including that of terminating the Project there. The study shows the following daily traffic counts in the year 2030 and demonstrates that constructing the Project increases traffic on I-85 at US 321.¹⁴

I-85 Daily Traffic West of US 321			I-85 Daily Traffic East of US 321		
No Toll Road	Dead End into 321	Connected to I-85	No Toll Road	Dead End into 321	Connected to I-85
119,200	132,500	124,400	134,600	139,300	137,600

All the scenarios show I-85 operating over capacity. This analysis of the Project clearly shows improve congestion on I-85 does not improve.

Similarly, the June 2, 2009 study shows traffic on US 321 increasing if the Project is constructed, compared to the No Build Scenario. At some sections, the increase over the No-Build scenario is as much as 87%, and the level of service demonstrably deteriorates in one section if the Project is constructed. This June 2 study demonstrates why it is necessary to require the Transportation Agencies to evaluate the effects of terminating the Project at US 321 and provide an opportunity for full public evaluation prior to taking any final agency action.

In an effort to explain why the Project toll road should be built in spite of the fact that it increases pressure on I-85, Jennifer Harris, project engineer for the North Carolina Turnpike Authority, told the Belmont BannerNews that the purpose of the toll road “is not to alleviate congestion on I-85.”¹⁵ Another North Carolina Turnpike Authority representative repeated this conclusion at a public forum on July 9.

Since the conceptual stage of the project, relieving congestion on I-85 has been a primary reason for building the east-west connector. The 2030 Long Range Transportation Plan by the Gaston Urban Area MPO, for example, states that the purpose of the toll road is to “serve as a bypass to Interstate 85, US 29/74 and US 321” and a “reliever to I-85 and US 29/74.”¹⁶ The draft Environmental Impact Statement prepared by the Turnpike Authority declares that the purpose of the toll road is “to improve traffic flow on the sections of I-

¹⁴ Gaston East-West Connector (Garden Parkway) Preliminary Daily Traffic Volumes (June 2, 2009) (Attachment 4). The document was handed out at meetings by the North Carolina Turnpike Authority and may also be found on the North Carolina Turnpike Authority website <http://www.ncturnpike.org>. Though the document is not found in the DEIS, the North Carolina Turnpike Authority maintains the information is part of the public record supporting the Project.

¹⁵ Belmont Banner News, p. 1 (July 1, 2009) (Attachment 5).

¹⁶ 2030 Long Range Transportation Plan, Gaston Urban Area Metropolitan Planning Organization, p. 71 (May 24, 2005) (Attachment 6 (excerpt)).

85, US 29-74 and US 321” in the study area, and to “reduce congested vehicle miles travelled” compared to traffic if the Project is not built.¹⁷ Because the toll road does not meet the basic purpose of relieving traffic congestion, the Project has no merit.

THE PROJECT DOES NOT SUBSTANTIALLY IMPROVE CONNECTIVITY WITHIN GASTON COUNTY OR BETWEEN GASTON AND MECKLENBURG COUNTIES.

The Transportation Agencies estimate that travel between downtown Gastonia and south Belmont on this \$1.2 billion toll road will decrease 1 to 3 minutes in 2030.¹⁸ Travel from downtown Gastonia to the South Point Road interchange would save 2 minutes in 2030.¹⁹ This savings is minimal, is not sufficient to warrant the disruption the Project will cause, and Gaston County residents are not likely to pay for such minimal time savings.

9 If DEIS estimates are to be believed, in 2030 residents on the Belmont Peninsula will save 23 minutes travelling to the Charlotte Douglas Airport by taking the toll bridge. This time savings occurs in part because the No-Build alternative is estimated to take 57 minutes.²⁰ Currently, MapQuest shows the trip taking 17 minutes.²¹ For the proposed travel savings to be correct, traffic on South Point Road and Wilkinson Boulevard must become so congested that the trip increases by 40 minutes, a two hundred percent increase in 20 years. This simply is not credible.

It is probable that from the US 321/Robinson Road interchange to the airport would see improved travel times over the toll road. The fact is, however, that Google Maps shows there is no development at the US 321/Robinson Road interchange and it is not a travel destination. The Project provides no meaningful, credible improvement in east-west connectivity, and certainly is not worth the impacts it will cause to the environment and the community. The sole effect of the Project is to induce development of new destinations to a part of the county that is currently rural, not provide connectivity between existing destinations.

¹⁷ DEIS, p. 1-3.

¹⁸ Gaston East-West Connector Citizens Summary, Draft Environmental Impact Statement, p. 5, (April 2009).

¹⁹ DEIS, App. C, Table C-4 p. C-11.

²⁰ DEIS, App. C, Table C-5, p. C-12.

²¹ See Attachment 7. Ground truthed during morning rush hour, the trip actually takes 12 minutes.

THE TRAFFIC PROJECTIONS OVERSTATE THE ACTUAL TRAFFIC, AND THEREFOR OVERSTATE THE FORECASTED CONGESTION.

The DEIS describes traffic volumes for the base year 2006 as “existing,”²² yet comparison of these figures to traffic volumes observed in 2007 by the NCDOT Traffic Survey Group²³ shows the 2006 figures to be inflated estimates. The following table compares a few of the DEIS “existing” traffic estimates with data from the NCDOT’s Traffic Survey Group.

I-85 Segment				
From	To	DEIS 2006 Projection	Actual Observed Volume (2007) ²⁴	Discrepancy
Exit 17	Exit 19 - NC 7 (Ozark Ave)	97,400	96,000	1,400
Exit 19	Exit 20 – NC 279 (New Hope Rd)	109,600	102,000	7,600
Exit 20	Exit 21 – Cox Rd (SR 2200)	111,200	106,000	5,200
Exit 26	Exit 27 – NC 273 (Park Street)	126,800	117,000	9,800
US 29-74 Segment				
Lakewood Rd	NC 273 (Park Street)	33,600	17,000	16,600
NC 273 (Park St)	NC 7 (Catawba St)	43,700	20,000	23,700
US 321 Segment				
W Airline Ave	W Rankin Ave	21,400	8,300	13,100
Forbes Rd	Crowders Creek Rd	13,500	11,000	2,500

10 The DEIS appears to have consistently overestimated the “existing” traffic volume along each of the major roadways in the project area. This leads to inflated traffic congestion projections. The failure to accurately reconcile the 2006 estimates with the 2007 observed data further corrodes the credibility of the long-term model projections.

²² DEIS, Tables 1-1, 1-2, 1-3, and 1-4, pp. 1-14 through 1-17.

²³ NCDOT Traffic Survey Group, AADT Traffic Volume Maps (2007 Spreadsheet) found at http://www.ncdot.org/doh/PRECONSTRUCT/tpb/traffic_survey/

²⁴ See NCDOT Traffic Survey Group, AADT Traffic Volume Maps (2007 Spreadsheet) found at http://www.ncdot.org/doh/PRECONSTRUCT/tpb/traffic_survey/.

PRACTICABLE ALTERNATIVES EXIST WHICH THE TRANSPORTATION AGENCIES HAVE FAILED TO EVALUATE IN ANY MEANINGFUL WAY.

There is a presumption against issuing a § 404 permit since the Project is not water dependent and there are practicable alternatives having less impacts on waters of the United States.²⁵ An alternative is practicable if it is “available” and “feasible.”²⁶ The level of alternatives analysis must be commensurate with the 7.5 acres of wetlands and 48,995 linear feet of streams estimated to be directly impacted by Design Study Alternative 9²⁷ and the \$1.2 billion cost of the Project.²⁸ “Generally, as the scope/cost of the project increases, the level of analysis should also increase.”²⁹

11 The DEIS cursorily reviews, then summarily concludes, that a number of alternatives, including High Occupancy Toll (HOT)/High Occupancy Vehicle (HOV) on I-85, expanded mass transit, upgrading the existing road system, or some combination of these, fail to meet or exceed the defined purpose and need. Of course, the Transportation Agencies then fail to apply the same standard of success to their preferred alternative of Project construction.

For example, the Transportation Agencies summarily reject the Transportation Demand Alternative because “travel times would not be noticeably reduced” and it would not “noticeably improve” congestion on I-85, US 29/74 and US 321.³⁰ It does not appear the Transportation Agencies reviewed any empirical data. As shown above, the Project does not noticeably reduce travel times, and it actually increases congestion on the target roads. The Transportation Agencies seem to have applied a more stringent standard to the Transportation Demand Alternative than to its review of the Project.

12 The Transportation Agencies concluded that Mass Transit Improvements on Existing Locations (consisting of bus or rail service) would not attract enough trips to noticeably reduce vehicle miles travelled or congestion.³¹ The DEIS does not contain any study to support this conclusion. The community experience is that the before the economic downturn, demand for the Gastonia Express bus to uptown Charlotte was so great in July 2008 that there was standing room only on each of the four buses for the 7,400 riders. The Transportation Agencies also reject the alternative because buses would travel on

²⁵ 40 C.F.R. § 230.10(a)(3).

²⁶ 40 C.F.R. § 230.10(a)(2).

²⁷ DEIS, p. 6-25 and Table 6-5.

²⁸ Regulatory Guidance Letter, No. 93-2, “Guidance on Flexibility of the 404(b)(1) Guidelines and Mitigation Banking” 11, at § 3 (Aug. 23, 1993).

²⁹ *Id.*

³⁰ DEIS, p. 2-7.

³¹ DEIS, p.2-9.

roadways operating at poor levels of service E or F.³² The DEIS fails to apply the same criteria and reject the Project, even though the Project does not improve level of service over the No-Build alternative and actually causes level of service to deteriorate on some portions of the target roadways.

13 The DEIS analysis of the Improve Existing Roadways Alternative is particularly disheartening. For example, the April 24 DEIS failed to review and consider the Charlotte Region Fast Lanes Study (draft Final Report March 2009) which concluded that a High Occupancy Toll (HOT) lane option was feasible, could be constructed in existing I-85 right of way, would save commuters 19 minutes, and unlike the Project would be fully self-supporting (construction and O&M) from toll revenues.³³ The DEIS rejected the Improve Existing Roadways Alternative without detailed study and for summary conclusions that are now redundant (and at direct odds with other professional studies) – travel times would not improve compared to the No-Build alternative, failure to provide east-west connectivity, and failure to improve level of service.³⁴

14 The Transportation Agencies have not engaged in an objective evaluation of the alternatives using empirical data. Compared to their willingness to overlook the same deficiencies with the Project, the Transportation Agencies have not conducted a good faith review of the practicable alternatives. For this reason, the Corps must conclude that the Project is not eligible for a § 404 permit.

THE TRANSPORTATION AGENCIES HAVE FAILED TO PROPERLY CONSIDER THE INDIRECT EFFECTS AND CUMULATIVE IMPACTS OF THE PROJECT AS IT WILL BE IMPLEMENTED.

Indirect effects are those “caused by the action and . . . later in time or farther removed in distance, but . . . still reasonably foreseeable.”³⁵ This means the Corps is required to consider the impacts the construction of a road would nearby.³⁶ The Corps is also required to evaluate the impacts of spinoff development deriving from the Project.³⁷ When determining the weight of the impacts the project, the Corps must consider whether

³² *Id.*

³³ Charlotte Region Fast Lanes Study (draft Final Report) (March 2009), pp. 3-8, 4-16, 5-2, 5-5, found at <http://www.charmeck.org/fastlanes/home.htm>. The Regional Technical Team included representatives from Charlotte Department of Transportation, North Carolina Department of Transportation, Gaston Urban Area Metropolitan Planning Organization, the North Carolina Turnpike Authority, and other transportation organizations. *Id.*, pp. 2-1 through 2-2.

³⁴ DEIS, pp. 2-18 through 2-20.

³⁵ 40 C.F.R. § 1506.8.

³⁶ *Pye v. United States*, 269 F.3d 459 (4th Cir. 2001) (rejecting argument that only impacts within the footprint of the road project need be considered).

³⁷ Regulatory Guidance Letter, No. 88-11, “Mall Properties, Inc. v. Marsh” (Aug. 22, 1988).

another project not requiring a permit could likely occur and whether its impacts would be similar to the impacts of the Project which requires a permit.³⁸

1.5 [The Transportation Agencies have failed to evaluate the effects of the reasonably foreseeable – indeed probable – reality that the Project will dead-end into US 321 for decades, and perhaps forever. This reality has the potential to have direct impacts upon two historic neighborhoods located along US 321.

As the June 2, 2009 study indicates, the dead-ending of the Project into US-321 is a significant change in Project implementation that has the potential to have seriously different environmental impact from that which has been presented by the Transportation Agencies in the DEIS. Federal transportation regulations require the Transportation Agencies to re-evaluate a phased project “if major steps to advance the action... have not occurred within *three years* after the approval of the final EIS.”³⁹ Because it is evident that financing will not be available to implement the second phase for decades, the Transportation Agencies have an obligation to evaluate the Project now as if the Project terminates at US 321, as well as based upon the assumption that the Project terminates at I-85. The Corps and the public have a need to understand what the potential impacts of this probable termination point are, and the Transportation Agencies have an obligation to provide that information.⁴⁰

1.6 [Furthermore, the DEIS has not adequately evaluated the indirect effects and cumulative impacts of constructing a transportation facility that is designed to promote suburban sprawl in what is principally agricultural land and pastures. The area to be served by the Project does not have municipal water and sewer, and none is planned for much of the area.

1.7 [The DEIS fails to account for the fact that the withdrawal of the North Carolina State Implementation Plan means the MUMPO and GUAMPO transportation plans have now lapsed into a one year conformity grace period. At no point does the DEIS address the fact that by promoting suburban sprawl, the Project will substantially increase vehicle emissions of ozone precursors and contribute to the region’s ozone problem, currently

³⁸ Regulatory Guidance Letter, No. 88-13, National Environmental Policy Act (NEPA) Scope of Analysis and Alternative,” p.3, para. 7 (Nov. 3, 1988).

³⁹ 23 C.F.R § 771.129(b) (2000) (emphasis added). See also DOT Order 5610.1d, Item 22 (2000); See also DOT Order 5610.1c, Item 19 (1979).

⁴⁰ *Hickory Neighborhood Defense League v. Skinner*, 893 F.2d 58, 63 (1990) (requiring an EIS supplement if a new circumstance “presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned.”). The Transportation Agencies have a “continuing duty of examination,” even after the issuance of a final EIS. *Jersey Heights Neighborhood Ass’n v. Glendening*, 174 F.3d 180, 190 (1999). This continuing duty is also embodied in the DOT’s requirement that the agency issue a written reevaluation “if major steps to advance the action... have not occurred within *three years* after the approval of the final EIS.” 23 C.F.R § 771.129(b) (2000) (emphasis added). Because it is evident that financing will not be available to implement the second phase for decades, the Transportation Agencies have an obligation to evaluate the Project as if it were to terminate at US 321 as well as at I-85.

1.8 [designated “serious.” Given the fact that the region has been unable to reduce its baseline ozone levels, it is likely specific enforceable actions and transportation control measures will have to be adopted to control vehicle emissions. The DEIS fails to evaluate the impacts of the Project on an already serious regional ozone problem.

1.9 [The DEIS fails to evaluate how the required wetlands compensatory mitigation will be implemented. In fact, the DEIS states that even a “conceptual mitigation plan” is one of the several “unresolved issues and areas of controversy.”⁴¹ Securing suitable compensatory wetland mitigation sites within the lower Catawba River watershed is a well-recognized problem,⁴² and both the Corps and the public have a need to understand how the Transportation Agencies propose to address this issue.

* * *

I thank the Corps for its review of the Project and these comments. The Project is very controversial within the community due to many of the problems identified above.

For the reasons stated above, I ask that the Corps conclude the Project fails to meet the stated purpose and need and has practicable alternatives. I ask further that the Corps require additional evaluation of the indirect effects and cumulative impacts of the Project, and that such additional evaluation include those relating to termination of the first phase of the Project at US 321 and the effects upon the regional ozone serious non-attainment status. Finally, I request that the Corps require the Transportation Agencies to develop and submit for public comment a compensatory wetland mitigation plan.

Sincerely,

William W. Toole

⁴¹ DEIS, Appendix S, p. S-16.

⁴² Program Assessment and Consistency Group (PACG). Memorandum re Expanded service area for mitigating impacts within the Lower Catawba River Basin, Oct. 8, 2008 (recognizing that “securing suitable mitigation in the Catawba 03 sub-basin continues to be problematic.”).

ATTACHMENT 1

Hoyle not optimistic about Garden Parkway

By Michael Barrett mbarrett@gastongazette.com

GARDEN PARKWAY QUICK FACTS

Eventual length, from I-485 in Charlotte to I-85 west of Gastonia, would span between 21.5 and 23.7 miles Total construction of first leg, from I-485 to U.S. 321, would cost an estimated \$910 million Using the toll road would cost motorists an average of 10 to 20 cents per mile Electronic transponders would monitor cars that use the parkway to enable billing Surveillance equipment would be capable of photographing license plates of vehicles traveling as fast as 100 mph By law, the tolls must be removed when the construction bonds are paid off — more than 40 years from now North Carolina will be the second to last state on the eastern seaboard to add toll roads; Connecticut also has none

— N.C. Turnpike Authority

When N.C. Sen. David Hoyle helped to secure critical funding for the Garden Parkway last year, it seemed the long delayed project might finally materialize.

But a plan to build half of the toll road by 2015 and finish the final span years later doesn't sit well with many local officials. And the costly notion of constructing the entire parkway at once makes it more likely that the project may have to be put on hold or revamped, Hoyle said Thursday.

"If (the needed) money cannot be secured, then the chance of the parkway becoming a reality in the near future is very diminished," said Hoyle, D-Gaston.

Hoyle's assessment comes as the N.C. Turnpike Authority is preparing to release its draft environmental impact statement on the Garden Parkway this month. The document will recommend which of two potential routes the toll road should take over the Catawba River — a decision eagerly awaited by residents south of Belmont and areas to the west that may fall within its path.

In recent months, some transportation officials have also criticized the plan to spend so much money on the Garden Parkway and questioned its importance. Other regional projects, such as the need to widen I-77 or complete I-485 around Charlotte, have received increasing attention.

Hoyle said he hopes to see the Turnpike Authority's suggestion on the parkway route within the next two weeks.

"The people who are in the potential routes of this road need to be informed pretty soon about the recommendations for where it will go," he said. "And I need to inform them of whether this isn't likely to happen.

"I would say it's not going to be easy to get it done."

All or nothing?

The Garden Parkway was first pitched two decades ago, but its high cost spurred the first discussions about building toll roads in North Carolina. It is now one of several toll projects planned across the state.

The current model, at a cost of more than \$1.2 billion, would take the parkway more than 20 miles from I-485 near Charlotte Douglas International Airport to I-85 west of Gastonia. Proponents have long said it would provide another important crossing over the Catawba River and promote development in south Gaston County.

Continued from Page 1A

Toll fees alone aren't enough to make loan payments on the bonds for each road, so "gap funding" is necessary to make up the difference. Last year, Hoyle helped to secure gap funding of \$35 million a year for 40 years from the General Assembly for the Garden Parkway.

But that would only support construction of the first leg of the road, from I-485 to U.S. 321 south of Gastonia, at an estimated cost of \$910 million. The second section might not open until several years later. Gastonia city leaders and legislators have said that's unacceptable, since it could cause more gridlock on U.S. 321.

"The city of Gastonia — and I'm in agreement with them — is finding real heartburn with that," said Hoyle. "Because we cannot terminate that (parkway) for any length of time and have literally thousands of trucks and cars going through downtown Gastonia. It just can't work."

Building the entire parkway at once would require the General Assembly to find and commit another \$20 million to \$25 million a year in gap funding, Hoyle said, which simply doesn't seem likely in the current economy.

"This is not a good time to be looking for \$25 million per year for 40 more years," he said. "We are faced with very, very difficult economic times."

The present landscape has put every road project in North Carolina in jeopardy. Less federal money is coming in to build and maintain highways. Gas taxes, highway use taxes, vehicle sales taxes and corporate use tax revenues are all down, depleting the pot of money the state has to work with.

Short-term

U-001

alternatives

If the Garden Parkway has to be shelved again, Hoyle said building another crossing over the Catawba River would still be critical. That considerably cheaper alternative could buy some time over five or 10 years until more money were found to build the parkway, he said.

The bridge might be built in whatever location the Turnpike Authority recommends later this month, and could eventually become the parkway crossing. Its construction would also have to be accompanied by improvements to secondary routes that lead to it, widening connectors such as South Point, Lower Armstrong, South Union and South New Hope roads, Hoyle said.

"It wouldn't be the parkway we're looking for, but it would ensure we don't have gridlock on our highways between Gastonia and Charlotte in the next few years," he said. "It would be a serviceable way to get across the river and an interim fix."

Gap may be too wide

The pressure to pay for projects such as the Garden Parkway could increase if funding prospects don't pan out, said Ted Vaden, deputy secretary of communications for the N.C. Department of Transportation.

Consultants project the parkway would carry about 40,000 cars a day over the Catawba River by 2030, and between 13,000 and 18,000 cars per day west of U.S. 321. Depending on how smoothly the first leg of the Garden Parkway construction proceeds, the General Assembly could decide to reroute the \$35 million in gap funding to another project, Hoyle said.

David Joyner, executive director of the N.C. Turnpike Authority, said he thinks a piecemeal parkway would be better than nothing for Gaston and surrounding counties.

"In the tolling business, we can only bond what we can repay," said Joyner. "We've value-added this project to the point where we can at least get it going to U.S. 321. If that's not what the county wants to do, somebody needs to let us know."

Hoyle, long the Garden Parkway's lead advocate, said he doesn't feel optimistic about getting as much as \$60 million a year in gap funding.

"I can't be a hypocrite and say I'm going to get this money," he said. "I have a pretty good track record of getting things down here, but I'm not Houdini."

"Right now, there ain't much money in the hat."

You can reach Michael Barrett at 704-869-1826.

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ATTACHMENT 2

FAQs

Frequently Asked Questions

Garden Parkway
STIP No. U-3321

June 2009

To date, the North Carolina Turnpike Authority has heard from many interested citizens prior to, and as part of, the public review process for the Gaston East-West Connector (Garden Parkway) Draft Environmental Impact Statement (Draft EIS). Brief answers to some of the most frequently asked questions are provided below.

If you have other questions or would like additional information, please email the project team at gaston@ncturnpike.org or call the project hotline at 1-800-475-6402.

PROJECT HISTORY AND STUDIES

How did the project originate?

Projects begin at the local level. In the 1990s, the Gaston Urban Area Metropolitan Planning Organization led an effort to develop a corridor for the Garden Parkway to include on their Thoroughfare Plan. Local officials propose roadway projects from the Thoroughfare Plan to be included on the local Long Range Transportation Plan. Local officials set priorities for projects and work with the North Carolina Department of Transportation to include projects in the State Transportation Improvement Program (STIP) to receive state and/or federal funds. This project continues to be one of the highest priority projects for this region.

What is a Draft Environmental Impact Statement (Draft EIS) and what does it mean?

It is a document based on federal law – the National Environmental Policy Act (NEPA). The NEPA requires federal agencies to consider the potential environmental consequences of their proposal, document their analyses, and make this information available to the public for comment prior to project implementation.

What does the Draft EIS for the Garden Parkway include?

The Draft EIS addresses the following questions: why is a project needed; what are the reasonable alternatives for the project; what are the impacts, both positive and negative, of the 12 Detailed Study Alternatives; and what can be done to mitigate impacts. It also summarizes public and agency coordination.

SCHEDULE AND PHASING

Is the project going to end at US 321?

No. The project limits are from I-485 on the east end to I-85 on the west end. However, construction of large transportation projects such as the Garden Parkway, I-485 in Charlotte, I-540 in Raleigh, etc. are typically constructed in phases as funding becomes available. Construction phases are determined after the environmental planning phase is completed based on availability of funding. Construction of individual phases or segments must have endpoints at an interchange or intersection with another road. The segment from I-485 to US 321 is a likely first phase for the project, but this will depend on funding available at the time the project is ready to be constructed.

The intent is to build the ultimate project from I-485 to I-85 as soon as possible.

The schedule says the project will be open to traffic in 2014. Which part will be open?

The first phase of the project is expected to be open to traffic by 2014. This phase will start at I-485 and extend westward. The most likely western interim terminus is currently US 321, based on current construction prices and what is known about available funding. This may change as the project moves closer to the start of construction in 2011.

Where is the project funding coming from?

Funding to construct the project will be from multiple sources over the course of several years. The majority of this project will be funded through the sale of revenue bonds, which will be repaid with the tolls collected along this roadway. The project may also be funded in part by federal credit assistance from the United States Department of Transportation under the Transportation Infrastructure Finance and Innovation Act – or TIFIA – program. STIP funds may be used. Appropriations from the NC Legislature (i.e. "Gap Funding" in the currently approved amount of \$35 million per year) are also anticipated.

How long will it take to build the project?

The first phase is expected to begin in early 2011 and be complete by the end of 2014, which is a total of four years. Other phases will begin when funding is available and the duration of construction will depend on the length and complexity of the segment being built.

How will project construction proceed?

The project is anticipated to be constructed through a Design-Build process. Design-Build is a contracting process where a contractor and designer are hired as a team to complete the design and construct the project under the guidance of the owner (in this case the state of North Carolina – the Turnpike Authority).

TRAFFIC CONCERNS ALONG US 321

If the project ends at US 321, how much traffic will be added to US 321 and will US 321 be able to handle this projected traffic?

It should be noted that the project is being planned and studied from I-485 to I-85. During the period that the project may terminate at US 321, our studies indicate there will be an increase in traffic along US 321 from the Garden



FAQs

Garden Parkway
STIP No. U-3321

Parkway north to Stagecoach Road for a distance of approximately three-fourths of a mile. Beyond Stagecoach Road, the traffic is estimated to generally be the same with or without the project.

Under both an interim phase for the Garden Parkway and the ultimate project, a corridor-level evaluation indicates US 321 would operate under capacity and at acceptable levels of service from Robinson Road (south of the Garden Parkway) to US 29/74 (Wilkinson Blvd) through the year 2030 (the latest year for which traffic forecasts were developed).

The analyses described above were developed using traffic forecasts for the years 2015 and 2030 based on the MetroIrina Regional Travel Demand Model. Detailed traffic information is available on our website at <http://www.ncturnpike.org/projects/gaston/>

Will the project send high volumes of trucks through the York Chester historic neighborhood located off US 321?

No. Based on existing truck data and future predicted truck percentages, daily truck traffic along US 321 in the historic district is not expected to increase due to the Garden Parkway (whether it's an interim phase from I-485 to US 321 or the ultimate project from I-485 to I-85).

EFFECTS OF THE PROJECT

How can I find out if my property is impacted by the project?

The Corridor/Design Public Hearing Maps show the preliminary engineering designs for the Detailed Study Alternatives (potential corridors for the road derived from a balance of all environmental and public concerns within the area in which the project is expected to go) overlaid on aerial photographs that also show parcel boundaries. In addition to the preliminary right-of-way limits for each Detailed Study Alternative, the Hearing Maps show the wide corridor boundaries where detailed information was collected in order to develop the preliminary right of way. The preliminary design right of way is subject to change as the project moves forward in the process. However, the right of way must stay within the corridor area or additional data collection and new studies would be required.

The Hearing Maps are available as pdfs from the project website at www.ncturnpike.org/projects/gaston/deis.asp

Will the project have a negative impact on the region's air quality?

The project area is part of the Charlotte-Gastonia-Rock Hill air quality region (also known as the MetroIrina Region). Air quality regions are evaluated to determine if they are meeting National Ambient Air Quality Standards (NAAQS) for six pollutants: carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide. An area that exceeds the NAAQS for a pollutant is said to be in "non-

attainment" for that pollutant. The Charlotte-Gastonia-Rock Hill air quality region is a non-attainment area for ozone. The region prepares plans to evaluate how it is going to maintain or achieve attainment status for the NAAQS. For transportation sources, the region is evaluated as a whole through the region's long range transportation plans and transportation improvement programs. At this time, the Gaston Urban Area Metropolitan Planning Organization's (MPO's) Long Range Transportation Plan and the Mecklenburg Union MPO's Long Range Transportation Plan have been determined to be in conformity with the State's plans to comply with the NAAQS. The Gaston East-West Connector is included in these long range transportation plans designed to meet and maintain the NAAQS.

What are some of the benefits of the project?

With the Garden Parkway in place, travel times in 2030 are expected to be substantially shorter for many trips. Trips across southern Gaston County are expected to be almost 10 minutes shorter, and trips across the Catawba River are estimated to be 20-30 minutes shorter. In addition, the Garden Parkway would provide benefits to travelers who do not use it, as it would reduce overall congestion throughout Gaston County by 6-7 percent.

ALTERNATIVES

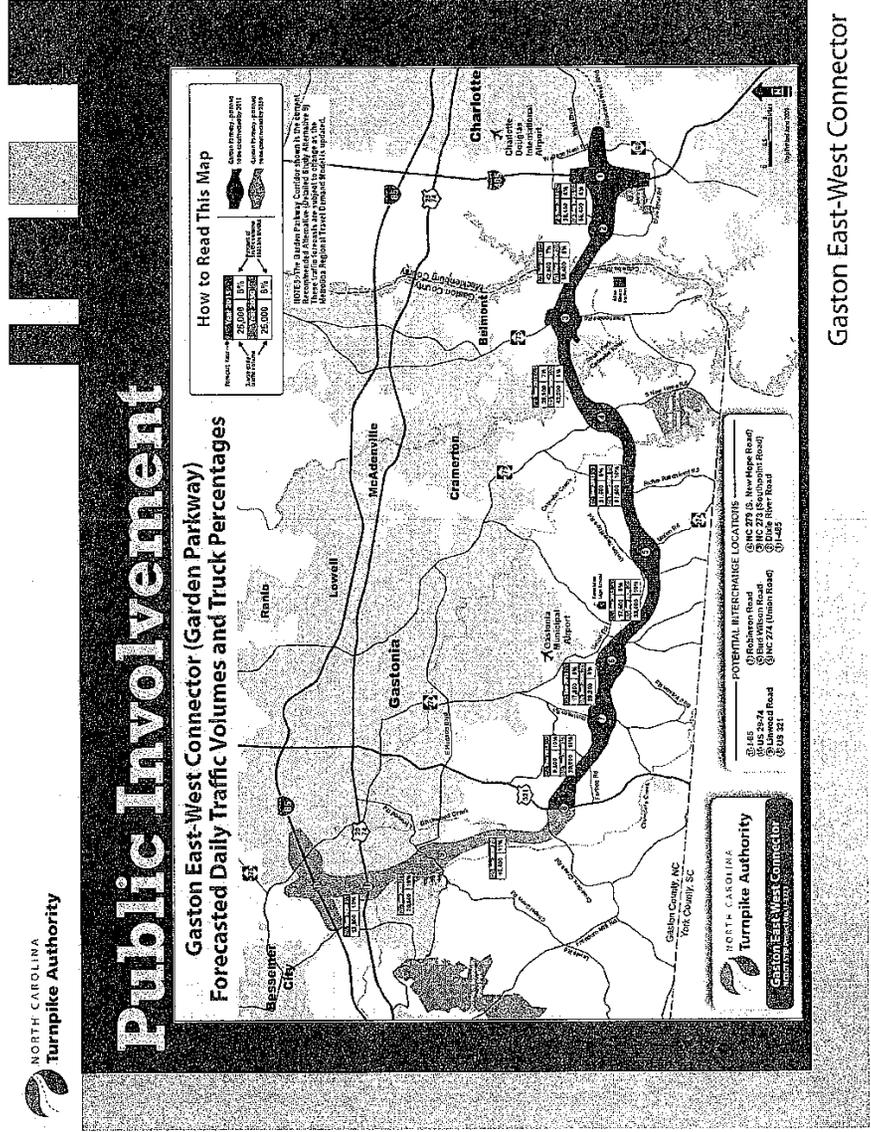
The Gaston Urban Area Metropolitan Planning Organization (MPO) identified an alignment for the project several years ago. There were several public meetings about this before the MPO finalized their corridor. Was this corridor considered and studied by the Turnpike Authority?

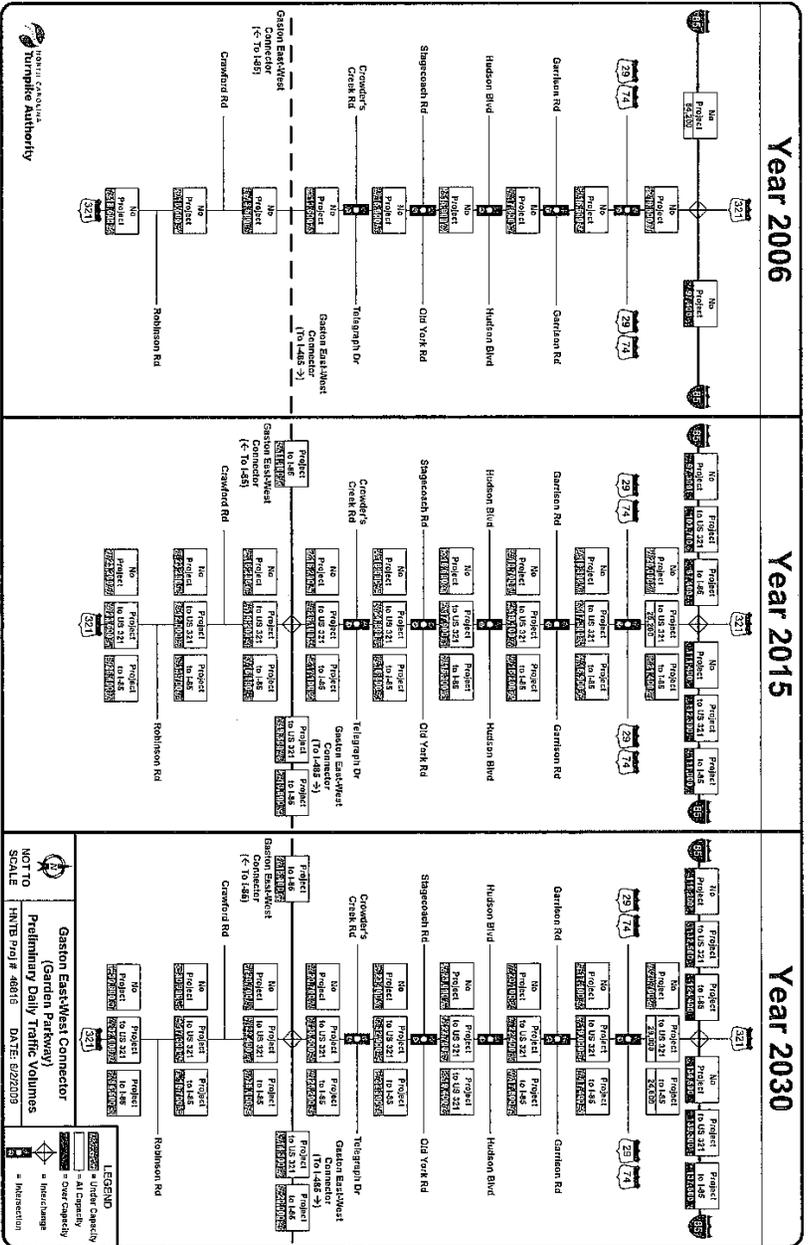
This corridor was considered and evaluated as part of the Preliminary Alternatives for the project. Several segments of the corridor are included as part of the Detailed Study Alternatives. In the Belmont area, the MPO corridor was eliminated from study due to recent facility improvements at the Allen Steam Station power plant that did not exist at the time the MPO made their recommendation. Duke Energy installed air pollution control equipment, costing approximately \$100 million dollars, just north of the power plant, directly in the path of the Metropolitan Planning Organization's proposed corridor.

Did you consider widening I-85 as an option?

Several options for widening or adding capacity to I-85 were considered as part of the alternatives development and evaluation process, but were eliminated from further study based on the determination that it would not improve travel times, mobility, access, or connectivity between southern Gaston County and western Mecklenburg County, and would result in the greatest construction delays of all alternative concepts. Additional reasons are described in detail in Chapter 2 of the Draft EIS, Section 2.2.6.



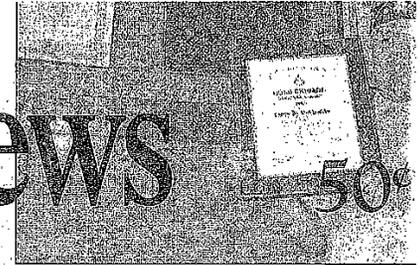




ATTACHMENT 4

Belmont Banner News

Volume 74 • Issue 26 • Wednesday, July 1, 2009



Study: Parkway won't help I-85 traffic

By TARA MANJARRES

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BELMONT—A new study released by the N.C. Turnpike Authority shows that traffic will increase on I-85 by the Year 2030 even with the Garden Parkway, but turnpike officials say the Parkway isn't meant to eliminate the interstate's traffic.

"Its purpose is not to alleviate congestion on I-85," said Engineer Jennifer Harris of the Turnpike Authority. "The purpose is to help establish connectivity and mobility between Gaston and Mecklenburg

counties."

Harris cited the project's theme as stated on page 1-3 of the Turnpike's Environmental Impact Study released in May, at www.nc-turnpike.org.

"The purpose of the proposed action is to improve east-west transportation mobility in the area around the City of Gastonia, between Gastonia and the Charlotte metropolitan area, and particularly to establish direct access between the rapidly growing area of southeast Gaston County and western Mecklenburg County," the document reads.

In early June, the Turnpike posted a traffic study on their website showing that in the year 2030 with the Parkway completed to the first leg of U.S. 321, there would be some 137,600 cars utilizing I-85.

During the same year without the Garden Parkway, fewer cars are anticipated on I-85 at 134,600.

This caused some confusion among local residents who were expecting traffic to decrease—not increase—if the toll road is built, they said.

Dale Bingham, of Belmont, said it was his thinking all along

that the Parkway is meant to ease congestion on the clogged-up I-85.

"I think a lot of people think the reason they're going to tear up all these people's homes is that the toll road is going to stabilize the interstate (I-85)," said Bingham. "But now it looks like it really is a toll road to nowhere except back to I-85 where it's going to worsen its traffic."

But turnpike officials note the toll road is meant to connect Gaston and Mecklenburg counties and I-85's congestion isn't really part of the roadmap.

See ROAD on page 2

Road

Continued from Page 1

"It's a fact that I-85 has problems and with this project we have never maintained this is the silver bullet. This is one project, a large project, that is going to contribute substantially to maintaining the transportation mobility in this region but in no way does one project fix all the transportation needs in an area," said Harris, adding that's why

there's a long range transportation plan for the whole Gaston County area.

Harris notes the Garden Parkway's EIS clearly defines what the toll road will accomplish and suggests everyone carefully examine the document.

"I would encourage people to look at what we're saying the transportation need is and what we're saying the purpose of this project is so that people clearly understand what we are and what we aren't saying what this project is going to do in the area."

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ATTACHMENT 6

U-001

2030 - Long Range Transportation Plan
(8-Hour Ozone Standard)

Gaston Urban Area
Metropolitan Planning Organization

Prepared by the Gaston Urban Area
Technical Coordinating Committee, and
Gaston Urban Area MPO Staff

Adopted by the Gaston Urban Area
Technical Advisory Committee

May 24, 2005

Chapter 5: Future Conditions

5.3 The "Garden Parkway" Project

The Garden Parkway is a proposed four-lane divided freeway that will begin in Mecklenburg County as an extension of NC 160 (West Boulevard) in the vicinity of Charlotte-Douglas International Airport. It would proceed west, cross the Catawba River and reach Gaston County at a point just north of the Duke Energy generating plant. From this point it will continue west, passing through the southern tier of the county. At US 321 South it will turn to the north and ultimately tie in to US 321 North at a point just north of Cloninger Road. This road will serve as a bypass to Interstate 85, US 29/74 and US 321. All three of these roads will have direct access to the facility. In addition, access to Interstate 485 in Mecklenburg County is also planned. A map of the selected Garden Parkway corridor is shown on **Figure 23**.

This project was identified early in the citizen participation process that began in 1989 to update the Gaston Urban Area Thoroughfare Plan. During the Thoroughfare Plan update process, it was shown that I-85, which can not be widened further due to development, would soon be over capacity. The response of the Gaston MPO's Transportation Advisory Committee (TAC) was to request that the Mecklenburg TAC join it in passing a resolution supporting a bridge study of the Catawba River for a freeway facility that would connect the two urban areas and relieve I-85. In November 1989, both TACs issued the joint resolution and sent it to NCDOT. A timeline of other project milestones is included below.

The importance of this project to Gaston County cannot be underestimated. The TAC considers the Garden Parkway the most significant project of all the facilities proposed for Gaston County and as such is item # 1 on the MPO's Unmet Needs List. When built, it will serve as a reliever to I-85 and US 29/74, both of which are projected to be at or near capacity, *even with the bypass in place. The MPO initially proposed the Garden Parkway to be one contiguous project, however the project was split into two portions in the STIP. The first is project R-2608 (321 Bypass) which constitutes the segment from I-85 to US 321 North. The second is project U-3321 (Gaston East-West Connector) and is the segment that begins in Mecklenburg County at NC 160 (West Boulevard) and extends across southern Gaston County terminating at I-85. The Environmental Impact Study for U-3321 is currently funded in the State Transportation Improvement Program (STIP) and is underway.*

In recent years, MPO staff has worked with NCDOT and local jurisdictions to advance the planning of the Garden Parkway. This was first done through a citizens' committee charged with determining the best alignment for the facility and later through outreach to many community groups such as the Chamber of Commerce, the Board of Realtors and the Greater Gastonia Development Corporation.

Due to the tremendous impact that this facility will have on Gaston County, the TAC felt it was necessary to take the planning of the Garden Parkway beyond the search for the most appropriate alignment. In carrying out that task, a committee made up of MPO staff and planners from each municipality in the urban area reviewed the existing land uses in the Parkway corridor. Following the documentation of their work, a new committee, the Bypass Corridor Committee was established by the TAC. This group was comprised of planning commission members from the jurisdictions which will be impacted by the construction of the Parkway, as well as representatives of the Economic Development Commission, the Quality of Natural Resources



Sorry! When printing directly from the browser your directions or map may not print correctly. For best results, try clicking the Printer-Friendly button.

U-001

2500 Southpoint Rd
Belmont, NC 28012-7792

Charlotte/Douglas International Airport (CLT)
5501 Josh Birmingham Pkwy
Charlotte, NC 28208
Vehicle | 704-356-4000

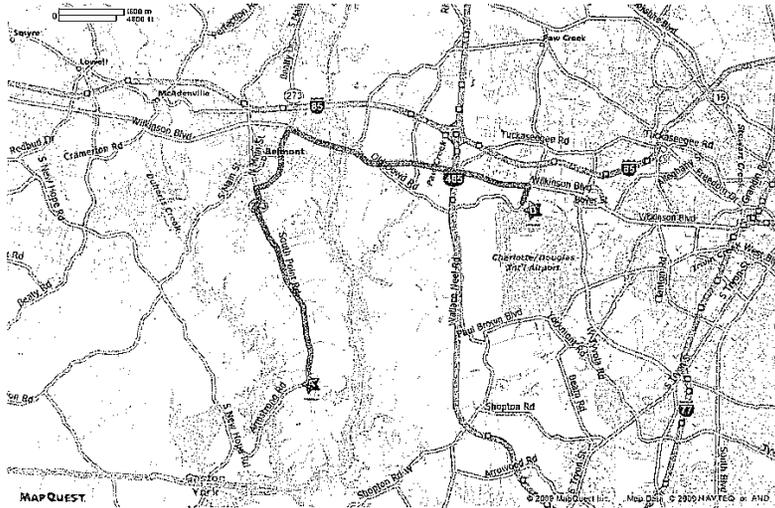
Total Estimated Time: 17 minutes
Total Estimated Distance: 11.24 miles
Total Estimated Fuel Cost: Fuel Cost

▼ Directions from A to B:

- 1: Start out going NORTH on SOUTH POINT RD/ SOUTHPOINT RD/ NC-273 toward HEATHER GLEN LN/ HIGHLAND POINTE DR. Continue to follow NC-273. 4.1 mi
- 2: Turn RIGHT onto KEENER BLVD/ NC-273. Continue to follow NC-273. 1.5 mi
- 3: Turn RIGHT onto E WILKINSON BLVD/ US-29 N/ US-74 E. 5.0 mi
- 4: Turn RIGHT onto LITTLE ROCK RD. 0.3 mi
- 5: Turn LEFT onto OLD DOWD RD. 0.2 mi
- 6: Turn RIGHT onto RC JOSH BIRMINGHAM PKWY. 0.1 mi
- 7: End at 5501 Josh Birmingham Pkwy Charlotte, NC 28208

Estimated Time: 17 minutes Estimated Distance: 11.24 miles

Total Estimated Time: 17 minutes Total Estimated Distance: 11.24 miles



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Appendix B3 – Interest Group Comments

Table B3-14: William Toole – to USACE

Document: u001 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Purpose and Need for Action	The project fails to meet the stated purposes of reducing congestion and substantially improving east-west connectivity. Therefore, the Project has no merit.	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002).
2	Alternatives Considered	Because the Transportation Agencies have summarily rejected without meaningful analysis practicable alternatives (such as establishing High Occupancy Toll (HOT) lanes on I-85, improving existing transportation facilities, and transportation demand management, or mass transit) no 404 permit may be issued.	See response to Comments 2 and 3 in Mr. William Toole's letter (Document i011).
3	Indirect and Cumulative Effects	The expected adverse effects of uncontrolled suburban sprawl through agricultural lands that lack municipal water and sewer outweigh the marginal benefits of the Project. For these reasons, the Corps must conclude that the Project cannot be approved for a permit under section 404 of the Clean Water Act.	The US Army Corps of Engineers is a Cooperating Agency in the project's EIS. They have coordinated with FHWA, NCTA, and NCDOT throughout the EIS process and have concurred with the Purpose and Need (Concurrence Point [CP] 1), Detailed Study Alternatives (CP 2), and Bridging Decisions (CP 2a) as included in Appendix A-1 of the Draft EIS; and the Least Environmentally Damaging Practicable Alternative (DSA 9) (CP 3) and Avoidance and Minimization of Jurisdictional Resource Impacts (CP 4a), as included in Appendix G of the Final EIS. Coordination will continue through the permitting phase of the project.
4	Indirect and Cumulative Effects	The DEIS provides no evaluation reflecting the type of development that would be stimulated by the Project, or the indirect and cumulative impacts of such development upon the existing community.	The qualitative Indirect and Cumulative Effects Assessment for the Gaston East-West Connector is summarized in Chapter 7 of the Draft EIS and it provides a qualitative analysis of the potential indirect and cumulative effects from growth associated with the project, in accordance with NCDOT guidance. This report is incorporated by reference to the Draft EIS. A <i>Quantitative Indirect and Cumulative Effects Analysis</i> has been prepared for the Preferred Alternative and summarized in Section 2.5.5 of the Final EIS. This report quantifies the potential change in land cover that may occur with and without the proposed project.
5	Purpose and Need for Action	A primary purpose of the Project is to improve traffic flow and safe travel on I-85, US 29/74 and US 321 in the Project Study Area. The Project fails to meet the stated purposes of decreasing congestion.	See response to Comment 1 in the Catawba Riverkeeper's letter (Document i006).
6	Purpose and Need for Action	The DEIS does not demonstrate the substantial improvement to traffic flow on I-85, US 29/74, or US 321 that is required to meet the stated Project purpose.	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002).
7	Indirect and Cumulative Effects	The DEIS contains no evaluation at all of the effect of terminating the Project at US 321, which the North Carolina Turnpike Authority states is the likely western terminus. In response to a substantial number of questions from the community, the North Carolina Turnpike Authority ultimately presented a June 2, 2009 study comparing various traffic scenarios at US 321, including that of terminating the Project there. The study shows the following daily traffic counts in the year 2030	See response to Comment 2 in the Catawba Riverkeeper's letter (Document i006).

Appendix B3 – Interest Group Comments

Table B3-14: William Toole – to USACE

Document: u001 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		and demonstrates that constructing the Project increases traffic on I-85 at US 321. All scenarios show I-85 operating over capacity. This analysis of the Project clearly shows improve congestion on I-85 does not improve.	
8	Purpose and Need for Action	The draft Environmental Impact Statement prepared by the Turnpike Authority declares that the purpose of the toll road is "to improve traffic flow on the sections of I-85, US 29-74 and US 321" in the study area, and to "reduce congested vehicle miles travelled" compared to traffic if the Project is not built. Because the toll road does not meet the basic purpose of relieving traffic congestion, the Project has no merit.	See response to Comment 1 in the Catawba Riverkeeper's letter (Document i006).
9	Alternatives Considered	If DEIS estimates are to be believed, in 2030 residents on the Belmont Peninsula will save 23 minutes travelling to the Charlotte Douglas Airport by taking the toll bridge. This time savings occurs in part because the No-Build Alternative is estimated to take 57 minutes. Currently, MapQuest shows the trip taking 17 minutes. For the proposed travel savings to be correct, traffic on South Point Road and Wilkinson Boulevard must become so congested that the trip increases by 40 minutes, a two hundred percent increase in 20 years. This simply is not credible. It is probable that from the US 321/Robinson Road interchange to the airport would see improved travel times over the toll road. The fact is, however, that Google Maps shows there is no development at the US 321/Robinson Road interchange and it is not a travel destination. The Project provides no meaningful, credible improvement in east-west connectivity, and certainly is not worth the impacts it will cause to the environment and the community.	See response to Comment 10 in Mr. William Toole's letter (Document i011).
10	Alternatives Considered	The DEIS appears to have consistently overestimated the "existing" traffic volume along each of the major roadways in the project area. This leads to inflated traffic congestion projections. The failure to accurately reconcile the 2006 estimates with the 2007 observed data further corrodes the credibility of the long-term model projections.	See response to Comment 1 in the Southern Environmental Law Center's letter (Document i012/u002).
11	Alternatives Considered	The DEIS cursorily reviews, then summarily concludes, that a number of alternatives, including High Occupancy Toll (HOT)/High Occupancy Vehicle (HOV) on I-85, expanded mass transit, upgrading the existing road system, or some combination of these, fail to meet or exceed the defined purpose and need. Of course, the Transportation Agencies then fail to apply the same standard of success to their preferred alternative of Project construction.	See response to Comment 19 in the Southern Environmental Law Center's letter (Document i012/u002) regarding range of alternatives evaluated. See response to Comment 24 in the Southern Environmental Law Center's letter (Document i012/u002) regarding mass transit alternatives.

Appendix B3 – Interest Group Comments

Table B3-14: William Toole – to USACE

Document: u001 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
12	Alternatives Considered	The Transportation Agencies concluded that Mass Transit Improvements on Existing Locations (consisting of bus or rail service) would not attract enough trips to noticeably reduce vehicle miles travelled or congestion. The DEIS does not contain any study to support this conclusion.	See response to Comment 24 in the Southern Environmental Law Center's letter (Document i012/u002).
13	Alternatives Considered	The DEIS analysis of the Improve Existing Roadways Alternative is particularly disheartening. For example, the April 24 DEIS failed to review and consider the Charlotte Region Fast Lanes Study (draft Final Report March 2009) which concluded that a High Occupancy Toll (HOT) lane option was feasible, could be constructed in existing I-85 right-of-way, would save commuters 19 minutes, and unlike the Project would be fully self-supporting (construction and O&M) from toll revenues. The DEIS rejected the Improve Existing Roadways Alternative without the detailed study and for summary conclusions that are now redundant (and at direct odds with other professional studies) – travel times would not improve compared to the No-Build alternative, failure to provide east-west connectivity, and failure to improve level of service.	See response to Comment 14 in Mr. William Toole's letter (Document i011-2).
14	Alternatives Considered	The Transportation Agencies have not engaged in an objective evaluation of the alternatives using empirical data. Compared to their willingness to overlook the same deficiencies with the Project, the Transportation Agencies have not conducted a good faith review of the practicable alternatives. For this reason, the Corps must conclude that the Project is not eligible for a 404 permit.	See response to Comment 19 in the Southern Environmental Law Center's letter (Document i012/u002).
15	Indirect and Cumulative Effects	The Transportation Agencies have failed to evaluate the effects of the reasonably foreseeable - indeed probable - reality that the Project will dead-end into US 321 for decades, and perhaps forever. This reality has the potential to have direct impacts upon two historic neighborhoods located along US 321.	See response to Comments 6 in Mr. William Toole's letter (Document i006).
16	Indirect and Cumulative Effects	Furthermore, the DEIS has not adequately evaluated the indirect effects and cumulative impacts of constructing a transportation facility that is designed to promote suburban sprawl in what is principally agricultural land and pastures. The area to be served by the Project does not municipal water and sewer, and none is planned for much of the area.	The qualitative Indirect and Cumulative Effects Assessment for the Gaston East-West Connector is summarized in Chapter 7 of the Draft EIS. This study considered the availability and future plans for water and sewer in the ICE study area. For example, potential for development at the Bud Wilson Road interchange was noted as limited "due to the difficulty in getting public water and sewer services provided in the area." (page 7-15 of the Draft EIS). A quantitative indirect and cumulative effects assessment has been prepared for the Preferred Alternative (Final EIS Section 2.5.5) that provides more detail on potential land use impacts.
17	Air Quality	The DEIS fails to account for the fact that the withdrawal of the North Carolina State Implementation Plan means the MUMPO and GUAMPO transportation plans have now lapsed into a one year conformity grace period. At no point does the DEIS address the fact that by promoting suburban sprawl, the Project will	See response to Comment 39 in the Southern Environmental Law Center's letter (Document i012/u002).

Appendix B3 – Interest Group Comments

Table B3-14: William Toole – to USACE
Document: u001 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		substantially increase vehicle emissions of ozone precursors and contribute to the region's ozone problem, currently designated "serious". Given the fact that the region has been unable to reduce it's baseline ozone levels, it is likely specific enforceable actions and transportation control measures will have to be adopted to control vehicle emissions. The DEIS fails to evaluate the impacts of the Project on an already serious regional ozone problem.	
18	Water Resources	The DEIS fails to evaluate how the required wetlands compensatory mitigation will be implemented. In fact, the DEIS states that even a "conceptual mitigation plan" is one of the several "unresolved issues and areas of controversy". Securing suitable compensatory wetland mitigation sites within the lower Catawba River watershed is a well-recognized problem, and both the Corps and the public have a need to understand how the Transportation Agencies propose to address this issue.	A Conceptual Mitigation Plan for the Preferred Alternative has been prepared and is incorporated into the Final EIS. See Section 2.5.4.4 of the Final EIS.

June 17, 2009

To: Mr. Steven Lund
c/o US Army Corps of Engineers

JUN 19 2009

Re: ID# SAW-2009-0909
TIP Project No. U-3321

Please accept these comments as being made in protest of the application regarding a permit to discharge dredged or fill material into waters of the United States as associated with the proposed project.

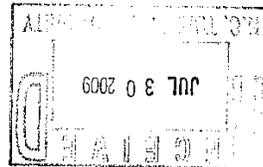
1 Applicant's stated purpose is to improve east-west transportation mobility. Specifically, they state that traffic on I-85 is at critical levels. However, their own publications indicate that projected traffic counts will be worse with the project than without. Because the project does not accomplish its objective, the impacts to the environment are not justified and it should not be allowed.

2 In stating the existing conditions and making predictions about the future development of the region ("...much of the rural area shifting toward a more suburban environment."), the applicant fails to reveal that much of that future development is contingent on the construction of this project. Without the project, the development will be significantly delayed. Much of the existing local population is against the project because of the expected growth, and its affect on adjacent property values. These values will be influenced by the impacts of the project in the form of increased storm water runoff, erosion, and siltation, as well as loss of forest and wetlands, noise pollution, and reduced aesthetic value.

3 As predicted by the applicant, total traffic count into and out of the county will increase because of the project. The additional traffic will affect already poor air quality in the region.

Thank you for consideration of these comments in your determination for issuance of the required permits.

John R Medlin, PE, PMP
Director I - Design Engineer
Fluor Power
6060 Piedmont Row Drive South
Charlotte, NC 28287
704-526-3254 work
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704-526-3172 fax



Appendix B3 – Interest Group Comments

Table B3-15: John Medlin

Document: u003 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Purpose and Need for Action	Applicant's stated purpose is to improve east-west transportation mobility. Specifically, they state that traffic on I-85 is at critical levels. However, their own publications indicate that projected traffic counts will be worse with the project than without. Because the project does not accomplish its objective, the impacts to the environment are not justified and it should not be allowed.	See response to Comment 2 in the Southern Environmental Law Center's letter (Document i012/u002).
2	Indirect and Cumulative Effects	In stating the existing conditions and making predictions about the future development of the region ("...much of the rural area shifting toward a more suburban environment."), the applicant fails to reveal that much of that future development is contingent on the construction of this project. Without the project, the development will be significantly delayed. Much of the existing local population is against the project because of the expected growth, and its affect on adjacent property values. These values will be influenced by the impacts of the project in the form of increased storm water runoff, erosion, and siltation, as well as loss of forest and wetlands, noise pollution, and reduced aesthetic value.	In accordance with NCDOT procedures, a qualitative Indirect and Cumulative Effects Assessment for the Gaston East-West Connector was prepared and is summarized in Chapter 7 of the Draft EIS. The qualitative analysis concludes that all Detailed Study Alternatives (DSAs) have a "High" potential for accelerated growth and indirect land use effects in Gaston County. A more detailed quantitative indirect and cumulative effects assessment was prepared for the Preferred Alternatives and is summarized in Section 2.5.5 of the Final EIS. The quantitative assessment provides more detail regarding potential land use changes and indirect and cumulative impacts to water quality and other notable resources with and without the proposed project.
3	Air Quality	As predicted by the applicant, total traffic count into and out of the county will increase because of the project. The additional traffic will affect already poor air quality in the region.	As discussed in Appendix C, Section C.1.2., of the Draft EIS, the New Location Alternative (Toll Scenario) is expected to result in more vehicle miles traveled in 2030 compared to the No Build Alternative, and VMT is expected to be even higher with the Improve Existing Roadways Alternatives (Table C-1). However, the year 2030 congested VMT and congested vehicle hours traveled would be lower with the New Location Alternative (Toll Scenario) than with the No Build Alternative. Regarding air quality, updates to air quality conformity issues are discussed in the Final EIS in Section 2.5.2.2 . The Preferred Alternative is included in the latest conformity determination issued by USDOT on October 5, 2010. See response to Comment 14 in Mr. Ed Eason's letter (Document i010).

JUN 30 2009

June 28, 2009

To The Army Corps of Engineers:

My name is Heather Pierce and I live at [redacted] in Belmont, NC. My home would be affected by the Garden Parkway route proposed by the NC Turnpike Authority.

My husband and I moved to Belmont in 2001 to get away from the hustle and bustle of Charlotte. We chose to purchase a home that was 50 years old instead of building a new one. Our real estate agent researched the area and was told by the city that the toll road was to be built south of the canal. We were unaware of any of the route changes until after the August, 2008 meeting.

1 My family enjoys the couple of acres we have, especially watching the hawk family in the woods behind our home and seeing a deer or fox run through the yard. Being able to show these beautiful sights of nature to my children is rare in this day and time. This multi-million dollar road would do irreversible damage environmentally to the peninsula. Instead of putting a toll road through Belmont, we all need to be concerned with protecting the delicate eco-system of the peninsula.

2 I do not support the Garden Parkway -The Toll Road to Nowhere in its entirety. Sprawl is not good for Belmont or Gaston County. Belmont has seen enough growth, especially on the peninsula. We don't need strip malls and the commercial growth that would come with the road, no matter what part of the county we are talking about. The small town of Belmont does not need another bridge crossing the Catawba River into our borders. We already have two, I-85 and Hwy.74 (in dire need of widening and repair).

3 Personally, I do not believe enough thorough, and I do mean thorough, research has been done by the proper authorities regarding environmental research on and around the peninsula of Belmont. At an impromptu meeting of the NC Turnpike Authority that I attended last fall a man was there representing himself as the riverkeeper. He was there on behalf of the NCTA. They had used him to make some studies of the South Fork River and shared his findings at this meeting. He said a bridge over the South Fork would do no damage to the river and shoreline in his opinion. The more I looked at this man I realized he was not the "Riverkeeper". He was a mere covekeeper. Catawba Riverkeeper David Merryman does not support the Garden Parkway, nor does the Lake Wylie Lakekeeper Elien Goff and for obvious reasons may I add.

I question many facts published by the NC Turnpike Authority as to whether they are correct or even being up front with us.

4 This toll road will make a huge impact on Gaston County environmentally, especially Belmont with the waters of the Catawba River, Lake Wylie and South Fork River surrounding the

4 peninsula. Erosion of the banks of the waters, water table declining, displacing and killing of
5 wildlife and runoff from road's surfaces will wash sediment downstream. These are some of the
6 reasons I object to this road. Not to mention this region is already in jeopardy of not meeting
clean air standards. We don't need 2 more bridges built across Belmont for a road that doesn't
even connect to I-85 and stops at Hwy.321 right at the historic York Chester neighborhood in
Gastonia.

I hope you take into consideration some of these points that I have brought to your attention. I know there are many more, such as funding.....there is no money except for the actual tolls from the road, and the state would have to subsidize some \$35 million a year for 39 years. We need to take this money and put it back into our schools where they are trying to cut money that doesn't need to be cut! **Widen I-85 that's where the whole problem is.** Every other town along I-85 has managed to widen their section. The money from the toll road can be reallocated.

Please listen to the citizens of Belmont and Gaston County and to what they want.

IT'S DEFINITELY NOT THE GARDEN PARKWAY – THE TOLL ROAD TO NOWHERE!

Sincerely,



Heather Pierce

Appendix B3 – Interest Group Comments

Table B3-16: Heather Pierce

Document: u004 letter dated June 28, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Protected Species and Wildlife	My family enjoys the couple of acres we have, especially watching the hawk family in the woods behind our home and seeing a deer or fox run through the yard. Being able to show these beautiful sites of nature to my children is rare in this day and time. This multi-million dollar road would do irreversible damage environmentally to the peninsula. Instead of putting a toll road through Belmont, we all need to be concerned with protecting the delicate eco-system of the peninsula.	Extensive studies have been conducted to analyze the project's impacts to the natural environment, including wildlife resources. Please refer to Draft EIS Chapter 6 for a discussion of potential impacts to natural resources, specifically Draft EIS Section 6.3 regarding natural communities and wildlife.
2	Land Use and Transportation Planning	Sprawl is not good for Belmont or Gaston County. Belmont has seen enough growth, especially on the peninsula. We don't need strip malls and the commercial growth that would come with the road, no matter what part of the county we are talking about. The small town of Belmont does not need another bridge crossing the Catawba River into our borders.	Comment acknowledged. The purpose and need for the project are documented in Chapter 1 of the Draft EIS.
3	Water Resources	Personally, I do not believe enough thorough, and I do mean thorough, research has been done by the proper authorities regarding environmental research on and around the peninsula of Belmont. Catawba Riverkeeper David Merryman does not support the Garden Parkway, nor does the Lake Wylie Lakekeeper, Ellen Goff.	Extensive studies have been conducted to analyze the project's impacts to the natural environment, including water resources. Please refer to Draft EIS Chapter 6 for a discussion of potential impacts to natural resources, specifically Draft EIS Section 6.2 regarding water resources. Also, please refer to responses to comments in the Catawba Riverkeeper's letter (Document i006).
4	Indirect and Cumulative Effects	This toll road will make a huge impact on Gaston County environmentally, especially Belmont with the waters of the Catawba River, Lake Wylie, and South Fork River surrounding the peninsula. Erosion of the banks of the waters, water table declining, displacing and killing of wildlife and runoff from road's surfaces will wash sediment downstream.	Extensive studies have been conducted to analyze the project's impacts to the natural environment, including water resources. Please refer to Draft EIS Chapter 6 for a discussion of potential impacts to natural resources, specifically Draft EIS Section 6.2 regarding water resources. Also, please refer to responses to comments in the Catawba Riverkeeper's letter (Document i006).
5	Air Quality	This region is already in jeopardy of not meeting clean air standards	Air quality is discussed in Section 4.2 of the Draft EIS. Updates for the Preferred Alternative are included in Section 2.5.2.2 in the Final EIS.
6	Alternatives Considered	We don't need 2 more bridges built across Belmont for a road that doesn't even connect I-85 and stops at HWY 321 right at the Historic York Chester neighborhood in Gastonia	See response to Comment 6 in Mr. William Toole's letter (Document i006).