



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

November 16, 2005

Memorandum To: Roy Shelton, PE, Project Development Staff Engineer
Project Development Unit

From: Michael Turchy, Environmental Specialist
Natural Environment Unit, Project Management Group

Regarding: **Environmental Review for the Installation of the
Statewide Weigh Station Transponder System.**

The NCDOT Intelligent Transportation Systems Unit proposes to install transponder readers and associated hardware and software at a minimum of eight existing interstate weigh station sites across the State.

This system will allow motor carrier enforcement personnel to electronically screen the credentials, safety record, violation history and fuel tax information from the North Carolina CVISN project, TransExpresSystem, and other state and federal databases. This electronic screening process will allow transponder equipped trucks that meet the screening criteria (based on acceptable carrier performance) to bypass the weigh station, improving safety in the vicinity of the weigh station and reducing delay to the motor carrier.

The NCDOT Natural Environment Unit was tasked with identifying any areas of environmental concern within one mile preceding a weigh station. It is anticipated that two transponders will be placed preceding each weigh station, one at a quarter of a mile before the weigh station and one at one mile preceding the station. Infrastructure elements may include, cable utilities linking the devices, foundations for the support structures, guardrail, and signing. Therefore, areas evaluated included 30 feet from edge of pavement for 1 mile preceding the weigh station. These areas are typically mowed and maintained frequently for visibility and safety to interstate highway standards. As anticipated impacts are small, and the system is versatile to avoid or minimize environmental impacts, this environmental evaluation only addresses the identification of jurisdictional waterbodies, and protected species.

This evaluation also identifies existing overhead structures within the one mile vicinity of the weigh station which could possibly be used to mount the transponders, thus further reducing environmental impacts.

The following is a breakdown of each weigh station in the state from west to east, the jurisdictional resources within the examined area, and federally protected species for that respective county. Photographs are included at the approximate location of each structure and jurisdictional areas. A CD is attached to the end of the document providing each photograph at full resolution.

Interstate 40 in Buncombe County

Federally Protected Species for Buncombe County

Common Name	Scientific Name	Habitat	Biological Conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	No	No Effect
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	No	No Effect
Eastern cougar	<i>Puma concolor cougar</i>	No	No Effect
Gray bat	<i>Myotis grisescens</i>	No	No Effect
Spotfin chub	<i>Hybopsis monacha</i>	No	No Effect
Appalachian elktoe	<i>Alasmidonta raveneliana</i>	No	No Effect
Oyster mussel	<i>Epioblasma capsaeformis</i>	No	No Effect
Bunched arrowhead	<i>Sagittaria fasciculata</i>	No	No Effect
Mountain sweet pitcher plant	<i>Sarracenia jonesii</i>	No	No Effect
Spreading avens	<i>Geum radiatum</i>	No	No Effect
Virginia spiraea	<i>Spiraea virginiana</i>	No	No Effect
Rock Gnome Lichen	<i>Gymnoderma lineare</i>	No	No Effect

I-40 Buncombe County Westbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the westbound weigh station in the project area.

I-40 Buncombe County Eastbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the eastbound weigh station in the project area.

Other notes:

SR 1210 crosses under I-40 approximately a ½ mile from the eastbound station. There are no environmental concerns with this crossing, but the design build team may need be aware of this constraint. (See picture below)



Interstate 26 in Henderson County

Federally Protected Species for Henderson County

Common Name	Scientific Name	Habitat	Biological Conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	No	No Effect
Appalachian elktoe	<i>Alasmidonia raveneliana</i>	No	No Effect
Oyster mussel	<i>Epioblasma capsaeformis</i>	No	No Effect
Bunched arrowhead	<i>Sagittaria fasciculata</i>	No	No Effect
Mountain sweet pitcher plant	<i>Sarracenia jonesii</i>	No	No Effect
Small-whorled pogonia	<i>Isotria medeoloides</i>	No	No Effect
Swamp pink	<i>Helonias bullata</i>	No	No Effect
White irisette	<i>Sisyrinchium dichotomum</i>	No	No Effect

I-26 Henderson County Westbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the westbound weigh station in the project area.

Other notes:

The westbound weigh station contains a bridge and a changeable message board assembly approximately ½ mile from the station which the transponders could potentially be attached. (See picture below.)



I-26 Henderson County Eastbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the eastbound weigh station in the project area.

Interstate 40 in Iredell County

Iredell County contains no Federal Protected species.

I-40 Iredell County Westbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the westbound weigh station in the project area.

I-40 Iredell County Eastbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the eastbound weigh station in the project area.

Interstate 85 in Mecklenburg County

Federally Protected Species for Mecklenburg County

Common Name	Scientific Name	Habitat	Biological Conclusion
Bald eagle	<i>Haliaeetus leucocephalus</i>	No	No Effect
Carolina heelsplitter	<i>Lasmigona decorata</i>	No	No Effect
Michaux's sumac	<i>Rhus michauxii</i>	Yes	No Effect
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	Yes	No Effect
Smooth coneflower	<i>Echinacea laevigata</i>	Yes	No Effect

Habitat does exist in the project area for Michaux's sumac, Schweinitz's sunflower, and Smooth coneflower in the form of disturbed roadside shoulders. A survey was conducted by NCDOT biologists Michael Turchy, Brett Feulner, and Megan Willis on October 7, and 19, 2005. No populations of any of the above species were located. The northbound station is crossed by the Catawba River approximately ½ mile from the weigh station. It is understood there will be no impacts to the Catawba River. If any impacts become proposed, additional surveys for aquatic species will be necessary.

I-85 Mecklenburg County Northbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources

The northbound station is crossed by the Catawba River approximately ½ mile from the weigh station. It is understood there will be no impacts to the Catawba River. If any impacts become proposed, permitting will be necessary.

Other notes:

As shown in the pictures above, both northbound locations have overhead structures in which the transponders could potentially be attached.

I-85 Mecklenburg County Southbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the southbound weigh station in the project area.

Other notes:

As shown in the ¼ mile from station picture above, an overpass could potentially be used to attach the transponder.

Interstate 77 in Surry County

Federally Protected Species in Surry County

Common Name	Scientific Name	Habitat	Biological Conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	No	No Effect
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	Yes	No Effect
Small-whorled pogonia	<i>Isotria medeoloides</i>	No	No Effect

Habitat does exist in the project area for Schweinitz's sunflower, in the form of open, disturbed roadside shoulders. A reference population in Surry County was visited and a survey was conducted in the project area by NCDOT biologists Michael Turchy and Tyler Stanton on November 3, 2005. No populations of Schweinitz's Sunflower were located.

I-77 Surry County Northbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources

There are no jurisdictional resources within 1 mile of the southbound weigh station in the project area.

I-77 Surry County Southbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the southbound weigh station in the project area.

Other notes:

As shown in the ¼ mile from station picture above, an overpass could potentially be used to attach the transponder.

Interstate 40/85 in Orange County

Federally Protected Species for Orange County

Common Name	Scientific Name	Habitat	Biological Conclusion
Red-cockaded woodpecker	<i>Picoides borealis</i>	No	No Effect
Dwarf wedge mussel	<i>Alasmidonta heterodon</i>	No	No Effect
Michaux's sumac	<i>Rhus michauxii</i>	Yes	No Effect
Smooth coneflower	<i>Echinacea laevigata</i>	Yes	No Effect

Habitat does exist in the project area for Michaux’s sumac, and Smooth coneflower in the form of disturbed roadside shoulders. A survey was conducted by NCDOT biologists Michael Turchy and Tyler Stanton on October 7, and November 3, 2005. No populations of any of the above species were located.

I-40/85 Orange County West/Southbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the southbound weigh station in the project area.

Other notes:

As shown in both photos above, an overhead signing structure could potentially be used to attach the transponders.

I-40/85 Orange County East/ Northbound Station

This station currently has the transponder system installed. No additional work for this station will be necessary.

Interstate 95 in Robeson County

Federally Protected Species in Robeson County

Common Name	Scientific Name	Habitat	Biological Conclusion
American alligator	<i>Alligator mississippiensis</i>	No	No Effect
Red-cockaded woodpecker	<i>Picooides borealis</i>	No	No Effect
Michaux's sumac	<i>Rhus michauxii</i>	Yes	No Effect

Habitat does exist in the project area for Michaux’s sumac in the form of disturbed roadside shoulders. A survey was conducted by NCDOT biologists Michael Turchy and Tyler Stanton on November 8, 2005. No populations of any of the above species were located.

I-95 Robeson County Northbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources

The northbound station has a jurisdictional waterbody at the weigh station. This area is shown below and is outside of the 20-30 foot edge of pavement study area. If this area cannot be avoided, additional surveys and permitting will be required.



I-95 Robeson County Southbound Station

1 mile from station:



1/4 mile from station:



Jurisdictional Resources:

There are two jurisdictional resources within 1 mile of the southbound weigh station in the project area. The first is a wetland area beginning at the outlet of a pipe. The second area is a stream. Both of these areas are approximately 25 feet from the edge of pavement and can be easily avoided. Both areas are shown below.



Wetland Approximately 3/4 mile from station



Stream Approximately 1/4 mile from Station

Interstate 95 in Halifax County

Federally Protected Species in Halifax County

Common Name	Scientific name	Habitat	Biological Conclusion
Bald eagle	<i>Haliaeetus leucocephalus</i>	No	No Effect
Red-cockaded woodpecker	<i>Picoides borealis</i>	No	No Effect
Dwarf wedge mussel	<i>Alasmidonta heterodon</i>	No	No Effect
Tar spiny mussel	<i>Elliptio steinstansana</i>	No	No Effect

I-95 Halifax County Northbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources

The northbound station is crossed by Fishing Creek approximately ½ mile from the weigh station as shown below. It is understood there will be no impacts to Fishing Creek. If any impacts become proposed, permitting and additional surveys will be necessary.



I-95 Halifax County Southbound Station

1 mile from station:



¼ mile from station:



Jurisdictional Resources:

There are no jurisdictional resources within 1 mile of the southbound weigh station in the project area.

Conclusion

The current scope of the project contains very limited impacts to the natural environment. Environmental disturbance work will be occurring in areas that are frequently disturbed by vegetation management machinery. Very little habitat is expected to be impacted from a protected species standpoint, and all jurisdictional impacts can be avoided by burying cable via a directional bore method, or attaching cable to a current bridge. Support structures can be placed away from all jurisdictional resources at all weigh station locations.

Permitting

A permit under CWA §404 and a Water Quality Certification under CWA §401 is not required for the project. Unless the scope of this project is to change or increase, the project requires no further environmental documentation from the Project Development and Environmental Analysis Branch of NCDOT.

Qualifications

Investigator: Michael Turchy

Education: B.A., Geology, Western Carolina University, 2001.

Experience: Environmental Specialist, NCDOT, May 2002-Present.

Investigator: Brett M. Feulner

Education: B.S., Forest Management, North Carolina State University, May 2001

Experience: Environmental Biologist, N.C. Dept. of Transportation Feb. 2003-present
Environmental Specialist, Landmark Design Group, Raleigh, NC, June 2001-December 2002

District Forester, Resource Management Service, New Bern, NC, January 1999-December 1999

Investigator: Tyler Stanton

Education: B.S., Fisheries and Wildlife Sciences, Minor in Forest Management
North Carolina State University, 1998.

Experience: Environmental Biologist, NCDOT, September 2003-Present.

Ecologist, Virginia Tech University, Conservation Management Institute,
April 1999-August 2003.

Investigator: Megan Willis

Education: B.S., Environmental Science, UNC-Asheville, 2004

Experience: Environmental Specialist, NCDOT, August 2004 – present