



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

NICHOLAS J. TENNYSON
SECRETARY

April 29, 2016

MEMORANDUM TO: Pam Williams, Priority Projects – Project Engineer
Technical Services, Priority Projects Unit

FROM: Tim Bassette, Environmental Program Consultant
Biological Surveys Group, Natural Environment Section
Project Development and Environmental Analysis Unit

SUBJECT: Protected species habitat assessment report for the Saint Francis' satyr butterfly (*Neonympha mitchellii francisci*) for the replacement of Bridge No. 45 on SR 2030 (Hollow Bridge Road)/SR 1414 (South Gray Street) over South River in Cumberland and Sampson Counties, North Carolina. TIP No. B-5700, WBS No. 45654.1.1.

Proposed Project B-5700

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 45 on existing State Route (SR) 2030 (Hollow Bridge Road)/SR 1414 (South Gray Street) over South River in Cumberland and Sampson Counties, North Carolina (Figure 1). According to Figure 2, the defined project study area is situated to the north and south of existing Bridge No. 45 along SR 2030 (Hollow Bridge Road)/SR 1414 (South Gray Street). The federally endangered Saint Francis' satyr butterfly (*Neonympha mitchellii francisci*) is listed by the United States Fish and Wildlife Service for Cumberland County.

Background

The Saint Francis' satyr butterfly is only known from the Sandhills of North Carolina, although its historic range may have been much larger. This butterfly is known to inhabit wide, wet meadows dominated by sedges and other wetland graminoids. These wetlands are often relicts of beaver activity and are found in boggy areas that are acidic and ephemeral. These sites must be continually maintained to persist as open areas. The larval host of the Saint Francis' satyr is thought to be grasses, sedges and rushes.

Only one known metapopulation (comprised of 13 subpopulations) of the Saint Francis' satyr butterfly is known worldwide, and is restricted to between 20 and 125 acres of Department of Defense lands on Fort Bragg, North Carolina. An April 7, 2016 review of the North Carolina Natural Heritage Program (NCNHP) database indicates that the project study area is situated 29.3 miles away from the approximated known occurrence of the species. The exact occurrence location is not being published in order to protect the species from poaching and harassment.

Habitat Assessment

On April 11, 2016, NCDOT biologist Tim Bassette and biologist Logan Williams of CALYX Engineers and Consultants spent a combined one person-hour conducting on foot a habitat assessment for the Saint Francis' satyr butterfly in the defined project study area of B-5700. Terrestrial and aquatic community types that are found within the study area include the open waters of South River, a riverine swamp forest/bottomland hardwood forest wetland complex, and a maintained/disturbed terrestrial community primarily comprised of fill along the roadside shoulders. Except for the maintained/disturbed upland areas along the roadside shoulders, the herbaceous layer within the project study area is generally non-existent as a consequence of being shaded out by the dense, forested canopy layers overhead.

Saint Francis' Satyr Butterfly

Biological Conclusion: No Effect

As a result of the habitat assessment and results of an NCNHP database review, suitable habitat for the Saint Francis' satyr butterfly does not occur within the limits of the project study area, thereby making a survey for the species unnecessary because of the lack of habitat. The project study area specifically does not contain any wide, wet meadows that are often relicts of beaver activity and frequently subject to burning, flooding, or otherwise regularly maintained and dominated by a high diversity of sedges and other wetland graminoids. The project study area is situated over 29 miles away from the approximated known element occurrence of the species as depicted by the NCNHP database. **The NCDOT, therefore, renders a Biological Conclusion of No Effect for the Saint Francis' satyr butterfly on this project.**

References

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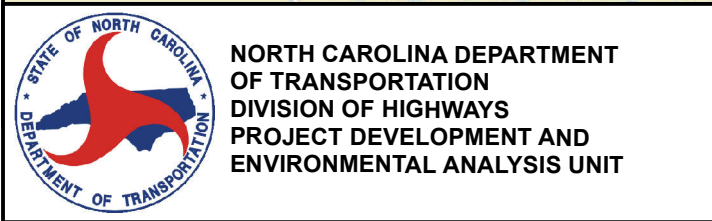
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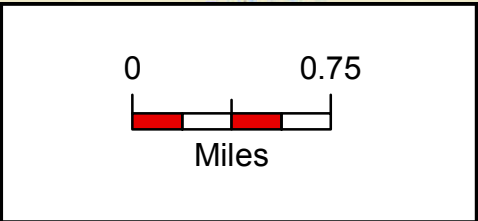
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CC: Jason Dilday, Environmental Senior Specialist, Environmental Coordination and Permitting Group

File: B-5700

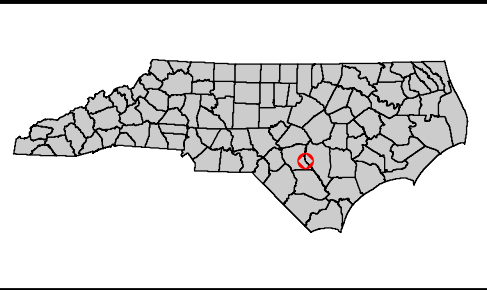


VICINITY MAP
Replace Bridge No. 45 on SR 2030
over South River in Cumberland County
TIP Project B-5700



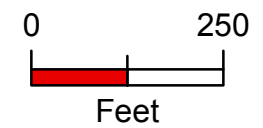
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Figure 1



NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS UNIT

STUDY AREA MAP
Replace Bridge No. 45 on SR 2030
over South River in Cumberland County
TIP Project B-5700



Div: 6	TIP# B-5700
Date: DECEMBER 2015	

Figure
2