



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

June 28, 2012

Pamela R. Williams
North Carolina Department of Transportation
Transportation Program Management Unit
1595 Mail Service Center
Raleigh, North Carolina 27699-1595

Dear Ms. Williams:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental effects of the proposed replacement of several bridges in Divisions 1, 4, 5, 6, 7 and 8. These bridge replacements are part of the state-funded Year 2 Master List (see attached truncated list). Division 6 bridges were addressed separately in a May 11, 2012 letter from the Service. The following comments provide information in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

Specific Comments

Division 1

Some of these bridges cross streams that are likely utilized by anadromous fish. In-water construction moratoria may be necessary for some bridges. The Service will defer to the North Carolina Wildlife Resources Commission and/or North Carolina Division of Marine Fisheries for specific moratoria requirements and dates. We do not plan to attend any of the field scoping meetings.

Division 4

Bridge 410030 over Rocky Swamp in Halifax County is located within a known population of the federally endangered dwarf wedgemussel (*Alasmodonta heterodon*). Dwarf wedgemussels have been observed multiple times at and near the bridge over the last several years. A formal Section 7 consultation is likely needed for this project. Given the fast-track nature of these state-funded bridges, it is important to note that a formal Section 7 consultation may take several months or more to complete. After the Service receives a complete initiation package (including Biological Assessment) from the lead federal action agency (i.e. U.S. Army Corps of Engineers), the Service has 135 days to complete a Biological Opinion. Therefore, it is imperative that sufficient time be built into the schedule to complete the consultation process.

For Bridge 630076 over Sandy Creek in Nash County, the federally endangered Tar River spinymussel (*Elliptio steinstansana*) has been observed upstream in Sandy Creek and downstream in Swift Creek. It is unknown if the species occurs near the project site. Mussel

surveys should be conducted at this site if suitable habitat exists. At a minimum, informal Section 7 consultation will likely be required for this project.

For Bridge 630091 over Tar River in Nash County, there are historic records of the federally endangered Tar River spiny mussel upstream of this location. It is not known if the species currently occurs near the project area. Mussel surveys should be conducted at this site if suitable habitat exists. At a minimum, informal Section 7 consultation will likely be required for this project.

For Bridge 970028 over Contentnea Creek in Wilson County, the federally endangered dwarf wedgemussel historically occurred upstream of Buckhorn Reservoir. Although the species has never been recorded downstream of Buckhorn Reservoir, mussel surveys should be conducted if suitable habitat exists near the project site.

The Service would like to attend the scheduled field scoping meetings for Bridges 410030, 630076 and 630091 only. We request that you schedule the meetings for these three projects on the same day. We do not have any specific concerns for the other projects within Division 4.

Division 5

For Bridge 910162 over the Little River in Wake County, the federally endangered dwarf wedgemussel was observed at multiple locations downstream of this site in the 1990s, with the closest occurrence being approximately three miles downstream. If suitable habitat exists at or near the site, mussel surveys should be conducted. The Service would like to attend the field scoping meeting for this project. The Service does not have any specific concerns for any of the other Division 5 projects.

Division 6

Projects in this Division were addressed under separate cover.

Division 7

The Service does not have any specific concerns for any of these projects. We do not plan to attend any of the field scoping meetings.

Division 8

The following Bridge Numbers in Montgomery County fall within the potential range of the federally endangered Schweinitz's sunflower (*Helianthus schweinitzii*): 610030, 610157, 610228 and 610232. Bridge Number 610228 is located < 0.5 mile from a known location of the species. The Service recommends that surveys for this species be completed during the optimal survey window of late August – October for these four bridges. Please note that due to the fast-track nature of these bridge projects, it is imperative that surveys occur during the 2012 survey window. Otherwise, the projects may be delayed due to having to wait until the next survey season in 2013.

Bridge Number 820006 in Scotland County is located approximately 0.5 mile from a known occurrence of the federally endangered red-cockaded woodpecker (*Picoides borealis*) located within the Sandhills Game Land. It should be determined whether active cavity trees occur within 0.5 mile of the bridge, and if so, whether any suitable foraging habitat would be removed.

We do not have any specific concerns for the other projects within Division 8. We do not plan to attend any of the field scoping meetings for this Division.

General Comments

The Service recommends the following general conservation measures to avoid or minimize environmental impacts to fish and wildlife resources:

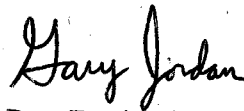
1. Wetland, forest and designated riparian buffer impacts should be avoided and minimized to the maximum extent practical;
2. If unavoidable wetland or stream impacts are proposed, a plan for compensatory mitigation to offset unavoidable impacts should be provided early in the planning process;
3. Off-site detours should be used rather than construction of temporary, on-site bridges. For projects requiring an on-site detour in wetlands or open water, such detours should be aligned along the side of the existing structure which has the least and/or least quality of fish and wildlife habitat. At the completion of construction, the detour area should be entirely removed and the impacted areas be planted with appropriate vegetation, including trees if necessary;
4. Wherever appropriate, construction in sensitive areas should occur outside fish spawning and migratory bird nesting seasons. In waterways that may serve as travel corridors for fish, in-water work should be avoided during moratorium periods associated with migration, spawning and sensitive pre-adult life stages. The general moratorium period for anadromous fish is February 15 - June 30;
5. New bridges should be long enough to allow for sufficient wildlife passage along stream corridors;
6. Best Management Practices (BMP) for Construction and Maintenance Activities should be implemented;
7. Bridge designs should include provisions for roadbed and deck drainage to flow through a vegetated buffer prior to reaching the affected stream. This buffer should be large enough to alleviate any potential effects from run-off of storm water and pollutants;
8. The bridge designs should not alter the natural stream and stream-bank morphology or impede fish passage. To the extent possible, piers and bents should be placed outside the bank-full width of the stream; and
9. Bridges and approaches should be designed to avoid any fill that will result in damming or constriction of the channel or flood plain. If spanning the flood plain is not feasible, culverts should be installed in the flood plain portion of the approach to restore some of the hydrological functions of the flood plain and reduce high velocities of flood waters within the affected area.

Section 7(a)(2) of the Endangered Species Act requires that all federal action agencies (or their designated non-federal representatives), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally threatened or endangered species. To assist you, a county-by-county list of federally protected species known to occur in North Carolina and information on their life histories and habitats can be found on our web page at <http://www.fws.gov/nc-es/es/countyfr.html>.

If you determine that the proposed action may affect (i.e. likely to adversely affect or not likely to adversely affect) a listed species, you should notify this office with your determination, the results of your surveys, survey methodologies and an analysis of the effects of the action on listed species, including consideration of direct, indirect and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e. no beneficial or adverse, direct or indirect effect) on listed species, then you are not required to contact our office for concurrence.

The Service appreciates the opportunity to comment on this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,


for Pete Benjamin
Field Supervisor

Attachment: Truncated Master List - Divisions 1, 4, 5, 6, 7 and 8

Electronic cc: Bill Biddlecome, USACE, Washington, NC
Tom Steffens, USACE, Washington, NC
Eric Alsmeyer, USACE, Wake Forest, NC
Ronnie Smith, USACE, Wilmington, NC
Andy Williams, USACE, Wake Forest, NC
Travis Wilson, NCWRC, Creedmoor, NC
Chris Militscher, USEPA, Atlanta, GA
Clay Willis, NCDOT, Edenton, NC
Chad Coggins, NCDOT, Wilson, NC
Chris Murray, NCDOT, Durham, NC
Jerry Parker, NCDOT, Greensboro, NC
Art King, NCDOT, Aberdeen, NC

DIV	NUM	COUNTY	Description	River Basin	LAT	LONG
1	690004	PASQUOTANK	Bridge #4 over Diamond Creek on SR 1100	PASQUOTANK	36.2414444	76.2238889
1	690092	PASQUOTANK	Bridge #92 over Canal to Little River on SR 1220	PASQUOTANK	36.1811944	76.2473889
1	710002	PERQUIMANS	Bridge #2 over Muddy Creek on SR 1321	PASQUOTANK	36.1194444	76.2861111
1	710007	PERQUIMANS	Bridge #7 over Mill Creek on SR 1221	PASQUOTANK	36.2058333	76.4316111
1	710012	PERQUIMANS	Bridge #12 over Belial Creek on SR 1341	PASQUOTANK	36.1121111	76.4856944
1	710017	PERQUIMANS	Bridge #17 over Goodwin Mill Creek on SR 1113	PASQUOTANK	36.2055556	76.5472222
1	710025	PERQUIMANS	Bridge #25 over Unnamed Trib to Perquimans River on SR 1001	PASQUOTANK	36.3441944	76.4726111
1	710030	PERQUIMANS	Bridge #30 over Perquimans River on SR 1202	PASQUOTANK	36.3075556	76.544
4	410030	HALIFAX	Bridge #30 over Rocky Swamp on NC 481	TAR PAMLICO	36.1753333	77.7648889
4	500096	JOHNSTON	Bridge #56 over Black Creek on US 301/NC 96	NEUSE	35.4691111	78.3845
4	500070	JOHNSTON	Bridge #70 over Neuse River on US 301	NEUSE	35.4816111	78.36941667
4	630028	NASH	Bridge #28 over Big Pasture Creek on SR 1321	TAR PAMLICO	36.04741667	78.0866111
4	630076	NASH	Bridge #76 over Sandy Creek on SR 1004	TAR PAMLICO	36.1057778	77.9933333
4	630083	NASH	Bridge #83 over Little Pasture Creek on SR 1305	TAR PAMLICO	36.9941389	78.0805
4	630091	NASH	Bridge #91 over Tar River on NC 581	TAR PAMLICO	36.8821389	78.08941667
4	630097	NASH	Bridge #97 over Tolson Swamp on SR 1952	NEUSE	35.85775	78.08760556
4	630125	NASH	Bridge #125 over Back Swamp on SR 1310	TAR PAMLICO	36.0423611	78.05875
4	630132	NASH	Bridge #132 over Tributary Basket Creek on SR 1435	TAR PAMLICO	36.0243889	77.9490556
4	630135	NASH	Bridge #135 over Pig Basket Creek Overflow on SR 1435	TAR PAMLICO	35.9983333	77.9602778
4	630136	NASH	Bridge #136 over Pig Basket Creek on SR 1435	TAR PAMLICO	35.9973889	77.9601111
4	950014	WAYNE	Bridge #14 over Bear Creek on SR 1714	NEUSE	35.3726111	77.80275
4	970028	WILSON	Bridge #28 over Contentment Creek on NC 581	NEUSE	35.2808889	78.0576111
4	970055	WILSON	Bridge #55 over Tolson Swamp on US 264	NEUSE	35.6916667	78.1092222
4	970081	WILSON	Bridge #81 over Millstone Creek on SR 1302	NEUSE	35.6977778	77.8546389
4	970093	WILSON	Bridge #93 over Town Creek on SR 1416	TAR PAMLICO	35.7721389	78.0308511
4	970094	WILSON	Bridge #94 over Town Creek on SR 1400	TAR PAMLICO	35.8127222	77.8336389
4	970136	WILSON	Bridge #136 over Trib of Tolson Swamp on SR 1442	NEUSE	35.8130278	79.1821389
5	310008	DURHAM	Bridge #8 over Flat River on SR 1602	NEUSE	35.65575	77.8500278
5	310085	DURHAM	Bridge #85 over Little Lick Creek on SR 1814	NEUSE	36.2371667	78.8956389
5	310093	DURHAM	Bridge #93 over Rocky Creek on SR 1945	CAPE FEAR	35.9891667	78.799
5	310118	DURHAM	Bridge #118 over Pond on US 501	NEUSE	35.969	78.89391667
5	380142	GRAVILL	Bridge #130 over Little Johnson Creek on SR 1300	ROANOKE	36.16675	78.9041667
5	380224	GRAVILL	Bridge #142 over Grass Creek on SR 1431	ROANOKE	36.51375	78.8716667
5	900085	VANCE	Bridge #224 over Beaver Creek on SR 1501	ROANOKE	36.5126111	78.6213333
5	910067	WAKE	Bridge #65 over Little Island Creek on SR 1348	ROANOKE	36.51375	78.5170278
5	910121	WAKE	Bridge #67 over Bachelor Branch of White Oak Creek on SR 1615	CAPE FEAR	36.5135278	78.4573611
5	910122	WAKE	Bridge #121 over Horse Creek on SR 1909	NEUSE	36.6811944	78.8986111
5	910130	WAKE	Bridge #122 over Richland Creek on SR 1931	NEUSE	36.0040556	78.5240833
5	910132	WAKE	Bridge #130 across Sanford Creek on SR 2049	NEUSE	35.9903611	78.5111111
5	910161	WAKE	Bridge #132 over Smith Creek on SR 2052	NEUSE	35.9416667	78.5069722
5	910162	WAKE	Bridge #161 over Cedar Fork Creek on SR 2300	NEUSE	35.925	78.5266667
5	910526	WAKE	Bridge #162 over Little River on SR 2224 (Mitchell Mill Rd)	NEUSE	35.8169167	78.3905
7	000085	ALAMANCE	Bridge #52 over Moccasin Creek on SR 2406	NEUSE	35.8138889	78.3868889
7	000086	ALAMANCE	Bridge #55 over Meadow Creek on SR 2158	CAPE FEAR	35.8722222	78.2933333
7	000097	ALAMANCE	Bridge #97 over Club Creek on SR 2116	CAPE FEAR	35.98014	79.32672
7	000125	ALAMANCE	Bridge #125 over Yarnalls Creek on SR 2327	CAPE FEAR	35.98169	79.36169
7	000135	ALAMANCE	Bridge #135 over Reedy Branch on SR 2356	CAPE FEAR	35.98889	79.41450
7	000144	ALAMANCE	Bridge #144 over Pine Hill Branch on SR 2351	CAPE FEAR	35.89003	79.40169
7	000146	ALAMANCE	Bridge #146 over Rock Creek on SR 2381	CAPE FEAR	35.86328	79.38969
7	000151	ALAMANCE	Bridge #151 over Rock Creek on SR 2383	CAPE FEAR	35.95578	79.46069
7	000152	ALAMANCE	Bridge #152 over Greenbrier Creek on SR 2307	CAPE FEAR	35.92783	79.46089
7	000154	ALAMANCE	Bridge #154 over N. Prong Creek on SR 2307	CAPE FEAR	35.85667	79.46897
7	000200	ALAMANCE	Bridge #154 over Cane Creek on SR 2365	CAPE FEAR	35.85586	79.49514
7	000207	ALAMANCE	Bridge #200 over Little Creek Trib on SR 1110	CAPE FEAR	35.89028	79.52925
7	000238	ALAMANCE	Bridge #238 over Sells Creek on SR 1522	CAPE FEAR	35.94017	79.48261
7	000253	ALAMANCE	Bridge #253 over Reedy branch on SR 2354	CAPE FEAR	36.12678	79.50861
7	000267	ALAMANCE	Bridge #267 over Jones Creek on SR 1571	CAPE FEAR	35.87022	79.44461
7	000270	ALAMANCE	Bridge #270 over Travis Creek Trib on SR 1552	CAPE FEAR	35.95581	79.40117
7	160026	CASWELL	Bridge #26 over Grays Branch Trib 2 on SR 1139	CAPE FEAR	36.21839	79.53728
7	160106	CASWELL	Bridge #42 over UT to Haw Creek on SR 1107	missing	35.14275	79.50261
7	670042	ORANGE	Bridge #43 over Seven Mile Creek on SR 1120	ROANOKE	36.26164	79.49819
7	670043	ORANGE	Bridge #60 over Buckwater Creek Trib 2 on SR 1002	NEUSE	36.03381	79.47700
7	670060	ORANGE	Bridge #101 over Stony Creek Trib 2 on SR 1002	NEUSE	36.06731	79.38067
7	670101	ORANGE	Bridge #136 over South Fork Little River on SR 1544	NEUSE	36.10894	79.28967
7	670136	ORANGE	Bridge #136 over South Fork Little River on SR 1544	NEUSE	36.02708	79.16756
7	670136	ORANGE	Bridge #136 over South Fork Little River on SR 1544	NEUSE	36.02708	79.02225
7	670136	ORANGE	Bridge #136 over South Fork Little River on SR 1544	NEUSE	36.17792	79.06058
7	670136	ORANGE	Bridge #136 over South Fork Little River on SR 1544	NEUSE	36.17792	79.08836

DIV	NAME	COUNTY	Description	River Basin	LAT	LONG
8	460023	HOKE	Bridge #23 over Big Middle Swamp on SR 1116	LUMBER	34.92647	79.26728
8	460024	HOKE	Bridge #24 over Fork Rail Swamp on SR 1116	LUMBER	34.93228	79.24444
8	460025	HOKE	Bridge #25 over Fork Rail Swamp on SR 1116	LUMBER	34.93303	79.24378
8	460098	HOKE	Bridge #98 over Big Middle Swamp on SR 1135	LUMBER	34.91114	79.23606
8	610030	MONTGOMERY	Bridge #30 over Calk's Creek on SR 1130	YADKIN PEEDEE	36.26267	80.01983
8	610157	MONTGOMERY	Bridge #157 over Barnes Creek on SR 1303	YADKIN	36.43812	79.99911
8	610228	MONTGOMERY	Bridge #228 over Suck Branch on SR 1320	YADKIN	36.37961	79.89028
8	610232	MONTGOMERY	Bridge #232 over Clark's Creek on SR 1188	YADKIN	36.22144	80.03333
8	760056	RICHMOND	Bridge #56 over Downing Creek on SR 1004	LUMBER	35.06603	79.54997
8	760093	RICHMOND	Bridge #93 over Dry Creek on SR 1148	YADKIN	35.11472	80.00519
8	760110	RICHMOND	Bridge #110 over S. Prong Cartledge Creek on SR 1305	YADKIN	35.02217	79.17650
8	820006	SCOTTLAND	Bridge #6 over Gum Swamp Creek on SR 1001		34.87975	79.54361
8	820011	SCOTTLAND	Bridge #11 over Jordan's Creek on SR 1324	LUMBER	34.87061	79.48514