



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

September 15, 2011

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 1-8. These bridge replacements are part of the state-funded Year 1 Master List (see attached truncated list). 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

Approximately 10 out of the 12 bridges in Division 1 occur within the boundaries of either Alligator River National Wildlife Refuge or Mattamuskeet National Wildlife Refuge. Possible concerns with these bridges include wildlife passage along riparian areas, boater access, and the use of Refuge lands. The Service plans to attend the November 14-15, 2011 field scoping meetings for the projects within Refuge boundaries. We request that you schedule the projects that are outside Refuge boundaries last, as it not necessary for us to attend those meetings.

Division 2

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 3

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 4

The Service agrees with the NCDOT assessment that mussel surveys are needed for Structure Numbers 500070 (Neuse River), 500071 (Buffalo Creek), 500072 (Swift Creek), 500236 (Little River), 500240 (Buffalo Creek), and 500282 (Buffalo Creek) in Johnston County. The federally endangered dwarf wedgemussel (*Alasmidonta heterodon*) has either recently or historically been found in each of the streams for these six sites. Also, the federally endangered Tar River

spiny mussel (*Elliptio steinstansana*) has recently been observed in the Little River. At a minimum, informal Section 7 consultation will likely be necessary for these six sites. Depending upon survey data and other information to be obtained, formal Section 7 consultation may or may not be necessary. The Service would like to attend the scheduled field scoping meetings for Structure Numbers 500070, 500071, 500072, 500236, 500240, and 500282 only. However, Gary Jordan of my staff is only available on October 13. We request that you schedule the meetings for these six projects on that date only. We do not have any specific concerns for the other projects within Division 4.

Division 5

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 6

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 7

The Service agrees with the NCDOT assessment that mussel surveys are needed for Structure Numbers 780037 (Jacob's Creek), 780071 (Rock Creek), 780129 (Prong Jacob's Creek) and 780218 (Quaqua Creek) in Rockingham County. These projects fall within the potential range of the federally endangered James spiny mussel (*Pleurobema collina*). We understand that a mussel survey was conducted on August 25, 2011 for 780153 (Hogan's Creek), but we have not yet been provided the results. The Service also agrees that surveys should be conducted for the federally endangered Roanoke logperch (*Percina rex*) for Structure Numbers 780037 (Jacob's Creek), 780071 (Rock Creek), 780129 (Prong Jacob's Creek) and 780218 (Quaqua Creek) in Rockingham County. We understand that fish surveys were conducted in August 2011 for 780073 (Town Creek) and 780153 (Hogan's Creek) in Rockingham County, and that informal Section 7 consultation is likely needed. The Service would like to attend the field scoping meetings scheduled for September 28-30, 2011 for Structure Numbers 780037, 780071, 780073, 780129, 780153 and 780218 only. However, Gary Jordan of my staff is unavailable for these dates. The Service requests that NCDOT provide for an alternative meeting date for these six projects, preferably on the same day. At a minimum, informal Section 7 consultation is likely for some or all of these six projects. We do not have any specific concerns for the other projects within Division 7.

Division 8

The Service agrees with the NCDOT assessment that surveys should be conducted for the federally endangered Cape Fear shiner (*Notropis mekistocholas*) at Structure Number 180141 (Rocky River) in Chatham County and Structure Numbers 620059 (McLendon's Creek) and 620090 (Cabin Creek) in Moore County. Structure Number 180141 is of particular concern since it is located a few miles upstream of designated critical habitat for the Cape Fear shiner. There are tentative plans to augment the Cape Fear shiner population in the Rocky River in order to aid the recovery of the species. Although this augmentation would occur downstream in the designated critical habitat, it is expected that Cape Fear shiners would utilize available habitat upstream at and near the location of Structure Number 180141. As another effort at recovering the species, there is the potential that a dam removal upstream of Structure Number 180141 may occur in the future, thus opening up additional habitat for Cape Fear shiners. The Service would

like to attend the scheduled field scoping meetings for Structure Numbers 180141 and 620059 only. However, Gary Jordan of my staff is available only on the October 6, 2011 date. We request that you schedule these two field meetings consecutively on that date only. At a minimum, informal Section 7 consultation is likely for one or more of these projects.

The following Structure Numbers in Randolph County fall within the potential range of the federally endangered Schweinitz's sunflower (*Helianthus schweinitzii*): 750002, 750029, 750067, 750075 and 750400. The Service recommends that surveys for this species be completed during the optimal survey window of late August – October for these five bridges. Please note that due to the time sensitive nature of these bridge projects, it is imperative that Schweinitz's sunflower surveys happen very soon. Otherwise, the projects may be delayed due to having to wait until the next survey season in 2012.

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 1-8

Electronic cc: Bill Biddlecome, USACE, Washington, NC
Tom Steffens, USACE, Washington, NC
Brad Shaver, USACE, Wilmington, 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, Raleigh, NC

Div.	County	Str. #	Description	EX. BR. LEN	Hydro-Office Estimate Bridge Length*	Drainage Basin
1	Dare	270003	Bridge #3 over Deep Creek on US 264	100		
1	Dare	270010	Bridge #10 over Pains Bay Canal on US 264	34		
1	Dare	270013	Bridge #13 over Stumpy Point Bay on US 264	100	160'	Pasquotank
1	Dare	270015	Bridge #15 over Stumpy Point Bay on US 264	34	"80' / " *	Pasquotank
1	Dare	270016	Bridge #16 over canal on US 264	53	100'	Pasquotank
1	Hyde	470002	Bridge #2 over Lake Mattamuskeet on NC 94	29		
1	Hyde	470003	Bridge #3 over Lake Mattamuskeet on NC 94	29		
1	Hyde	470005	Bridge #5 over canal u.s. from Rutman Cr. on SR 130	120	165'	Far-Pamlico
1	Hyde	470016	Bridge #16 over Lake Mattamuskeet on NC 94	29		
1	Hyde	470017	Bridge #17 over Lake Mattamuskeet on NC 94	29		
1	Hyde	470018	Bridge #18 over Lake Mattamuskeet on NC 94	29		
1	Hyde	470025	Bridge #25 over Burrus Canal on SR 1305	52	"100' / " *	Far-Pamlico
		Count	12			
2	Beaufort	060053	Bridge #53 over Pungo River Canal on NC 45/NC 9	60	"120' / " *	Far-Pamlico
2	Beaufort	060182	Bridge #182 over Chicod Creek on SR 1158	53	110'	Far-Pamlico
2	Beaufort	060255	Bridge #255 over Broad Creek Canal on SR 1120	120	160'	Far-Pamlico
2	Pitt	730061	Bridge #61 over Tranters Creek on NC 903	120	185'	Far-Pamlico
2	Pitt	730067	Bridge #67 over Fk Little Contentnea Creek on SR 12	87	160'	Neuse
2	Pitt	730068	Bridge #68 over PINE LOG CREEK on SR 1217	53	105'	Neuse
2	Pitt	730080	Bridge #80 over Black Swamp on SR 1200	52	105'	Neuse
2	Pitt	730081	Bridge #81 over Little Contentnea Creek on SR 1200	52	90'	Neuse
2	Pitt	730125	Bridge #125 over UT Hunting Run on SR 1565	121	180'	Far-Pamlico
2	Pitt	730157	Bridge #157 over UT to Tyson Creek on SR 1255	36	100'	Far-Pamlico
2	Pitt	730171	Bridge #171 over Johnson Mill Run on SR 1418	53	105'	Far-Pamlico
2	Pitt	730176	Bridge #176 over Swift Creek on SR 1122	70	110'	Neuse
		Count	12			
3	Brunswick	090003	Bridge #3 over Banton Branch on SR 1455	37	"30'-9" X 6'-9" AL ARCH"	Cape Fear
3	Brunswick	090016	Bridge #16 over Honey Island Swamp on NC 211	53	100'	Lumber
3	Brunswick	090020	Bridge #20 over Honey Island Swamp on NC 211	52	105'	Lumber
3	Brunswick	090025	Bridge #25 over Midway Branch/River Swamp on SR	81	135'	Lumber
3	Brunswick		Bridge #54 over Hood Creek on NC 87	61	110'	Cape Fear
3	Brunswick	090101	Bridge #101 over Branch Pinch Gut Creek on SR 140	52	90'	Lumber
3	Brunswick	090102	Bridge #102 over Pinch Gut Creek on SR 1401	35	80'	Lumber
3	Brunswick	090142	Bridge #142 over Hickman Branch on SR 1301	20	"50'/85""x54"" "	Lumber
3	Brunswick	090169	Bridge #169 over Branch Lockwood Folly River on SR	21	70'	Lumber
3	Brunswick	090200	Bridge #200 over Branch Juniper Creek on SR 1340	19	"50'/22'-3"" x 7'-3"" Al Box"	Lumber
3	Pender	700144	Bridge #144 over Colly Creek on SR 1102	151	225'	Cape Fear
3	Pender	700215	Bridge #215 over Buckle Swamp Creek on SR 1104	92	140'	Cape fear
		Count	12			
4	Johnston	500043	Bridge #43 over Mill Creek on SR 1122	136	150'	Neuse
4	Johnston	500056	Bridge #56 over Black Creek on US 301/NC 96	210	230'	Neuse
4	Johnston	500070	Bridge #70 over Neuse River on US 301	315	325'	Neuse
4	Johnston	500071	Bridge #71 over Buffalo Creek on NC 96	98	130'	Neuse
4	Johnston	500072	Bridge #72 over Swift Creek on NC 210	186	190' *	Neuse
4	Johnston	500080	Bridge #80 over Hannah Creek on SR 1159	87	120'	Neuse
4	Johnston	500088	Bridge #88 over East Mingo Creek on SR 1303	51	90'	Cape Fear
4	Johnston	500129	Bridge #129 over Little Black Creek on SR 1006	76	85'	Neuse
4	Johnston	500236	Bridge #236 over Litle River on SR 1934	160	180'	Neuse
4	Johnston	500240	Bridge #240 over Buffalo Creek on SR 2127	53	100'	Neuse
4	Johnston	500241	Bridge #241 over Long Branch on SR 2127	53	75'	Neuse
4	Johnston	500282	Bridge #282 over Buffalo Creek on SR 2130	120	145'	Neuse
4	Johnston	500327	Bridge #327 over Moccasin Creek on SR 2141	36	80'	Neuse
		Count	13			
5	Wake	910067	Bridge #67 over Bachelor Branch White Oak Creek o	52	85'	Cape Fear
5	Wake	910237	Bridge #237 over Neuse River on SR 2555	350	360'	Neuse
5	Wake	910285	Bridge #285 over Terrible Creek on SR 2751	70	105'	Neuse
5	Wake	910338	Bridge #338 over Kenneth Creek on SR 1100	41	80'	Cape Fear
5	Wake	910363	Bridge #363 over Reedy Br Prong Beaver Creek on S	41	85'	Neuse
5	Wake	910410	Bridge #410 over Dutchman's Creek on SR 1386	81	80'	Neuse
5	Wake	910467	Bridge #467 over Walnut Creek on SR 1348	90	100'	Neuse
5	Wake	910485	Bridge #485 over Echo Creek on SR 2782	31	65'	Neuse
		Count	8			

Div.	County	Str. #	Description	EX. BR. LEN	Hydro-Office Estimate Bridge Length*	Drainage Basin
6	Columbus	230039	Bridge #39 across MONTE SWAMP on SR1006	56	95'	Lumber
6	Columbus	230041	Bridge #41 across MONTE SWAMP on SR1006	92	130'	Lumber
6	Columbus	230043	Bridge #43 across BRANCH OF MONTE SWAMP on	56	95'	Lumber
6	Columbus	230045	Bridge #45 across Big Cypress Swamp on SR1108	36	75'	Lumber
6	Columbus	230069	Bridge #69 across Big Cypress Swamp on SR1112	36	75'	Lumber
6	Columbus	230075	Bridge #75 across Big Branch in Monte Swamp on S	37	75'	Lumber
6	Columbus	230081	Bridge #81 across TOM'S FORK on SR1118	101	140'	Lumber
6	Columbus	230088	Bridge #88 over Branch Toms Fork Creek on SR 112	19	"45' / 24'-4""x8'-2"" Alum Box"	Lumber
6	Columbus	230289	Bridge #289 across GRISSETT SWAMP on SR1141	55	100'	Lumber
6	Columbus	230290	Bridge #290 across GRISSETT SWAMP on SR1141	55	100'	Lumber
6	Columbus	230291	Bridge #291 across GRISSETT SWAMP on SR1141	56	100'	Lumber
6	Columbus	230294	Bridge #294 across GRISSETT SWAMP on SR1141	56	100'	Lumber
6	Columbus	230295	Bridge #295 across Mollie SWAMP on SR1141	36	"25'-4" alum box culvert"	Lumber
6	Columbus	230320	Bridge #320 across JUNIPER SWAMP on SR1118	56	100'	Lumber
6	Columbus	230321	Bridge #321 across Juniper Swamp on SR1118	56	100'	Lumber
		Count	15			
7	Alamance	000333	Bridge #333 over Town Branch on SR 2183	19	75' / 1@40'x10' Crown Span	Cape Fear
7	Caswell	160102	Bridge #102 over Sugar Tree Creek on SR 1717	51	65'	Roanoke
7	Guilford	400030	Bridge #30 over Register's Creek on SR 1129	34	75'	Cape Fear
7	Guilford	400104	Bridge #104 over Brush Creek on SR 3827	35	80'	Cape Fear
7	Guilford	400204	Bridge #204 over Rock Creek on SR 2800	19	55'	Cape Fear
7	Guilford	400248	Bridge #248 over Big Alamance Trib 3 on SR 3088	36	80'	Cape Fear
7	Orange	670141	Bridge #141 over trib of South Flat River on SR 1528	36	85'	Neuse
7	Orange	670214	Bridge #214 over Rocky Run on SR 1135	25	"2 7' X 8' rcbc"	Neuse
7	Orange	670234	Bridge #234 over Little River No.Fork Trib 3 on SR 15	21	60'	Neuse
7	Rockingham	780002	Bridge #2 over Troublesome Creek on SR 2410	36	"83' / 12.25' x 7.25 alum arch"	Cape Fear
7	Rockingham	780037	Bridge #37 over Jacob's Creek on SR 2302	91		
7	Rockingham	780038	Bridge #38 over Branch Brushy Creek on SR 2304	41		
7	Rockingham	780053	Bridge #53 over Belews Creek Trib 2 on SR 1114	41	"81' / 1 - 114" CMP"	Roanoke
7	Rockingham	780071	Bridge #71 over Rock Creek on SR 1951	41	95'	Roanoke
7	Rockingham	780073	Bridge #73 over Town Creek on SR 1974	70	110'	Roanoke
7	Rockingham	780092	Bridge #92 over Haw Rvr Tributary 16 on SR 2692	79	95'	Cape Fear
7	Rockingham	780129	Bridge #129 over Prong Jacobs Creek on SR 2153	63		
7	Rockingham	780145	Bridge #145 over Prong Beaver Creek on SR 1300	30		
7	Rockingham	780153	Bridge #153 over Hogan's Creek on SR 2189	70	115'	Roanoke
7	Rockingham	780218	Bridge #218 over Quaqua Creek on SR 1928	35	"80' / 2 - 8' X 7' RCBC"	Roanoke
		Count	20			
8	Chatham	180141	Bridge #141 over Rocky River on SR 2170	226	245'	Cape Fear
8	Lee	520037	Bridge #37 over Upper Little River on SR 1162	153	175'	Cape Fear
8	Moore	620059	Bridge #59 over McLendons Creek on SR 1006	201	230'	Cape Fear
8	Moore	620064	Bridge #64 over McLendons Creek on SR 1642	151	185'	Cape Fear
8	Moore	620073	Bridge #73 over Beaver Creek on NC 24/NC 27	44	85'	Cape Fear
8	Moore	620090	Bridge #90 over Cabin Creek on SR 1275	181	190'	Cape Fear
8	Moore	620096	Bridge #96 over Branch Cabin Creek on SR 1400	40	85'	Cape Fear
8	Randolph	750002	Bridge #2 over Little River on SR 1119	165	195'	Yadkin
8	Randolph	750029	Bridge #29 over Uwharrie River on SR 1105	200	245'	Yadkin
8	Randolph	750067	Bridge #67 over Uwharrie River on SR 1545	55	130'	Yadkin
8	Randolph	750075	Bridge #75 over Prong Back Creek on SR 1511	44		
8	Randolph	750400	Bridge #400 over Hasketts Creek Trib 2 on SR 1479	19	"61' / 12.5 x 7.5 alum arch"	Cape Fear
		Count	12			