United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

July 17, 2014

Mr. Ben Hark
West Virginia Department of Transportation
Division of Highways
1900 Kanawha Boulevard East
Charleston, West Virginia 25305

Re: West Virginia Division of Highways, Thurmond Bridge Project, Fayette County, WV

Dear Mr. Hark:

This responds to your May 21, 2014, request for information regarding the proposed Thurmond bridge rehabilitation project in Fayette County, West Virginia. These comments are provided pursuant to the Endangered Species Act (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on your correspondence, the Service has determined that two federally listed species are within the range of the proposed project, and may be affected by the construction and operation of the proposed project. These include the endangered Indiana bat (*Myotis sodalis*) and the Virginia big-eared bat (*Corynorhinus townsendii virginianus*).

Additionally, on October 2, 2013, in the *Federal Register* (78 FR 61045 -61080) the Service proposed the northern long eared bat (*Myotis septentrionalis*) for listing under the ESA. If a decision is made to list this species, potential impacts from this project to this species may need to be addressed if this project is not completed by April 2, 2014. We encourage you to begin incorporating conservation measures to protect these species prior to any potential final listing decisions.

Endangered Bats

Habitat for the federally listed Indiana and Virginia big-eared bats occurs within the project area. The proposed bridge project is within three known Virginia big-eared bat use buffers and two known Indiana bat use buffers. If any tree clearing is proposed for this project, it will need to occur seasonally (November 15 through March 31) and an Indiana Bat Conservation Plan will need to be completed (enclosed).

New River Gorge National River

Resources

The New River is stated to be one of the oldest rivers in the Appalachians (Fridley 1950; Grafton and Grafton 1980). It has been speculated that the New River may be 320 million years old, making it the second oldest river in the world, second only to the Nile River in Egypt or to the Finke River in Australia (Mahan 2004). The New River originates at an elevation of 3,800 feet in the Blue Ridge Mountains of North Carolina and flows generally north. It flows 250 miles before it joins the Gauley to form the Kanawha River. The New River within the New River Gorge National River (NRGNR) is approximately 53 miles in length.

One of the outstanding features of NRGNR is the presence of the New River Gorge. The cliffs of the gorge extend for a distance of 20 miles and are primarily composed of perpendicular rock that, at its deepest point, extends 1,292 feet to the valley below. The gorge itself is a nationally significant geologic feature and is only rivaled by the Niagara cliffs in New York (Brooks 1911). The New River Gorge is an erosional feature that is important from geologic, historic, and natural perspectives. Size and topographic relief of the New River Gorge within the NRGNR make it an outstanding, nationally significant natural phenomenon (Lessing 1986).

The NRGNR supports a diverse, nationally significant assemblage of flora (Mahan 2004). The New River Gorge appears to be, floristically, the most diverse river gorge in the central and southern Appalachians (Suiter 1995). The age of the river and its long history have allowed species of plants and wildlife to develop which are endemic to the New River drainage (Stauffer et al. 1995).

The expanse of mixed-mesophytic forest in which NRGNR is located is the largest remaining area of mid-latitude forest in the world, making it a globally significant resource (Ritters et al. 2000). This continuous span of mixed-deciduous forest, comprised of both oak-hickory and mixed-mesophytic forest types, is one of the largest in the United States (Ritters et al. 2000). The forests in and around NRGNR support diverse populations of neotropical migratory birds and may be the source population for the cerulean warbler (*Dendroica cerulean*), a species that is declining in other parts of its range (Rosenberg et al. 2000).

A variety of habitat types within the New River, including runs, riffles, pools, pool edges, and environments created by submerged snags, support a diversity of fish and other aquatic wildlife (Purvis et al. 2002). Other habitat communities located within and adjacent to the river itself include riverscour flatrock, cold cove forests, floodplain forests, backwater sloughs, riverscour prairies, high floodplain oak forests, shrub wetlands, and herbaceous wetlands. Rare or exemplary communities found within the NRGNR include hemlock forests, Virginia pine forests, forest seeps, cliff communities, Appalachian flatrock communities, and pitch pine woodlands (Vanderhorst 2003).

Natural riparian areas are some of the most diverse, dynamic, and complex biophysical habitats in the terrestrial environment (Naiman et al. 1993). Ten riparian habitats are known to occur within the NRGNR: mature sycamore, willow, sycamore-willow-birch, stunted sycamore-willow, hemlock/rip-rap, riparian Virginia pine (Appalachian flatrock), rock riprap, boulder, tributary, and developed (Buhlmann et al. 1987). The Appalachian flatrock community type is a

globally rare ecological community that is composed of locally rare sedges, cedars, pines, and other plants and is known from only three sites in NRGNR (Buhlmann et al. 1987; Suiter and Evans 1999; Vanderhorst 2001). Several species of rare plants including many that reach their southernmost or northernmost distributional limits were found within wetlands located in the NRGNR (Eye 1981).

Over 60 plant taxa of special concern in West Virginia have been reported from the NRGNR (Suiter and Evans 1999). Rouse and McDonald (1986) and McDonald and Harmon (1989) identified two species of bittercress in the NRGNR, *Cardamine clematitis* and *C. flagellifera*, as globally rare (100 or fewer occurrences worldwide). Both species are southern Appalachian endemics, reach their northern-most limit in West Virginia, and are found in West Virginia only within the NRGNR (Rouse and McDonald 1986; McDonald and Harmon 1989; Pauley et al. 1997).

There are 63 species of mammals known to occur within the NRGNR (NP Species 2003). West Virginia Gap Analysis (2003) predicts the NRGNR to contain 54 of the 59 mammalian species known to occur in West Virginia, and 17 of the 22 mammalian species of special concern in West Virginia. These mammals include the Federally-endangered Indiana bat (*Myotis sodalis*) and the Virginia big-eared bat (*Corynorhinus townsendii virginianus*).

Currently, 233 species of birds are known to occur within the NRGNR (NPSpecies 2003). This represents 125 of the 168 species of birds found in West Virginia, and 25 of the 59 bird species identified as state species of special concern (WV GAP 2003). The NRGNR is globally significant in providing critical habitat for neotropical migratory birds (Mahan 2004). Peregrine falcons have been hacked at sites within the New River Gorge. In addition to the peregrine, another rare raptor, the bald eagle (*Haliaeetus leucocephalus*), has been documented within the NRGNR (NPSpecies 2003).

Thirty-eight species of reptiles have been documented within the NRGNR (NPSpecies 2003). Approximately 31 of the 39 species of reptiles of West Virginia are predicted to occur in the NRGNR, and 10 of the 16 reptile species of special concern are predicted to occur in the NRGNR (WV GAP 2003). Continuous forest, abandoned mine portals, and river/stream systems of the NRGNR provide habitat for a diverse, nationally significant assemblage of amphibians (Mahan 2004). The NRGNR contains approximately 37 of the 45 amphibian species known from West Virginia, and 10 of the 11 state species of special concern (WV GAP 2003).

Hellgrammites (*Megaloptera* sp.) are relatively large aquatic macroinvertebrates that provide food for game fish and bait for anglers, and support recreational and commercial bait fishery in and around the NRGNR (Nielsen and Orth 1988; Roell and Orth 1985). In the NRGNR, macroinvertebrates such as the hellgrammite are found in stream sediments, under rocks, and clinging to macrophytes (Mahan 2004).

The fish species found in the NRGNR represent 68 of the 167 species known from West Virginia, and 7 of the 68 species of special concern from West Virginia (WV GAP 2003). The New River drainage has a native fish fauna that is distinct from the rest of the Ohio River system (Jenkins and Burkhead 1994). The fauna are composed of relatively few native species with a

high proportion of these species being endemic (Lincoln et al. 1982). The high rate of endemism of fish species in the New River drainage is primarily due to the isolation of the New River from neighboring river systems by Kanawha Falls (Sheldon 1988). Seven species of fish are endemic to the New River drainage, and are found nowhere else in the world (Stauffer et al. 1980; Jenkins and Burkhead 1994).

The NRGNR supports one of the most important warm-water fisheries in West Virginia and is one of the most heavily fished areas in the eastern United States (Purvis et al. 2002; Jones and Purvis 2003). The New River within the NRGNR is regionally significant from a recreational perspective. The stretch of river from Hinton to Sandstone Falls is one of the most popular fishing areas in West Virginia (Buhlmann 1990). In 2001, 318,000 resident and nonresident anglers fished in West Virginia. Among this group of anglers, a total of 102 million dollars was spent on fishing trip-related expenditures and equipment purchases (U.S. DOI 2001). In addition, white water rafting trips through the park support a multi-million dollar a year industry.

Jirka and Neves (1987) identified eight species of mussels in the NRGNR that were predominately found on gravel, cobble, and sometimes sandy substrates. The pocketbook mussel, wavy-rayed lampmussel, elktoe mussel, mapleleaf mussel, mucket mussel, and the pistolgrip mussel have been documented in the NRGNR (Mahan 2004). Although the NRGNR supports abundant mussel fauna, it is relatively low in species diversity primarily due to physical barriers such as the Kanawha Falls (Jirka and Neves 1987).

Legislated Protection of the NRGNR

Recognizing the significant importance of the New River to the public, a number of congressional and presidential legislations were enacted in order to protect this natural resource for the use and enjoyment of future generations.

The NRGNR was established by Public Law 95-625 on November 10, 1978, for "the purpose of conserving and interpreting outstanding natural, scenic, and historic values and objects in and around the New River Gorge and preserving as a free-flowing stream an important segment of the New River in West Virginia for the benefit and enjoyment of present and future generations" (Mahan 2004). The authorization of NRGNR directed the NPS to administer, protect, and develop NRGNR in accordance with the Organic Act (39 Stat. 535).

In 1977, the Service and the West Virginia Division of Natural Resources (WVDNR) identified the New River Gorge as a nationally significant and unique wildlife ecosystem. Significant or unique wildlife ecosystems are areas which have wildlife or wildlife habitat values that go beyond local values in the sense that they provide substantial benefits to the public over a wide geographical area or are significantly different from other habitats in the region.

In 1986, the Service designated the NRGNR as Resource Category 1, in accordance with the Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981). According to the Service's Mitigation Policy, the designation criterion for Resource Category 1 is as follows: habitat to be impacted is of high value for evaluation species and is unique and irreplaceable on a national basis or in the ecoregion section. The Mitigation Goal for Resource Category 1 is "no loss of existing habitat value".

The State of West Virginia designated the following as a critical resource water under provisions of the Natural Streams Preservation Act: New River from its confluence with the Gauley River to its confluence with the Greenbrier River. The Natural Streams Preservation Act declares that it be the public policy of the State to secure for the citizens of West Virginia, of present and future generations, the benefits of an enduring resource of free-flowing streams possessing outstanding scenic, recreational, geological, fish and wildlife, botanical, historical, archeological, or other scientific or cultural values (WV State Code Article 13). The WVDNR also lists the New River as a High Quality Stream in West Virginia.

In addition, the New River is classified as an American Heritage River by the United States Environmental Protection Agency's (EPA) American Heritage River Initiative. Presidential Executive Order 13061 identifies three objectives for American Heritage Rivers: natural resource and environmental conservation, economic revitalization, and historic and cultural preservation. Section 1(j) and 4(f) of this Executive Order requires Federal agencies to develop policies to ensure their actions will have a positive effect on the natural, historic, economic, and cultural resources of American Heritage River communities. The EPA also considers the New River to be an Aquatic Resource of National Importance.

With the designation of the NRGNR, the New River area is experiencing increasing public visitation. In 1975, the number of NRGNR users was estimated at 50,000 and in 1982, the estimate grew to 100,000. By 1994, the number of public visitors had climbed to over one million per year (NPS 1994a). The public has undoubtedly shown a vested interest in the continued protection of the significant resources of the NRGNR.

Proposed Project

Your May 21, 2014, correspondence states that the project involves rehabilitating the existing structure to maintain or increase the current load rating for vehicular access and improving pedestrian access. The Service highly recommends that this rehabilitation project be conducted without any in-stream work to avoid adverse impacts to the New River and its aquatic habitats.

When project plans are finalized, the Service will be able to provide further information on concurrence. If you have any questions regarding this letter, please contact Liz Stout of my staff at (304) 636-6586, ext. 15, or elizabeth_stout@fws.gov or at the letterhead address.

Sincerely,

Barbara Douglas
for

John E. Schmidt
Field Supervisor

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