

Appendix B – Comments Received on the Draft Environmental Assessment and TVA’s Responses to Those Comments

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TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER
P. O. BOX 40747
NASHVILLE, TENNESSEE 37204

RECEIVED

November 26, 2007

NOV 29 2007

Jon M. Loney
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902-1401

Doc. Type: EA - Admin Record
Index Field: Agency Comment
Project Name: Seven Islands Bridge
Project No.: 2007-30

Re: Draft Environmental Assessment (DEA) – Proposed Pedestrian Bridge across the French Broad River at the Seven Islands Wildlife Refuge in east Knox County, Tennessee

Dear Mr. Loney:

The Tennessee Wildlife Resources Agency has received and reviewed the Draft Environmental Assessment regarding the proposed pedestrian bridge across the French Broad River at the Seven Islands Wildlife Refuge in east Knox County, Tennessee. It is our position that Alternative B (construction using barges and mats) will minimize impacts to resource values when compared to Alternative C (construction using rock pads). It is also our position that Alternative B will have less short and long term impacts of fisheries and mussel resources found within the project impact zone than would Alternative C.

We do have concerns that the proposed Section 26a condition which would require mussels to "be relocated to areas of appropriate habitat at least 50 feet from instream disturbance" may be insufficient to minimize impacts to mussels if Alternative C is chosen due to increased water velocities scouring the stream bed in some sections of the stream and slower velocities that would increase sedimentation in other sections of the stream that would be associated with the construction using rock pads. If Alternative C is chosen, relocated mussels need to be placed in areas of appropriate habitat and at an appropriate distance from the rock pads and the associated effects of these pads on water velocities to minimize potential impacts to the relocated mussels which probably will be far greater than 50 feet.

Thank you for the opportunity to review and comment on this Draft Environmental Assessment.

Sincerely,

Robert M. Todd

Robert M. Todd
Fish and Wildlife Environmentalist

The State of Tennessee

IS AN EQUAL OPPORTUNITY, EQUAL ACCESS, AFFIRMATIVE ACTION EMPLOYER

Response:

TWRA's preference for Alternative B is noted. Under Alternative D (the preferred alternative), a suspension bridge would be constructed. This design would avoid the need for piers or any other instream disturbance. Thus, there would be minimal impacts to aquatic life and no need to relocate mussels under Alternative D.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900 - JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334

NOV 5 2007

Doc. Type: EA Admin Report
Index Field: Agency Comment
Project Name: Seven Islands Bridge
Project No.: 2007 30

October 30, 2007

Mr. Jon M. Loney
Environmental Stewardship and Policy
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902-1499

Subject: Comments: Pedestrian Bridge at Seven Island Wildlife Refuge

Dear Mr. Loney:

We have reviewed your Draft Environmental Assessment to build a proposed pedestrian bridge across the French Broad River at the Seven Islands Wildlife Refuge, and offer the following comments.

- Overall, the report is well written and addresses alternatives and effects.
- We suggest that you provide a better map than Figure 1 as this figure is difficult to interpret and understand. It would be helpful to show a close-up of the area, with the proposed bridge, roads, refuge border and other features.
- It is not clear why an alternative was not proposed to put the bridge farther downstream so that it spans the two sections of river that are separated by an island. This would presumably reduce the number of piers in the water and perhaps be less expensive.
- Were endangered/threatened species noted within a one-mile radius for USFWS and a four-mile radius for TDEC, as is required of TDOT?
- TDOT is required to conduct mussel and fish sweeps prior to instream work, but only mussel sweeps are mentioned herein.
- The correspondence from USFWS and TDEC (TWRA) should be included with this report. If there are endangered/threatened mussels and fish in the area, have you done a Biological Assessment for USFWS?

Comments: Pedestrian Bridge at Seven Island Wildlife Refuge
October 30, 2007
Page 2

- If there is a potential for materials to enter the water, how will these be handled? For example, what will be the containment for concrete dust, petroleum products, debris, etc.?

Thank you for the opportunity to review your document. If you need further clarification on any of these comments, please feel free to contact me at Harold.Jackson@state.tn.us or 615-741-2613.

Sincerely yours,



Harold E. Jackson
Interim Director

HEJjrj

Cc: Charles Bush
Doug Delaney
John Hewitt

Response:

Additional vicinity maps have been provided in the final EA. A site further downstream was considered infeasible because it would involve foot traffic on the island, which is private property and not part of the refuge. The TVA Natural Heritage database was accessed to identify known occurrences of threatened and endangered species within a 5-mile radius of the proposed project site and 10 miles upstream and downstream of the proposed bridge site. A mussel survey was conducted, and divers searched for snail darters during this survey. Correspondence from the U.S. Fish and Wildlife Service, the Tennessee Department of Environment and Conservation, and the Tennessee Wildlife Resources Agency has been included in the final EA. Because the implementation of the preferred alternative, a suspension bridge, would not result in the placement of piers or other structures in the water, TVA has determined that the proposed action is not likely to adversely affect federally listed threatened or endangered species. The U.S. Fish and Wildlife Service concurred with this determination. Preparation of a Biological Assessment is not necessary. Precautions would be taken during construction to prevent unwanted material from entering the water.

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NOV 15 2007

Doc. Type: EA Admin Record
Index Field: Admin Comment
Project Name: Seven Islands Bridge
Project No.: 2007-30

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER POLLUTION CONTROL
401 CHURCH STREET
6TH FLOOR L&C ANNEX
NASHVILLE, TN 37243

October 16, 2007

Mr. Jon M. Loney
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902-1401

**SUBJECT: Knox County 7 Islands Wildlife Refuge Pedestrian Footbridge
Draft Environmental Assessment (DEA)**

Dear Mr. Loney:

Thank you for your recent request for preliminary information on the above referenced proposed project in Knox County, Tennessee, relative to any potential environmental impacts or concerns the Division of Water Pollution Control (division) may have.

We have reviewed the DEA and offer the following comments:

- A bridge of this scale and length, utilizing 9 in stream piers, will require an Individual Aquatic Resource Alteration Permit (ARAP) from the division.
- The French Broad River at this point is High Quality Waters, due to presence of snail darters, pink mucket, lake sturgeon, and blue sucker. This also necessitates an Individual ARAP permit.
- The specifics of the design and potential habitat impacts will be evaluated as part of the permit review when the application is received, but in general, the division will have concerns about the location and design of the bridge piers in the river. (For example, will the piers create areas of scour around them that will alter shoal habitat in a negative way for snail darters and muckets)?

TVA will also need to apply for coverage under Tennessee's *General NPDES Permit for Discharges of Storm Water Associated with Construction Activities* (CGP) for any land disturbance of one acre or more.

Page 2 of 2
November 2, 2007

Please understand that there may be other regulatory programs applicable to this project that are administered by other divisions of the Department of Environment and Conservation. The applicant is responsible to determine all regulatory programs that are applicable to this project. This letter is intended to give information on this division's regulatory role in the process and to provide guidance on possible impacts to waters of the state. It is **not** a complete evaluation of all potential environmental impacts that this project could have on the affected watersheds. A complete evaluation of the proposed project will be done when detailed plans and permit applications are submitted to the division.

We encourage you to work with both Mr. Jonathon Burr with the Knoxville Environmental Field Office and Mr. Dan Eagar with the Natural Resources Section in the Nashville Central Office during the development of the plans for the pedestrian footbridge project at 7 Islands Wildlife Refuge. Mr. Burr may be reached at (865)-594-5520 or through his email at Jonathon.Burr@state.tn.us and Mr. Eagar may be reached at (615) 532-0708 or through his email at Dan.Eagar@state.tn.us. We appreciate your offer to address these issues through the environmental assessment process.

Sincerely,

A handwritten signature in black ink that reads "Regan McGahen" with a stylized flourish at the end.

Regan McGahen
Environmental Specialist
Division of Water Pollution Control

cc: File
Mary Parkman, TDEC - Office of General Counsel
Dan Eagar, Water Pollution Control-Natural Resources Section
Jonathon Burr, Water Pollution Control-Knoxville

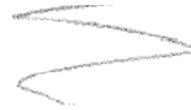
Response:

The need for the applicant to secure an ARAP is noted. The preferred alternative involves the construction of a suspension bridge. This design does not require the placement of piers in the river, and potential impacts to aquatic life would be avoided. The applicant will secure a National Pollutant Discharge Elimination System permit if necessary.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501



October 15, 2007

Environmental Stewardship and Policy
OUF 18 2007
Doc Type: EA Administrative Record
Index Field: Agency Comment
Project Name: Seven Islands Bridge
Project Number: 2007-30

Ms. Peggy Shute
Manager, Regional Natural Heritage
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902-1401

Re: FWS #08-FA-0091

Dear Ms. Shute:

This is in response to a September 24, 2007, email from Peter Scheffler of your agency, transmitting a draft environmental assessment for the issuance of a Tennessee Valley Authority permit to the Knox County Division of Parks and Recreation for the proposed construction of a pedestrian bridge over the French Broad River at Seven Islands in Knox County, Tennessee. Fish and Wildlife Service biologists have reviewed the document and we offer the following comments.

The draft environmental assessment contains a description of the fish and wildlife resources at the site of the proposed construction. It also contains evaluations of potential impacts to those resources from implementation of each of three alternatives.

According to our records, the following federally listed species may occur in the project impact area:

Pink mucket (mussel) – *Lampsilis abrupta* (E)
Snail darter – *Percina tanasi* (T)

We agree that implementation of Alternative A – the “No Action” alternative – would not adversely affect either of the above-listed species. Implementation of Alternative B – issuance of a permit and construction of the bridge by use of floating barges and mats placed on the river bottom – could potentially have adverse effects on listed species. Alternative C – issuance of a permit and construction of a bridge by use of rock pads could have adverse effects on the listed species.

We agree that implementation and strict adherence to Best Management Practices would minimize the potential for adverse effects; however, any mussels in the “footprints” of the nine in-river bridge piers would be directly affected and would likely be destroyed. Relocation of mussels from those areas would eliminate the potential for direct mortality; however, we agree that if an individual of the pink mucket were found during relocation, that individual would have to be returned to the point of collection. Relocation efforts would have to cease pending completion of formal consultation.

We also agree with the evaluation of impacts associated with implementation of Alternative C. This alternative would adversely affect a much larger area due to scour and deposition resulting from construction and subsequent removal of rock pads in the river. This alternative would require initiation of formal consultation; however, we recommend that it be dropped from further consideration because of its potential to cause long-term adverse impacts to aquatic habitat in and outside of the project area.

The project plans for all alternatives should contain measures to prevent sedimentation. Use of Best Management Practices should be included. Sediment controls should include, but not necessarily be limited to: silt fence, staked hay bales, rock checks, brush barriers, settling basins, and diversion ditches. These measures should be used singly or in combination to maximize sediment control. Sediment structures should be in place before soil disturbance begins and they should be inspected, repaired as needed, and cleaned regularly. Cofferdams or other instream structures should not be constructed during the snail darter spawning season (i.e., January through March). In addition to sedimentation, we are concerned about pouring of concrete in the river. As stated in the draft environmental assessment, uncured concrete is highly toxic to aquatic organisms. Pouring of the pier footers should, therefore, be closely monitored. If concrete is observed leaking through a cofferdam, pouring should cease immediately and action should be taken to stop the leak. Pouring should not resume until leaks have been stopped.

To comply with section 7 of the Endangered Species Act, the applicant should select one of the alternatives addressed in the environmental assessment. The applicant, in coordination with Tennessee Valley Authority personnel, should prepare a biological assessment and make a determination of whether or not the selected alternative is or is not likely to adversely affect the pink mucket pearl mussel and the snail darter. The biological assessment should be submitted to this office for review and concurrence.

Thank you for the opportunity to comment. We look forward to working with you further to discuss consultation requirements. If you have any questions, please contact Jim Widlak of my staff at 931/528-6481, ext. 202.

Sincerely,



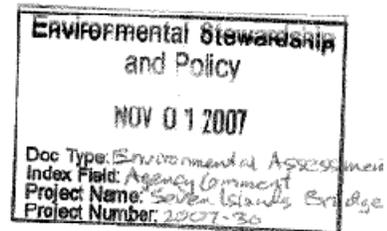
Lee A. Barclay, Ph.D.
Field Supervisor

Response:

The applicant's revised bridge design, a suspension bridge, was developed in response to concerns about potential effects to listed aquatic species and to aquatic life in general. The new design as described as Alternative D in the final EA involves the construction of a suspension bridge. This design does not require the placement of piers in the river, and potential adverse effects to aquatic life would be avoided. Additional informal consultation has been undertaken, and USFWS has concurred with TVA's "not likely to adversely affect" determination (see Appendix A, letter of July 22, 2009, from Mary Jennings).

Seven Islands Pedestrian Bridge

073120082
#073121628



October 31, 2007

Mr. Peter K. Scheffer
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, TN 37902

Dear Mr. Scheffer:

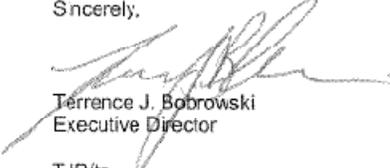
SUBJECT: Result of Regional Review
Tennessee Valley Authority - Draft Environmental Assessment for the Construction
of a Pedestrian Bridge at Seven Islands Wildlife Refuge in Knox County

The East Tennessee Development District has completed its review of the above mentioned proposal, in its role as a regional clearinghouse to review state and federally-assisted projects.

ETDD review of this proposal has found no conflicts with the plans or programs of the District or other agencies in the region. However, ETDD or other reviewing agencies may wish to comment further at a later time.

We appreciate the opportunity to work with you in coordinating projects in the region.

Sincerely,


Terrence J. Bobrowski
Executive Director

TJB/tc

P.O. Box 249, Alcoa, TN 37701-0249
Phone: (865)273-6003 Fax: (865)273-6010
Web Page: <http://www.kornet.org/etdd>

Response:
The comment is noted.



United States Department of the Interior



NATIONAL PARK SERVICE
Rivers, Trails, and Conservation Assistance
Southern Appalachian Field Office
175 Hamm Road, Suite C
Chattanooga, Tennessee 37405

IN REPLY REFER TO:

Electronic transmittal:

December 4, 2007

Peter K. Scheffler
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Re: Seven Islands Pedestrian Bridge

Dear Mr. Scheffler:

Thank you for the opportunity to review and provide comment regarding Draft Environmental Assessment (DEA) of the above referenced project and potential impacts to rivers listed on the Nationwide Rivers Inventory (NRI).

As stated in our July 31, 2007 letter, the NRI was created in partial fulfillment of Section 5(d) of the Wild and Scenic Rivers Act. A subsequent 1979 presidential directive requires each federal agency, as part of its normal planning and environmental review processes, to take care to avoid or mitigate adverse effects on rivers identified in the NRI, particularly if those actions would foreclose potential designation as a "wild," "scenic," or "recreational," river.

Although responsible for maintaining and overseeing the NRI, the National Park Service (NPS) does not make determinations as to the extent of impact of a given action. Consistent with guidance provide by the White House's Council on Environmental Quality (CEQ), the NPS makes recommendations for avoiding and/or mitigating actions that could potentially foreclose eligibility (as we did in the July 31 letter). However, the burden is placed upon the permitting agency, in this case TVA, to (1) determine whether the proposed action could affect an NRI river, (2) determine whether the proposed action could have an adverse effect on the natural, cultural, and recreational values of the NRI river segment, (3) determine whether the proposed action could foreclose options to classify any portion of the NRI segment as wild, scenic, or recreation rivers (as defined by the Wild and Scenic Rivers Act), and (4) incorporate avoidance/mitigation measures



into the proposed action to the maximum extent feasible within the agency's authority.

The DEA addresses the NRI designation primarily under the "Impacts to Recreation" section beginning on page 19; however, it does not address the project's potential impacts in the context of the CEQ steps outlined above. The document should evaluate each alternative in accordance with these steps, and then indicate a preferred alternative based in part on the implementation of the CEQ steps.

Thank you again for consulting with the National Park Service. Please do not hesitate to contact me if you have any questions or if I can be of further assistance.

Sincerely,

_____/s/_____
Jeffrey R. Duncan, Ph.D.
Regional Rivers Program Manager

Response:

The analysis of potential effects to the French Broad with respect to its status as an NRI stream has been expanded in the final EA.

Commenter: Patrick Rakes, Knoxville, Tennessee

Comments: I use the Seven Islands Park frequently for hiking, running, birding, photography, and canoeing. While I think the bridge is a good idea for connecting the park to the south side of the river, I have major concerns about it's design, exact location, and construction impacts. All should minimize their negative impacts, even if it drives costs higher. Is everyone aware there's a bald eagle nest overlooking the bridge construction site?! (Actually, about 100 meters downstream). Have knowledgeable engineers been consulted in concert with hydrologists and aquatic biologists to determine the likelihood of permanent erosive alterations of the substrate below the piers? Information for this comment opportunity only addresses construction alternatives (B is DEFINITELY, OBVIOUSLY the best!)-- what about design and precise location alternatives? It would be unforgiveable if the bridge resulted in significant erosion of the shoals and island downstream!

Response:

Measures to avoid adverse effects are described in the final EA. TVA is aware of an eagle nest near the proposed bridge. However, because of the distance from the nest to the proposed bridge site, no adverse effects to the eagles are anticipated. Please note that an additional alternative involving construction of a suspension bridge spanning the river has been evaluated in the final environmental assessment.

Commenter: Patrick Rakes, Knoxville, Tennessee

Comments: I've already commented, but wanted to pass along something I read about in the journal, "Fisheries" (Vol 32:9), this month-- a frame and fabric coffer dam system for low-impact construction in streams and rivers. For more information, see their website: <http://www.portadam.com/> Might be a lot less expensive technique than traditional systems...

Response:

The comment is noted. The selection of cofferdam design and its construction are the responsibility of the contractor selected by the Public Building Authority.

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