Document Type: Index Field:

Project Name: Project Number: EA-Administrative Record Finding of No Significant Impact (FONSI) Defoor Brothers Development 2008-66

SUPPLEMENTAL ANALYSIS AND REVISED FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

DEFOOR BROTHERS DEVELOPMENT FILL PLACEMENT REQUEST ON NICKAJACK RESERVOIR HAMILTON COUNTY, TENNESSEE

In October 2008, the Tennessee Valley Authority (TVA) issued a finding of no significant impact (FONSI) for a proposal to place 3,800 cubic yards of fill on 2.4 acres of private property in the 100-year floodplain within TVA's Section 26a jurisdiction at 600 River Street in downtown Chattanooga, Tennessee on Nickajack Reservoir (see Figure 1). The applicant intended to construct a residential condominium community. The FONSI was based on TVA's environmental analysis in an environmental assessment (EA) also completed in October 2008.

In March 2023, TVA received an application from Ken Defoor for Section 26a approval (see Attachment A) with a revised plan to place 6,500 cubic yards (an additional 2,700 cubic yards) of fill in the same project area of the 100-year floodplain; the project from the 2008 EA was never completed. The fill placement request would increase the volume of fill and the first-floor elevation to a minimum of one foot above the 100-year floodplain. Also, the applicant has proposed point repairs to the existing seawall. The planned project is located on privately-owned property within TVA's Section 26a jurisdiction. TVA has performed additional analysis of potential impacts that could result due to the project modifications and is issuing this revised FONSI.

I. Background

The planned project, located on the north shore of the Tennessee River near river mile 464.5R on Nickajack Reservoir in Hamilton County, Tennessee, involves 2.4 acres of land previously occupied by Fehn's Restaurant in downtown Chattanooga (see Figure 1). The restaurant facilities have all been demolished, and the property consists of a grassy lawn and adjacent paved parking area. Examination of soil boring data indicated that the site contains fill previously placed that extends a depth of 1 foot to 8 feet across the property. There is an existing seawall, and the applicant has been granted an Aquatic Resource Alteration Permit (ARAP) by the Tennessee Department of Environment and Conservation (TDEC; see Attachment B) for the proposed point repairs to the seawall.

II. Modified Proposed Action

The proposed 6,500 cubic yards of fill placement would be within the 100-year floodplain and requires approval under Section 26a of the TVA Act. The location of the proposed fill and development is in the same project area as before at Tennessee River mile (TRM) 464.5 on the right bank on Nickajack Reservoir (see Figure 1). The fill placement would elevate the first floor of the proposed development to a minimum of 1 foot above the 100-year flood elevation to comply with the City of Chattanooga's floodplain ordinance. The areas around the planned



Figure 1. Defoor Project Area in Downtown Chattanooga, Tennessee

building and parking areas would also be raised above the 100-year flood elevation. An existing seawall would remain and would be repaired consistent with the ARAP General Permit for Maintenance Activities issued by TDEC (see Attachment B). There would be no docks or other water use facilities associated with the proposed development.

III. Previous Environmental Assessment

In October 2008, TVA completed the EA and issued a FONSI for fill placement activities proposed by Defoor Brothers Construction on Nickajack Reservoir to facilitate the construction of condominiums. In the 2008 EA, TVA analyzed two alternatives: a No Action Alternative and the proposed Action Alternative where TVA would issue approval under Section 26a of the TVA Act to authorize placement of 3,800 cubic yards of fill within the 100-year floodplain. The fill placement would enable the applicant to construct the condominiums as planned.

TVA determined that the proposed fill placement would not affect wetlands, endangered or threatened species, navigation, or recreational activities. The proposed action would potentially affect cultural resources, floodplains, and water quality and aquatic life. TVA determined that there was no practicable alternative to filling in the floodplain and that the proposed project would comply with Executive Order (EO) 11988 (Floodplain Management). The proposed fill would adversely affect an archaeological site (40HA524) determined to be eligible for listing in the National Register of Historic Places (NRHP). The placement of fill was contingent upon completion of archaeological site mitigation. TVA executed a memorandum of agreement (MOA) with the Tennessee State Historic Preservation Officer (SHPO), which outlined the treatment by data recovery of the affected site in compliance with Section 106 of the National Historic Preservation Act requirements. TVA consulted with 15 Native American Tribes, two of which requested to be invited signatories to the MOA. TVA determined that, with implementation of the terms of the executed MOA, effects on cultural resources would be insignificant. The proper implementation of the applicant's detailed Grading and Erosion Plan would reduce the potential impacts to water quality and associated aquatic life from surface water runoff to insignificant levels.

This supplemental analysis has been prepared to review the latest revisions to the applicant's plans to increase the amount of fill placement in the 100-year floodplain from 3,800 cubic yards to 6,500 cubic yards. The existing seawall would remain and would be repaired. Fill material would be delivered to the project site by roadway and not by barge. TVA has determined that the additional fill placement would not alter the analysis in the 2008 EA related to wetlands, endangered or threatened plants and aquatic animal species, navigation, or recreational activities; these resources are not discussed further. The analysis below considers whether the modified project area would affect cultural resources, floodplains, and water quality and aquatic life. A section on endangered or threatened terrestrial animals has been added to address potential impacts to bats.

a. Archaeological and Historical Resources

In the 2008 EA, TVA consulted under Section 106 of the National Historic Preservation Act (NHPA) with the Tennessee SHPO and federally recognized Indian tribes (Tribes) regarding the results of a Phase I archaeological survey. The SHPO concurred that the project area contains archaeological resources potentially eligible for listing in the NRHP and that site 40HA524 should either be avoided or subjected to Phase II archaeological testing. The applicant determined that site 40HA524 could not be avoided and, therefore, would proceed with Phase III data recovery at the site. TVA executed a MOA with the Tennessee SHPO, which outlines the treatment by data recovery of the affected site, and which demonstrates compliance with

Section 106 requirements. In April 2009, the Phase III data recovery for site 40HA524 was completed. As stipulated in the MOA, adverse effects to the site were mitigated through data recovery excavations.

Under the modified proposed action, an additional 2,700 cubic yards of fill would be placed in the planned project area and the existing seawall would be repaired. TVA recommended that the area of potential effects (APE) for this project be considered as the areas where ground disturbing activities would take place, as well as the adjoining and adjacent parcels to the proposed project, where visual effects upon above-ground resources could occur.

TVA reviewed the modified project alterations and determined any adverse effects to archaeological site 40HA524 were mitigated during the previous review of the project. As the project has not substantially changed, TVA finds that the undertaking would have no adverse effect on archaeological resources. However, the desktop review produced no evidence that architectural resources within the APE were assessed during the previous review. TVA architectural historians conducted a historic architectural resource field review of the APE in July 2023 for the proposed project and found that the proposed project of a six-story multiple-residential building would not diminish the integrity of location, setting, feeling, or association of the area nor that of any historic architectural resources. TVA consulted with the Tennessee SHPO and Tribes on the modified proposed action. TVA received concurrence with its findings and the SHPO indicated that they find that the project as currently proposed would not adversely affect historic properties (see Attachment C).

b. Floodplains

In the 2008 EA, TVA concurred with the finding that in order to develop the planned project area so that it would not flood, there are no alternatives to filling in the floodplain because the site must be elevated so that the first floor of the building would be above the 100-year flood elevation and the parking area below the building would not be flooded during a 100-year flood. A Chattanooga zoning official indicated that the project would comply with Chattanooga's local floodplain regulations. TVA therefore determined that the proposed project would comply with EO 11988. TVA also indicated from a standpoint of flood control, that it would have no objection.

Under the modified proposed action, TVA finds the previous analysis would be sufficient. The applicant has provided documentation from the City of Chattanooga stating that the proposed development would comply with Chattanooga's floodplain ordinance (see Attachment D).

c. Water Quality and Aquatic Life

In the 2008 EA, TVA determined construction of the proposed development has the potential to impact water quality and aquatic life in the adjacent Tennessee River from storm water runoff. However, proper implementation of the applicant's detailed Grading and Erosion Control Plan would reduce the potential impacts to water quality and associated aquatic life from surface water runoff to insignificant levels.

Under the modified proposed action, the proposed project involves fill placement on non-TVA land adjacent to the reservoir shoreline. The existing seawall would remain and would be repaired. Fill would be delivered to the site by roadway and would not be delivered by barge. Short term water pollutants such as sedimentation may occur as a result of the proposed construction activities. Standard construction and erosion control best management practices will be used to minimize and prevent sedimentation and runoff of soils or concrete. Temporary impacts associated with construction and erosion would be eventually eliminated as impacted

areas are revegetated or otherwise stabilized. Additionally, secondary containment measures for hydraulic fluid, oils, and gasoline for heavy equipment will be available onsite to minimize and prevent runoff of spills into nearby water bodies. With implementation of best management practices, effects would be minimal to water quality and aquatic life.

d. Terrestrial Zoology

Proposed fill placement and point repairs to the existing seawall associated with this Section 26a application were addressed in TVA's programmatic consultation with the U.S. Fish and Wildlife Service on routine actions and federally listed bats in accordance with Endangered Species Act Section 7(a)(2), completed April 2018, and updated April 2023. For those activities with potential to affect bats, TVA committed to implement specific conservation measures when impacts to federally listed bat species are expected. Relevant conservation measures to this project are identified in the bat strategy form (see Attachment E) and must be reviewed and implemented as part of the approved project.

Permitting and Consultation

TVA has consulted with the Tennessee SHPO and Tribes concerning potential impacts to cultural resources and as well as addressing potential impacts to threatened and endangered bat species through a programmatic consultation with the U.S. Fish and Wildlife Service on routine actions and federally listed bats in accordance with Endangered Species Act Section 7(a)(2), completed April 2018, and updated April 2023.

Mitigation Measures and Commitments

The applicant would implement construction related best management practices consistent with the Grading and Erosion Control Plan to avoid or minimize potential adverse environmental effects resulting from the proposed project activities.

During its review of the modified proposed action, TVA did not identify the need for any additional non-routine measures to address impacts occurring to the modified project area.

Conclusion and Findings

Based on the findings of the 2008 EA and additional analysis addressed here, TVA concludes that the modified proposed action to place 6,500 cubic yards of fill within the proposed 2.4-acre project area would not result in significant environmental impacts. The existing seawall would be repaired, and fill would be delivered to the site by roadway and would not be delivered by barge. Therefore, consistent with TVA's 2008 finding, the modified proposed action would not be a major federal action significantly affecting the environment and, accordingly, an environmental impact statement is not required. This finding is contingent upon the adherence to all applicable regulatory and permitting requirements and implementation of the measures identified above and in the 2008 FONSI that minimize or avoid potential impacts to the environment.

Dawn Booker Senior Manager, NEPA Compliance Environment & Sustainability Tennessee Valley Authority

March 29, 2024 Date Signed

Attachments

Attachment A – Section 26a Application - Joint Permit Application

- Attachment B Aquatic Resource Alteration Permit General Permit for Maintenance Activities
- Attachment C Tennessee State Historic Preservation Officer Correspondence
- Attachment D City of Chattanooga Floodplain Ordinance Correspondence
- Attachment E Project Review Form TVA Bat Strategy

Attachment A – Section 26a Permit Application – Joint Permit Application

TVA RESTRICTED INFORMATION

JOINT APPLICATION FORM

Department of the Army/TVA

OMB No. 3316-0060 Exp. Date 06/30/2022

The Department of the Army (DA) permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (P.L. 95-217). These laws require permits authorizing structures and work in or affecting navigable waters of the United States and the discharge of dredged or fill material into waters of the United States. Section 26a of the Tennessee Valley Authority Act, as amended, prohibits the construction, operation, or maintenance of any structure affecting navigation, flood control, or public lands or reservations across, along, or in the Tennessee River or any of its tributaries until plans for such construction, operation, and maintenance have been submitted to and approved by the Tennessee Valley Authority (TVA).

Name and Mailing Address of Applicant:	Name, Mailing Address, and Title of Authorized Agent:				
Ken DeFoor 600 River Street, LLC 801 Broad Street, Suite 200 Chattanooga, TN 37402	Michael A. Price, President MAP Engineers, LLC 7380 Applegate Lane Chattanooga, TN 37421				
Email Address: Ken@defoordevelopments.com	Email Address: mapengr@epbfi.com				
Telephone Number: Home	Telephone Number: Home				
Office <u>423-308-1830</u>	Office 423-855-5554				
Mobile	Mobile				
Facility/Activity Location (include all known information): Address: 600 & 616 River Street, Chattanooga, TN 37405	Reservoir Nickajack (Hales Bar)				
Subdivision, Lot No., and/or Tax Parcel No Parcel #'s 135E-N-022 &	135E-N-022.01				
Stream Name and Mile: Tennessee River - 464.4 R	Longitude/Latitude: 85.30270 W / 35.05973 N				
Application submitted to 🗌 DA 🔳 TVA					
Date activity is proposed to commence: 07/01/2023	Date activity is proposed to be completed: 07/01/2024				

Describe in detail the proposed activity, its purpose and intended use (*private, public, commercial, or other*). Describe structures to be erected including those placed on fills, piles, or floating platforms. Also, describe the type, composition, and quantity of materials to be discharged or placed in the water; the means of conveyance; and the source of discharge or fill material. Please attach additional sheets if needed.

The above applicant proposes to construct a 6-story residential building with associated site amenities at 600 River Street. The existing permitted retaining wall at the river bank will be repaired as needed. Fill will be placed in the 100 year flood (elevation 656.6 per FEMA FIRM panel 47065C0341G) in order to bring the first floor elevation a minimum of 1 foot above the 100 year floodplain. The areas around the building and parking areas will also be brought above the 100 year flood plain. A cross section showing existing and proposed elevations has been included with this submittal. The total amount of fill below the 100 year flood plain is +/- 6,500 CY. (see attached additional sheet for continuation)

Application is hereby made for approval of the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I understand that TVA and the U.S. Army Corps of Engineers may contact an Authorized Agent listed above and such Agent may act on my behalf on all aspects of this application. I agree that, if TVA approves this application, I will comply with the terms and conditions and any special conditions that TVA may impose. Please note the U.S. Army Corps of Engineers may impose additional conditions or restrictions.

-7-23 Ken DeFoor Date Name of Applicant (Printed) Signature of Applicant

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of The United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both. The appropriate DA fee will be assessed when a permit is issued.

Names, addresses, and telephone numbers of adjoining property owners, lessees, etc., whose properties also join the waterway:

Barton Avenue Right-of-Way: Chattanooga Division of Transportation, Ben Taylor, 423-643-5957
 500 River Street: Riveria Villas, Dennis Mobley, 678-612-3286

The Files 5/19/2023 Complete

TVA 17423 [01-24-2022] Page 1 of 2

TVA RESTRICTED INFORMATION

TVA, Chattanooga, TN

Date Paid 5/10/2023

RLR 4024091 Invoice

Nickajack

Date Received

Reservoir

Amount

Shortcode

5/10/2023

3

1000.00 Check No. 001440 \$500

16031 \$500 &

(continuation of project description and additional information)

The approximately 6,500 CY fill volume does include the area of the proposed building footprint that is located within the 100-year floodplain limits. Also note that the basement garage level has a total open space volume of approximately 3,800 CY below the 100-year flood elevation of 656.6 msl, and a vehicular entry door at each end of the building.

Please be advised that Phase 1 and Phase 2 Archaeological Studies were performed on the property by Alexander Archaeological Consultants in December 2005 and June 2006 respectively. A Phase 3 Archaeological Study was performed on the property by the Jeffery L. Brown Institute of Archeology at The University of Tennessee at Chattanooga between August and December of 2008. The archaeological site designation is 40HA524. Per the attached copy of the Final Memorandum of Agreement, dated 9/11/08, between the Applicant, TVA, and Tennessee State Historic Preservation Office, it was determined that "*no evidence to date that human remains, associated or unassociated funerary objects, sacred objects, or objects of cultural patrimony (collectively termed cultural items) are present at site* 40HA524, or at any other location within the project's area of potential effects (APE)" and that in case of the discovery of any cultural items during construction the agreed upon Treatment Plan would be followed.

On October 15th, 2008 Section 26a approval was obtained, see attached document, however, due to the Housing Market and Financial Crisis of 2008-2009 the site work was not initiated within 18 months of issuance and the permit expired. The Applicant has now made the decision to proceed with the proposed development and re-apply for the previously approved 26a permit. The design of the proposed project is essentially the same but with updates to comply with the latest City of Chattanooga land development regulations and requirements.

TVA RESTRICTED INFORMATION

List of previous DA/TVA permits/appr	DVals DA	TVA 79020, 168025 Permit Number		
Previous Property Owner (if known)	DeFoor Brothers Development, LLC			
Is any portion of the activity for which authorization is sought now complete? Yes No (If "Yes" attach explanation) Month and year the activity was completed: . Indicate the existing work on the drawings.				

List all approvals or certifications required by other federal, interstate, state, or local agencies for any structures, construction, discharges, deposits, or other activities described in this application.

	Type Approval	Identification No.	Date of Application	Date of Approval
City of Chattanooga	Land Disturbance Permit	L-23-113	3/03/2023	
TDEC	NPDES NOC	TNR112844	4/18/2016	4/19/2016
Mandanaan ah ar ah				

Project plans or drawings, on paper suitable for reproduction no larger than 11 x 17 inches or in electronic format (dxf, docx, or pdf) must accompany the application. Submit the application to the appropriate TVA and U.S. Army Corps of Engineers offices. An application that is not complete will be returned for additional information.

U.S.A.	C.E. Offices	TVA C	Offices
U.S. Army Corps of Engineers Eastern Regulatory Field Office 501 Adesa Parkway, Suite 250 Lenoir City, Tennessee 37771 (865) 986-7296 U.S. Army Corps of Engineers Regulatory Branch 3701 Bell Road Nashville, Tennessee 37214 (615) 369-7500 U.S. Army Corps of Engineers Norfolk District P.O Box 338 Abingdon, Virginia 24212 (276) 623-5259	U S Army Corps of Engineers Savannah District The Plaza, Suite 130 1590 Adamson Parkway Morrow, Georgia 30260-1763 (678) 422-2729 U S. Army Corps of Engineers Western Regulatory Field Office 2424 Danville Road, SW, Suite N Decatur, Alabarna 35603 (256) 350-5620 U S. Army Corps of Engineers Asheville Regulatory Field Office 151 Patton Avenue, Room 208 Asheville, North Carolina 28801-5006 (828) 271-4856	Tennessee Valley Authority Chattanooga Regional Office 4601 N. Access Road, Bldg B Chattanooga, Tennessee 37415-3825 1-800-882-5263 Tennessee Valley Authority Gray Regional Office 106 Tri-Cities Business Park Drive Gray, Tennessee 37615 1-800-882-5263 Tennessee Valley Authority Guntersville Regional Office 3941 Brashers Chapel Road Guntersville, Alabama 35976 1-800-882-5263 Tennessee Valley Authority Knoxville Regional Office 400 West Summit Hill Drive, WT 11D-K Knoxville, Tennessee 37902 1-800-882-5263	Tennessee Valley Authority Murphy Regional Office 4195 West US Highway 64, Suite 10 Murphy, North Carolina 28906 1-800-882-5263 Tennessee Valley Authonty Muscle Shoals Regional Office Post Office Box 1010, MPB 1H Muscle Shoals, Alabama 35662-1010 1-800-882-5263 Tennessee Valley Authority Paris Regional Office 2835-A East Wood Street Paris, Tennessee 3242-5948 1-800-882-5263 Tennessee Valley Authority Floating Cabin Program Manager 400 West Summit Hill Drive, WT 11D-K Knoxville, Tennessee 37902 1-800-882-5263

Privacy Act Statement

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Burden Estimate Statement

Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Agency Clearance Officer, Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402; and to the Office of Management and Budget, Paperwork Reduction Project (3316-0060), Washington, D.C. 20503.

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TVA RESTRICTED INFORMATION

Attachment B – Aquatic Resource Alteration Permit – General Permit for Maintenance Activities



Under the Aquatic Resource Alteration General Permit for Maintenance Activities

Tennessee Department of Environment and Conservation Division of Water Resources William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor Nashville TN 37243

ARAP - NR2301.145

Under authority of the Tennessee Water Quality Control Act of 1977 (TWQCA, T.C.A. 69-3-101 et seq.) the Division of Water Resources has determined the activity described below would not violate applicable water quality standards.

This activity is governed by the *General Permit* for *Maintenance Activities* issued pursuant to the TWQCA. The work must be accomplished in conformance with accepted plans, specifications, data and other information submitted in support of application NR2301.145 and the terms and conditions set forth in the above referenced general permit.

PERMITTEE:	600 River Street, LLC			
AUTHORIZED WORK:	point repairs to existin	g seawall		
LOCATION:	600 River Street, Hamilton County			
	Latitude: 35.060055	Longitude: -85.302604		
WATERBODY NAME:	Chickamauga Reservo	ir		

EFFECTIVE DATE: 26-JAN-24

This does not preclude requirements of other federal, state or local laws. In particular, work shall not commence until the applicant has received the federal §404 permit from the U. S. Army Corps of Engineers, a §26a permit from the Tennessee Valley Authority or authorization under a Tennessee NPDES Storm Water Construction Permit where necessary. This permit may also serve as a federal §401 water quality certification (pursuant to 33 U.S.C. §1341) since the planned activity was reviewed and the division has reasonable assurance that the activity will be conducted in a manner that will not violate applicable water quality standards (T.C.A. § 69-3-101 et seq. or of § § 301, 302, 303, 306 or 307 of *The Clean Water Act*). The 401 Water Quality Certification Justifications and Citations related to the procedural requirements of §121.7(d) can be found at https://www.tn.gov/environment/permit-permits/water-permits1/aquatic-resource-alteration-permit-arap-.html. A paper copy of the certifications and justifications can also be obtained by contacting water.permits@tn.gov or calling (615) 532-0359.

EXPIRATION DATE: 07-APR-25

The state of Tennessee may modify, suspend or revoke this authorization should the state determine that the activity results in more than an insignificant degradation of applicable water quality standards or violation of the TWQCA. Failure to comply with permit terms may result in penalties in accordance with T.C.A. §69-3-115.



STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION DIVISION OF WATER RESOURCES CHATTANOOGA Environmental Field Office 1301 RIVERFRONT PARKWAY, SUITE 206 CHATTANOOGA, Tn 37402

January 26, 2024

Mr. Ken DeFoor 600 River Street LLC e-copy: ken@defoordevelopments.com 801 Broad Street Suite 200 Chattanooga, TN 37402

Subject: General Permit for Maintenance Activities Aquatic Resource Alteration Permit (ARAP) NR2301.145 River Street Luxury Condominiums 600 River Street, LLC Chattanooga, Hamilton County, Tennessee

Dear Mr. DeFoor:

We have reviewed your application for the proposed point repairs to existing seawall. Pursuant to the *Tennessee Water Quality Control Act of 1977* (T.C.A. §§ 69-3-101 et seq.) and supporting regulations the Division of Water Resources is required to determine whether the activity described in the attached Notice of Coverage will violate applicable water quality standards. This permit may also serve as a federal section 401 water quality certification (pursuant to 33 U.S.C. § 1341). The 401 Water Quality Certification Justifications and Citations related to the procedural requirements of §121.7(d) can be found at https://www.tn.gov/environment/permit-permits/water-permits/l/quatic-resource-alteration-permit-arap-.html. A paper copy of the certifications and justifications can also be obtained by contacting water.permits@tn.gov or calling (615) 532-0359.

This activity is governed by the *General Permit for Maintenance Activities*. The work must be accomplished in conformance with accepted plans and information submitted in support of application NR2301.145 and the limitations and conditions set forth in the *General Permit for Maintenance Activities* (enclosed). It is the responsibility of the permittee to ensure that all contractors involved with this project have read and understand the permit conditions before the project begins.

Please note that dredging or excavation of sediment is limited to the *minimum necessary* to restore the waterway in the immediate vicinity of the structure to the approximate dimensions that existed when the structure was built. Excavation cannot in any circumstance exceed a cumulative maximum of 100 linear feet in any direction of the structure. Adequate erosion controls must be installed prior to construction and maintained during construction. All disturbed areas must be revegetated or otherwise stabilized upon completion of construction.

Please note that authorization under this general permit is only for the construction of the structures and does not authorize water withdrawal or release. These structures may not cause bank erosion due to increased velocity or improper alignment. Adequate erosion controls must be installed prior to construction and maintained during construction of the project. All disturbed areas must be revegetated or otherwise stabilized upon completion of construction.

Annual Maintenance and Coverage Termination

Permittees will be assessed an annual maintenance fee of \$350 for coverages that exceed one year. Please note that this maintenance fee does not grant the right to extend coverage past the expiration date of the General Permit.

Permittees may terminate coverage prior to the expiration date by submitting a completed notice of termination form (NOT). which is available on the division's webpage at http://tdec.tn.gov/etdec/DownloadFile.aspx?row id=CN-1450. A complete NOT should include photodocumentation of the finished project area. The division will notify the permittee that either the NOT was received and accepted, or that the permit coverage is not eligible for termination (due to existing deficiencies) and has not been terminated.

We appreciate your attention to the terms and conditions of this general permit for aquatic resource alteration. If you have any questions, please contact Mr. Jason Dees at (423) 497-6125 or by e-mail at *Jason.Dees@tn.gov*.

Sincerely,

Gennifes Innes

Jennifer Innes Environmental Program Manager

Encl: NOC and copy of general permit

CC: Chattanooga EFO Permit File

Dr. Mounir Minkara, Water Quality Manager, City of Chattanooga MS4 Program, mminkara@chattanooga.gov

Mr. Michael Price, President, MAP Engineers LLC, mapengr@epbfi.com

Attachment C – Tennessee State Historic Preservation Officer Correspondence



400 West Summit Hill Drive, Knoxville, Tennessee 37902

August 8,2023

Mr. E. Patrick McIntyre, Jr. Executive Director and State Historic Preservation Officer Tennessee Historical Commission 2941 Lebanon Road Nashville, Tennessee 37243-0442

Dear Mr. McIntyre:

TENNESSEE VALLEY AUTHORITY (TVA), SECTION 26A PERMIT, KEN DEFOOR, 600 RIVER STREET, LLC, HAMILTON COUNTY, TENNESSEE, (35.05951, -85.30277), (TVA TRACKING NUMBER – CRMS 60284605608)

TVA proposes to grant Section 26a permit to Ken DeFoor on behalf of 600 River Street, LLC, for the placement of approximately 6,500 cubic yards of fill within the 100-year floodplain as part of the construction of a six-story residential building. The project would be located at 600 River Street in Chattanooga, Tennessee, on Nickajack Reservoir near Tennessee River mile 464.4 (35.05951, -85.30277) (Figure 1). The property is the former location of Fehn's Restaurant and is currently covered by mown grass and asphalt parking (Figure 2). The lot encompasses approximately 2.18 acres while the proposed building would include approximately 20,374 square feet. Other amenities would include an underground parking garage (38 spaces), surface parking (71 spaces), a pool, splash pad, and extensive landscaping (Figures 3 and 4). The proposed 6,500 cubic yards of commercially sourced fill would be utilized to bring the first-floor elevation to one foot above the 100-year floodplain, along with the areas around the building and surface parking lot. The project is located on privately-owned property within TVA's Section 26a jurisdiction.

In 2008, TVA completed an Environmental Assessment and issued a Section 26a permit to the applicant for the introduction of approximately 3,800 cubic yards of fill within the 100-year floodplain. The applicant was unable to complete the project, so the permit expired. Their plans for the property have not changed significantly, other than the increase in the quantity of fill from 3,800 cubic yards to 6,500 cubic yards within the same project footprint.

TVA has determined that the proposed activity is an undertaking (as defined at 36 CFR § 800.16(y)) that has the potential to cause effects to historic properties. Given its urban setting, TVA recommends that the area of potential effects (APE) for this project be considered as the areas where ground disturbing activities would take place, as well as the adjoining and adjacent parcels to the proposed project, where visual effects upon above-ground resources could occur (Figure 5).

Mr. E. Patrick McIntyre, Jr. Page 2 August 8, 2023

TVA Cultural Compliance staff conducted background research of the APE using historic USGS topographic maps (1936, 1940, 1940 (1956 edition) 1941, 1941 (1947 edition), 1958 (1959, 1960 editions), 1969, and 1969 (1975, 1978, 1987 editions) Chattanooga, TN), TVA's Cultural Resource Management System (CRMS), and Native American Removal Routes database (NARR), current satellite imagery, National Register of Historic Places (NRHP) data, relevant cultural resources survey reports, the US Department of Agriculture, Soil Conservation Service Web Soil Survey (WSS), Tennessee Division of Archaeology (TDOA) Site File Hub Viewer, the Tennessee Historical Commission (THC) Viewer, the Hamilton County Property Viewer and GIS Civil War Map Viewer, and the Tennessee State Library & Archives (TSLA) online Tennessee Civil War GIS Project interactive portal.

The desktop review for this project found no properties listed or eligible for listing on the NRHP within the APE. Two properties inventoried by the THC are located within the APE northwest of the project footprint (Figure 6). The Kontovich Electrical Building (HN-217) was constructed as a single-family home in 1910, while the Chattanooga Button and Badge Building (HN-218) was constructed in ca. 1930.

According to TVA's CRMS and TDOA's Site File Hub Viewer, archaeological site 40HA524 is partially located within the project footprint (Figure 7). TVA conducted a survey of the tract in 2005 as part of the applicant's prior permit application. The excavation of test units and deep trenches resulted in the recording of site 40HA524 beneath historic fill. The site included Late Archaic, Middle Woodland, Late Woodland, and late Mississippian components and was recommended as potentially eligible for in inclusion on the NRHP (Alexander, et al. 2006). Subsequent archaeological testing revealed stratified deposits dating to the Early, Middle, and Late Archaic, Early, Middle, and Late Woodland, Early, and Late Mississippian periods (Wolke and Alexander 2006). The site was determined to be eligible for inclusion on the NRHP in consultation in 2006.

After considering alternatives, the applicant determined that the only feasible option was to continue with the project as planned, which would result in an adverse effect to site 40HA524. In 2008, TVA executed a Memorandum of Agreement (MOA) with the Tennessee State Historic Preservation Officer. TVA consulted with 15 Native American Tribes, two of which requested to be invited signatories to the MOA. As stipulated in the MOA, adverse effects to the site were mitigated through data recovery excavations. Archaeologists from the University of Tennessee-Chattanooga excavated one large trench with a smaller trench within it to allow for the safe exploration of more deeply buried deposits, along with 12 hand-excavated test units. The excavations revealed nine cultural features and recovered over 6,000 artifacts. Evidence from the artifacts recovered, geomorphology of the site, and paleobotanical remains recovered indicated that the site was primarily occupied during the Middle and Late Archaic periods and did not extend to the depths indicated by prior excavations (Jordan-Greene, et al. 2009).

Based on the results of the desktop review, any adverse effects to archaeological site 40HA524 were mitigated during the previous review of the project. As the project has not substantially changed, TVA finds that the undertaking would have no adverse effect on archaeological resources. However, the desktop review produced no evidence that architectural resources

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within the APE were assessed during the previous review. As such, TVA architectural historians conducted a field review of the APE.

On July 9, 2023, TVA Cultural Resource Staff (CRS) conducted a historic architectural resource field review of the APE for the proposed project. Prior to the field review, TVA CRS conducted a background review of the THC Viewer, historic and current aerial imagery, historic topographic maps, and TVA project review files. Background review indicated that two previously recorded historic architectural resources (HN-217 and HN-218) are located within the APE (see Figure 6).

The field review confirmed that the project area at 600 River Street contains no buildings currently (Figure B). However, there are a total of 5 visible from the project area (Figures C-E). Two buildings are located on the adjoining parcel to the west. Three buildings—HN-217 and HN-218 and a c. 1987 commercial building—are located on the adjacent block northwest of the intersection of River and Fehn Streets and the proposed project location.

The two multiple-residential buildings to the west of the project area comprise Riviera Villas, a condominium complex (see Figure E). Gated and keyed entry to the complex prevented further access to these buildings during the field review. These circa 1966 buildings feature arched colonades; however, both have been significantly modified. The rectangular building closest to the project area features brick and vinyl-clad wall surfaces (Figures F-H). The round building features vinyl-clad wall surfaces (Figures I and J). Both buildings have been modified through alterations including the replacement of all doors and windows throughout, and the addition of vinyl cladding on walls surfaces, colonnades, trim, soffits, and facia. Further, listings for available condominiums available online indicate the interior of these units have been extensively renovated. These extensive alterations have diminished the integrity of materials, workmanship, feeling, and association of these buildings. Therefore, TVA finds they are ineligible for listing in the NRHP.

The three buildings on the adjacent block, northwest of the intersection of River and Fehn Streets, include the two previously recorded resources as well as a c. 1987 commercial building (Figure K). The two previously-recorded historic architectural resources—HN-217 and HN-218—have been modified through alterations. HN-217 has at least four additions extending nearly the entire length of the block (Figures L and M). While both of the previously recorded resources historic architectural resources are at least 50 years old, alterations including the replacement of storefronts, doors, and windows, and the construction of multiple additions have diminished integrity of materials, workmanship, feeling, and association of both HN-217 and HN-218. Further, both of these buildings are located on the most northwestern corner of the APE and face away from the proposed project location (see Figures. The c. 1987 commercial building alterations including the painting of the brick exterior, installation of new doors and windows, and additions. Therefore, TVA finds that all three of the resources on this block are ineligible for listing in the NRHP.

Mr. E. Patrick McIntyre, Jr. Page 4 August 8, 2023

The area surrounding the proposed project area beyond the APE holds architectural resources that have been modified through alterations that have diminished integrity or are architectural resources that lack architectural distinction. Across the river from the proposed project and beyond the APE to the south is the Hunter Museum of American Art, which has been modified and enlarged from its original footprint. Commercial and residential development along the river, as well as the non-historic bridge that borders the eastern edge of the project area have altered the area surrounding the project area. Given the lack of historic architectural resources within the APE and the project's location along a developed riverfront in an urban setting, TVA finds that the proposed project of a six-story multiple-residential building would not diminish the integrity of location, setting, feeling, or association of the area nor that of any historic architectural resources.

Based on the results of the desktop review, the previous archaeological data recovery, and the architectural field review, TVA finds that this undertaking would have no adverse effect on historic properties.

Pursuant to 36 CFR Part 800.3(f)(2), TVA is consulting with federally recognized Indian tribes regarding historic properties within the proposed project's APE that may be of religious and cultural significance and are eligible for the NRHP.

Pursuant to 36 CFR Part 800.5(c) we are notifying you of TVA's finding of no historic properties adversely affected; providing the documentation specified in § 800.11(e); and inviting you to review the finding. Also, we are seeking your agreement with TVA's finding that the undertaking as currently planned will have no adverse effects on historic properties.

Please contact Paul G. Avery by email, pgavery@tva.gov with your comments.

Sincerely,

chather

Michaelyn S. Harle Supervisor, Cultural Project Reviews Cultural Compliance

PGA: ERB Enclosures cc (Enclosures): Ms. Jennifer Barnett Tennessee Division of Archaeology 1216 Foster Avenue, Cole Bldg. #3 Nashville, Tennessee 37210

Reference Cited

Alexander, Lawrence S.

2006 Phase I Archaeological Survey of a Proposed 2.5 Acre Development Parcel at Tennessee River Mile 464.5R in Chattanooga, Hamilton County, Tennessee. Prepared by Alexander Archaeological Consultants, Wildwood, Georgia, for MAP Engineers, Chattanooga, and the Tennessee Valley Authority, Knoxville.

Jordan-Greene, Krista, James N. Greene, Nicholas Honerkamp, James J. Kocis, and Kandace D. Hollenbach

2008 Archaic Adaptation at 40HA524: Results of Phase III Data Recovery. Prepared by the Jeffery L. Brown Institute of Archaeology, University of Tennessee-Chattanooga, for MAP Engineers, Chattanooga.

Wolke, Dale, and Lawrence S. Alexander

2006 Phase II Archaeological Investigations of a 2.5 Acre Development Parcel at Tennessee River Mile 464.5R in Chattanooga, Hamilton County, Tennessee. Prepared by Alexander Archaeological Consultants, Wildwood, Georgia, for MAP Engineers, Chattanooga.

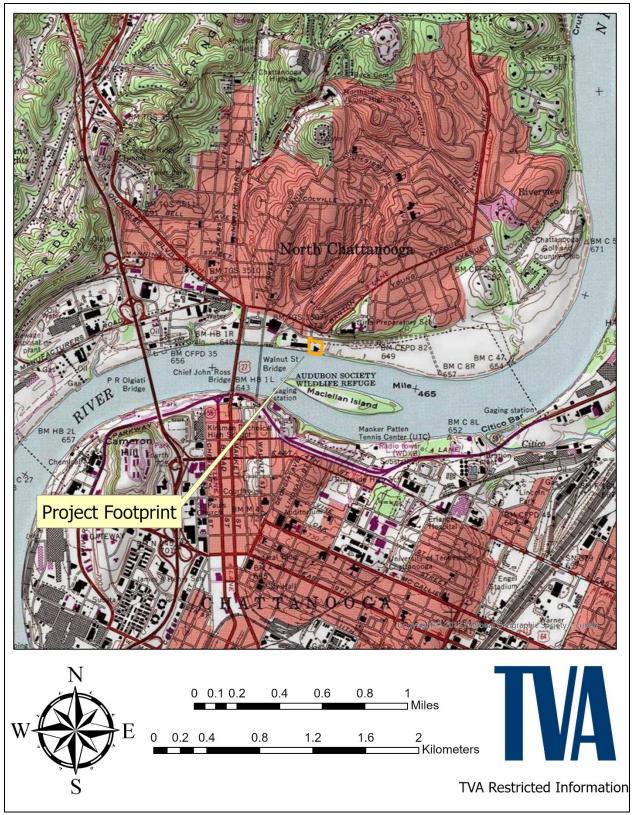


Figure 1. Project footprint depicted on the Chattanooga, TN, topographic map.

From: To: Cc:	TN Help
Subject:	Construction of Six-Story Residential Building, Ken Defoor, 600 River Street, LLC, Tennessee River mile 464.4,
Date:	TVA Tracking Number- CRMS 60284605608 - Project Wednesday, August 9, 2023 4:11:18 PM
Attachments:	State Seal for TDEC.pngx
	patricksignature.pngx

This is an EXTERNAL EMAIL from outside TVA. THINK BEFORE you CLICK links or OPEN attachments. If suspicious, please click the "Report Phishing" button located on the Outlook Toolbar at the top of your screen.



TENNESSEE HISTORICAL COMMISSION STATE HISTORIC PRESERVATION OFFICE 2941 LEBANON PIKE NASHVILLE, TENNESSEE 37243-0442 OFFICE: (615) 532-1550 www.tnhistoricalcommission.org

08-09-2023 15:04:08 CDT

Michaelyn Harle

RE: Tennessee Valley Authority (TVA), Construction of Six-Story Residential Building, Ken Defoor, 600 River Street, LLC, Tennessee River mile 464.4, TVA Tracking Number- CRMS 60284605608, Project#: SHPO0003557, Chattanooga, Hamilton County, TN

Dear Michaelyn Harle:

Pursuant to your request, this office has reviewed documentation concerning the above-referenced undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation Act. This Act requires federal agencies or applicants for federal assistance to consult with the appropriate State Historic Preservation Office before they carry out their proposed undertakings. The Advisory Council on Historic Preservation has codified procedures for carrying out Section 106 review in 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Based on the information provided, we find that the project area contains National Register eligible archaeological site 40HA524. We further find that the project as currently proposed will not adversely affect this historic property.

This office has no objection to the implementation of this project as currently planned. If project plans are changed or previously unevaluated archaeological resources are discovered during project construction, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act. Include the Project # if you need to submit any additional information regarding this undertaking. Questions and comments may be directed to Jennifer Barnett, who drafted this response, at Jennifer.Barnett@tn.gov, +16156874780. We appreciate your cooperation.

Sincerely,

E. Patrick MElntyre, Jr.

E. Patrick McIntyre, Jr. Executive Director and State Historic Preservation Officer

Ref:MSG9436131_ApcbqHekWKeoM6nwbd91

Attachment D – City of Chattanooga Floodplain Ordinance Correspondence



City of Chattanooga Department of Public Works Land Development Office 1250 Market Street, Suite 1000 Chattanooga, Tennessee 37402-2713

Aug 29, 2023

M.A.P. Engineers LLC. ATTN: Mike A. Price P.E. 7380 Applegate Lane Chattanooga TN. 37421

RE: 600 RIVER STREET

M. Price,

The construction documents submitted for the above referenced address, to the City of Chattanooga, Land Development Office, for a condominium development are in compliance with the flood requirements of the City. As construction takes place inspections will be conducted to confirm compliance with the construction documents. There will be additional information submitted once the final grades are established and a surveyor or engineer will confirm compliance with the regulations.

If I can be of further assistance please contact me at 423-643-5802 or via email at <u>drucker@chattanooga.gov</u>

Sincerely,

Dallen y Ru

Dallas Y. Rucker, Jr. C.B.O. Director, Land Development Office

Attachment E – Project Review Form – TVA Bat Strategy

This form should **only** be completed if project includes activities in Tables 2 or 3 (STEP 2 below). This form is not required if project activities are limited to Table 1 (STEP 2) or otherwise determined to have no effect on federally listed bats. If so, include the following statement in your environmental compliance document (e.g., add as a comment in the project CEC): "Project activities limited to Bat Strategy Table 1 or otherwise determined to have no effect on federally listed bats. Bat Strategy Project Review Form NOT required." This form is to assist in determining required conservation measures per TVA's ESA Section 7 programmatic consultation for routine actions and federally listed bats.¹

Project Name:	26a - Defoors Bros Nickaj	ack		Date:	Jun 14,	2023
Contact(s):	Timothy Perkins	CEC#:	50484	Proje	ect ID:	4024091
Project Location	(City, County, State):	Chattanooga, Hamil	ton, TN			

Project Description:

The fill would enable construction of condominiums at 600 River Street in downtown Chattanooga. In March 2023, TVA received a

revised plan requesting to place 6,500 cu yds of fill in the 100-year floodplain and a minimum first floor elevation to 1-foot above the

100-year floodplain (previously 2-ft above). Seawall to remain and be repaired.

SECTION 1: PROJECT INFORMATION - ACTION AND ACTIVITIES

STEP 1) Select TVA Action. If none are applicable, contact environmental support staff, Environmental Project Lead, or Terrestrial Zoologist to discuss whether form (i.e., application of Bat Programmatic Consultation) is appropriate for project:

1 Manage Biological Resources for Biodiversity and Public Use on TVA Reservoir Lands	6 Maintain Existing Electric Transmission Assets
2 Protect Cultural Resources on TVA-Retained Land	7 Convey Property associated with Electric Transmission
3 Manage Land Use and Disposal of TVA-Retained Land	8 Expand or Construct New Electric Transmission Assets
4 Manage Permitting under Section 26a of the TVA Act	9 Promote Economic Development
5 Operate, Maintain, Retire, Expand, Construct Power Plants	10 Promote Mid-Scale Solar Generation

STEP 2) Select all activities from Tables 1, 2, and 3 below that are included in the proposed project.

TABLE 1. Activities with no effect to bats. Conservation measures & completion of bat strategy project review form NOT required.						
1. Loans and/or grant awards	8. Sale of TVA property	19. Site-specific enhancements in streams and reservoirs for aquatic animals				
2. Purchase of property	9. Lease of TVA property	20. Nesting platforms				
3. Purchase of equipment for industrial facilities	10. Deed modification associated with TVA rights or TVA property	41. Minor water-based structures (this does not include boat docks, boat slips or piers)				
4. Environmental education	11. Abandonment of TVA retained rights	42. Internal renovation or internal expansion of an existing facility				
5. Transfer of ROW easement and/or ROW equipment	12. Sufferance agreement	43. Replacement or removal of TL poles				
6. Property and/or equipment transfer	13. Engineering or environmental planning or studies	44. Conductor and overhead ground wire installation and replacement				
7. Easement on TVA property	14. Harbor limits delineation	49. Non-navigable houseboats				

TABLE 2. Activities not likely to adversely affect bats with implementation of conservation measures. Conservation measures and completion of bat strategy project review form REQUIRED; review of bat records in proximity to project NOT required.

18. Erosion control, minor	57. Water intake - non-industrial	79. Swimming pools/associated equipment
24. Tree planting	58. Wastewater outfalls	81. Water intakes – industrial
30. Dredging and excavation; recessed harbor areas	59. Marine fueling facilities	84. On-site/off-site public utility relocation or construction or extension
39. Berm development	60. Commercial water-use facilities (e.g., marinas)	85. Playground equipment - land-based
40. Closed loop heat exchangers (heat pumps)	61. Septic fields	87. Aboveground storage tanks
45. Stream monitoring equipment - placement and use	 66. Private, residential docks, piers, boathouses 	88. Underground storage tanks
46. Floating boat slips within approved harbor limits	67. Siting of temporary office trailers	90. Pond closure
48. Laydown areas	68. Financing for speculative building construction	93. Standard License
50. Minor land based structures	72. Ferry landings/service operations	94. Special Use License
51. Signage installation	74. Recreational vehicle campsites	95. Recreation License
53. Mooring buoys or posts	75. Utility lines/light poles	96. Land Use Permit
56. Culverts	76. Concrete sidewalks	

Table 3: Activities that may adversely affect federally listed bats. Conservation measures AND completion of bat strategy project review form REQUIRED; review of bat records in proximity of project REQUIRED by OSAR/Heritage eMap reviewer or Terrestrial Zoologist.

□ ^{15.}	Windshield and ground surveys for archaeological resources	34.	Mechanical vegetation removal, includes trees or tree branches > 3 inches in diameter	69.	Renovation of existing structures
16.	Drilling	35.	Stabilization (major erosion control)	70.	Lock maintenance/ construction
17.	Mechanical vegetation removal, does not include trees or branches > 3" in diameter (in Table 3 due to potential for woody burn piles)	36.	Grading	71.	Concrete dam modification
21.	Herbicide use	37.	Installation of soil improvements	73.	Boat launching ramps
22	Grubbing	38.	Drain installations for ponds	77.	Construction or expansion of land-based buildings
23.	Prescribed burns	47.	Conduit installation	78.	Wastewater treatment plants
□ ^{25.}	Maintenance, improvement or construction of pedestrian or vehicular access corridors	52.	Floating buildings	80.	Barge fleeting areas
□ ^{26.}	Maintenance/construction of access control measures	54.	Maintenance of water control structures (dewatering units, spillways, levees)	82.	Construction of dam/weirs/ levees
27.	Restoration of sites following human use and abuse	55.	Solar panels	83.	Submarine pipeline, directional boring operations
□ ^{28.}	Removal of debris (e.g., dump sites, hazardous material, unauthorized structures)	62.	Blasting	86.	Landfill construction
29.	Acquisition and use of fill/borrow material	63.	Foundation installation for transmission support	89.	Structure demolition
31.	Stream/wetland crossings	64.	Installation of steel structure, overhead bus, equipment, etc.	91.	Bridge replacement
32.	Clean-up following storm damage	65.	Pole and/or tower installation and/or extension	92.	Return of archaeological remains to former burial sites
33.	Removal of hazardous trees/tree branches				

STEP 3) Project includes one or more activities in Table 3?

SECTION 3: REQUIRED CONSERVATION MEASURES

STEP 13) Review Conservation Measures in Table 4 and ensure those selected are relevant to the project. If not, manually override and uncheck irrelevant measures, and explain why in ADDITIONAL NOTES below Table 4.

Did review of Table 4 result in ANY remaining Conservation Measures in RED?

- NO (Go to Step 14)
- **YES** (STOP HERE; Submit for Terrestrial Zoology Review. Click File/Save As, name form as "ProjectLead_BatForm_CEC-or-ProjectIDNo_Date", and submit with project information).

Table 4. TVA's ESA Section 7 Programmatic Bat Consultation Required Conservation Measures

The Conservation Measures in Table 4 are automatically selected based on your choices in Tables 2 and 3 but can be manually overridden, if necessary. To Manually override, press the button and enter your name.

Manual Override

Check if Applies to Project	Activities Subject To Conservation Measure	Conservation Measure Description
	15, 16, 17, 18, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 45, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96	NV1 - Noise will be short-term, transient, and not significantly different from urban interface or natural events (i.e., thunderstorms) that bats are frequently exposed to when present on the landscape.
	16, 25, 26, 37, 47, 52, 62, 63, 64, 65, 70, 71, 73, 78, 80, 82, 83, 86, 91	NV2 - Drilling, blasting, or any other activity that involves continuous noise (i.e., longer than 24 hours) disturbances greater than 75 decibels measured on the A scale (e.g., loud machinery) within a 0.5 mile radius of documented winter and/or summer roosts (caves, trees, unconventional roosts) will be conducted when bats are absent from roost sites.
	16, 26, 62	NV3 - Drilling or blasting within a 0.5 mile radius of documented cave (or unconventional) roosts will be conducted in a manner that will not compromise the structural integrity or alter the karst hydrology of the roost site.
	16, 26, 62	NV4 - Drilling or blasting within 0.5 miles of a documented roost site (cave, tree, unconventional roost) that needs to occur when bats are present will first involve development of project-specific avoidance or minimization measures in coordination with the USFWS.
	15, 26, 92	HP1 - Site-specific cases in which potential impact of human presence is heightened (e.g., conducting environmental or cultural surveys within a roost) will be closely coordinated with staff bat biologists to avoid/ minimize impacts below any potential adverse effect. Any take from these activities would be covered by TVA's Section 10 permit.
	15, 26, 92	HP2 - Entry into roosts known to be occupied by federally listed bats will be communicated to the USFWS when impacts to bats may occur if not otherwise communicated (i.e., via annual monitoring reports per TVA's Section 10 permit). Any take from these activities would be covered by TVA's section 10 permit.
	23	SHF1 - Fire breaks will be used to define and limit burn scope.
	17, 23, 34	SHF2 - Site-specific conditions (e.g., acres burned, transport wind speed, mixing heights) will be considered to ensure smoke is limited and adequately dispersed away from caves so that smoke does not enter cave or cave-like structures.
	23	SHF3 - Acreage will be divided into smaller units to keep amount of smoke at any one time or location to a minimum and reduce risk for smoke to enter caves.
	17, 23, 34	SHF4 - If burns need to be conducted during April and May, when there is some potential for bats to present on the landscape and more likely to enter torpor due to colder temperatures, burns will only be conducted if the air temperature is 55° or greater, and preferably 60° or greater.
	23	SHF5 - Fire breaks will be plowed immediately prior to burning, will be plowed as shallow as possible, and will be kept to minimum to minimize sediment.
	23	SHF6 - Tractor-constructed fire lines will be established greater than 200 feet from cave entrances . Existing logging roads and skid trails will be used where feasible to minimize ground disturbance and generation of loose sediment.
	17, 22, 23, 32, 33, 34, 35, 36	SHF7 - Burning will only occur if site specific conditions (e.g. acres burned, transport wind speed, mixing heights) can be modified to ensure that smoke is adequately dispersed away from caves or cave-like structures. This applies to prescribed burns and burn piles of woody vegetation.
	17, 22, 23, 32, 33, 34, 35, 36	SHF8 - Brush piles will be burned a minimum of 0.25 mile from documented, known, or obvious caves or cave entrances and otherwise in the center of newly established ROW when proximity to caves on private land is unknown.

17, 23, 34	SHF9 - A 0.25 mile buffer of undisturbed forest will be maintained around documented or known gray bat maternity and hibernation colony sites, documented or known Virginia big-eared bat maternity, bachelor, or winter colony sites, Indiana bat hibernation sites, and northern long-eared bat hibernation sites. Prohibited activities within this buffer include cutting of overstory vegetation, construction of roads, trails or wildlife openings, and prescribed burning. Exceptions may be made for maintenance of existing roads and existing ROW, or where it is determined that the activity is compatible with species conservation and recovery (e.g., removal of invasive species).
33, 34	TR1* - Removal of potentially suitable summer roosting habitat during time of potential occupancy has been quantified and minimized programmatically. TVA will track and document alignment of activities that include tree removal (i.e., hazard trees, mechanical vegetation removal) with the programmatic quantitative cumulative estimate of seasonal removal of potential summer roost trees for Indiana bat and northern long-eared bat. Project will therefore communicate completion of tree removal to appropriate TVA staff.
33, 34	TR2 - Removal of suitable summer roosting habitat within 0.5 mile of Priority 1/Priority 2 Indiana bat hibernacula, or 0.25 mile of Priority 3/Priority 4 Indiana bat hibernacula or any northern long-eared bat hibernacula will be prohibited, regardless of season, with very few exceptions (e.g., vegetation maintenance of TL ROW immediately adjacent to a known cave).
33, 34	TR3* - Removal of suitable summer roosting habitat within documented bat habitat (i.e., within 10 miles of documented Indiana bat hibernacula, within 5 miles of documented northern long-eared bat hibernacula, within 2.5 miles of documented Indiana bat summer roost trees, within 5 miles of Indiana bat capture sites, within 1 mile of documented northern long-eared bat summer roost trees, within 3 miles of northern long-eared bat capture sites) will be tracked, documented, and included in annual reporting. Project will therefore communicate completion of tree removal to appropriate TVA staff.
33, 34	TR4* - Removal of suitable summer roosting habitat within potential habitat for Indiana bat or northern long-eared bat will be tracked, documented, and included in annual reporting. Project will therefore communicate completion of tree removal to appropriate TVA staff.
33, 34	TR5 - Removal of any trees within 150 feet of a documented Indiana bat or northern long-eared bat maternity summer roost tree during non-winter season, range- wide pup season or swarming season (if site is within known swarming habitat), will first require a site-specific review and assessment. If pups are present in trees to be removed (determined either by mist netting and assessment of adult females, or by visual assessment of trees following evening emergence counts), TVA will coordinate with the USFWS to determine how to minimize impacts to pups to the extent possible. May include establishment of artificial roosts before removal of roost tree(s).
33, 34	TR6 - Removal of a documented Indiana bat or northern long-eared bat roost tree that is still suitable and that needs to occur during non-winter season, range-wide pup season, or swarming season (if site is within known swarming habitat) will first require a site-specific review and assessment. If pups are present in trees to be removed (determined either by mist netting and assessment of adult females, or by visual assessment of trees following evening emergence counts), TVA will coordinate with USFWS to determine how to minimize impacts to pups to the extent possible. This may include establishment of artificial roosts before removal of roost tree(s).
33, 34	TR7 (Existing Transmission ROW only) - Tree removal within 100 feet of existing transmission ROWs will be limited to hazard trees. On or adjacent to TLs, a hazard tree is a tree that is tall enough to fall within an unsafe distance of TLs under maximum sag and blowout conditions and/or are also dead, diseased, dying, and/or leaning. Hazard tree removal includes removal of trees that 1) currently are tall enough to threaten the integrity of operation and maintenance of a TL or 2) have the ability in the future to threaten the integrity of operation and maintenance of a TL.
33, 34	TR8 (TVA Reservoir Land only) - Requests for removal of hazard trees on or adjacent to TVA reservoir land will be inspected by staff knowledgeable in identifying hazard trees per International Society of Arboriculture and TVA's checklist for hazard trees. Approval will be limited to trees with a defined target.
33, 34	TR9 - If removal of suitable summer roosting habitat occurs when bats are present on the landscape, a funding contribution (based on amount of habitat removed) towards future conservation and recovery efforts for federally listed bats would be carried out. Project can consider seasonal bat presence/absence surveys (mist netting or emergence counts) that allow for positive detections without resulting in increased constraints in cost and project schedule. This will enable TVA to contribute to increased knowledge of bat presence on the landscape while carrying out TVA's broad mission and responsibilities.

Project Review Form - TVA Bat Strategy (06/2019)				
	69, 77, 89, 91	 AR1 - Projects that involve structural modification or demolition of buildings, bridges, and potentially suitable box culverts, will require assessment to determine if structure has characteristics that make it a potentially suitable unconventional bat roost. If so a survey to determine if bats may be present will be conducted. Structural assessment will include: Visual check that includes an exhaustive internal/external inspection of building to look for evidence of bats (e.g., bat droppings, roost entrance/exit holes); this can be done at any time of year, preferably when bats are active. Where accessible and health and safety considerations allow, a survey of roof space for evidence of the provide potential access points and roosting opportunities. Suitable characteristics of internal features that provide potential access points and roosting opportunities. Suitable characteristics of internal features that provide potential access points and roosting opportunities. Suitable characteristics of internal features that provide potential access points and roosting opportunities. Suitable characteristics, and clean ridge beams. Features with high-medium likelihood of harboring bats but cannot be checked visually include soffits, cavity walls, space between roof covering and roof lining. Applies to box culverts that are at least 5 feet (1.5 meters) tall and with one or more of the following characteristics: Suitable culverts for bat day roosts have the following characteristics: Location in relatively warm areas Between 5-10 feet (1.5-3 meters) tall and 300 ft (100 m) or more long Openings protected from high winds Not susceptible to flooding Inner areas relatively dark with roughened walls or ceilings Crevices, imperfections, or swallow nests Bridge survey protocols will be adapted from the Programmatic Biological Opinion for the Federal Highway Administration (Appendix D of USFWS 2016c, which i		
	69, 77, 89, 91	AR2 - Additional bat P/A surveys (e.g., emergence counts) conducted if warranted (i.e., when AR1 indicates that bats may be present).		
	91	AR3 - Bridge survey protocols will be implemented, either by permittee (e.g., state DOT biologists) or qualified personnel. If a bridge is determined to be in use as an unconventional roost, subsequent protocols will be implemented.		
	69, 89	AR4 - Removal of buildings with suitable roost characteristics within six miles of known or presumed occupied roosts for Virginia big-eared bat would occur between Nov 16 and Mar 31. Buildings may be removed other times of the year once a bat biologist evaluates a buildings' potential to serve as roosting habitat and determines that this species is not present and/or is not using structure(s).		

16, 17, 18, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 48, 50, 51, 56, 61, 62, 63, 64, 65, 67, 69, 84, 89	 SSPC1 (Transmission only) - Transmission actions and activities will continue to Implement A Guide for Environmental Protection and Best Management Practices for Tennessee Valley Authority Construction and Maintenance Activities. This focuses on control of sediment and pollutants, including herbicides. Following are key measures: BMPs minimize erosion and prevent/control water pollution in accordance with state-specific construction storm water permits. BMPS are designed to keep soil in place and aid in reducing risk of other pollutants reaching surface waters, wetlands and ground water. BMPs will undertake the following principles: Plan clearing, grading, and construction to minimize area and duration of soil exposure. Maintain existing vegetation wherever and whenever possible. Minimize disturbance of natural contours and drains. As much as practicable, operate on dry soils when they are least susceptible to structural damage and erosion. Limit vehicular and equipment traffic in disturbed areas. Keep equipment paths dispersed or designate single traffic flow paths with appropriate road BMPs to manage runoff. Divert runoff away from disturbed areas. Preporde for dispersal of surface flow that carries sediment into undisturbed surface zones with high infiltration capacity and ground cover conditions. Prepare drainage ways and outlets to handle concentrated/increased runoff. Minimize length and steepness of slopes. Interrupt long slopes frequently. Keep runoff velocities low and/or check flows. Trap sediment on-site. Inspect/maintain control measures regularly & after significant rain. Re-vegetate and mulch disturbed areas as soon as practical. Specific guidelines regarding sensitive resources and buffer zones: Extra precaution (wider buffers) within SMZs is taken to protect stream banks and water quality for streams, spring, sinkholes, and surrounding habitat.<
16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 48, 50, 51, 52, 53, 54, 55, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 70, 71, 73, 76, 77, 78, 80, 81, 82, 83, 86, 87, 88, 89, 90	SSPC2 - Operations involving chemical/fuel storage or resupply and vehicle servicing will be handled outside of riparian zones (streamside management zones) in a manner to prevent these items from reaching a watercourse. Earthen berms or other effective means are installed to protect stream channel from direct surface runoff. Servicing will be done with care to avoid leakage, spillage, and subsequent stream, wetland, or ground water contamination. Oil waste, filters, other litter will be collected and disposed of properly. Equipment servicing and chemical/fuel storage will be limited to locations greater than 300-ft from sinkholes, fissures, or areas draining into known sinkholes, fissures, or other karst features.

16, 17, 18, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 69, 70, 71, 73, 76, 77, 80, 81, 82, 83, 84, 86, 87, 88, 89, 90, 91	 SPC3 (Power Plants only) - Power Plant actions and activities will continue to implement standard environmental practices. These include: Best Management Practices (BMPs) in accordance with regulations: Ensure proper disposal of waste, ex: used rags, used oil, empty containers, general trash, dependent on plant policy Maintain every site with well-equipped spill response kits, included in some heavy equipment Conduct Quarterly Internal Environmental Field Assessments at each sight Every project must have an approved work package that contains an environmental checklist that is approved by sight Environmental Health & Safety consultant. When refueling, vehicle is positioned as close to pump as possible to prevent drips, and overfilling of tank. Hose and nozzle are held in a vertical position to prevent spillage Construction Site Protection Methods Sediment basin for runoff - used to trap sediments and temporarily detain runoff on larger construction sites torm water contact with disturbed soils at construction site Protect disturbed soil areas from erosion Minimize storm water contact with disturbed soils at construction site Protect disturbed soil areas from erosion Minimize storm water contact with disturbance (>1a) Construction sites also may be required to have a storm water permit, depending on size of land disturbance (>1ac) Every site has a Spill Prevention and Control Countermeasures (SPCC) Plan and requires training. Several hundred pieces of equipment often managed at the same time on power generation properties. Goal is to Minimize fuel and chemical use Ensure proper disposal of waste, ex: used rags, used oil, empty containers, general trash, dependent on plant policy Maintain every site with well-equipped piell response kits, included in some heavy equipment Conduct Quarterly Internal Envinomental Field Assessments at each sight<
17, 22, 32, 33, 34, 35, 36	SSPC4 (Transmission only) - Woody vegetation burn piles associated with transmission construction will be placed in the center of newly established ROWs to minimize wash into any nearby undocumented caves that might be on adjacent private property and thus outside the scope of field survey for confirmation. Brush piles will be burned a minimum of 0.25 miles from documented caves and otherwise in the center of newly established ROW when proximity to caves on private land is unknown.

17, 18, 21, 22, 24, 25, 26, 30, 31, 33, 34, 35, 36, 40, 46, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 66, 67, 68, 69, 70, 72, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88, 91, 93, 95, 96	SSPC5 (26a, Solar, Economic Development only) - Section 26a permits and contracts associated with solar projects, economic development projects or land use projects include standards and conditions that include standard BMPs for sediment and contaminants as well as measures to avoid or minimize impacts to sensitive species or other resources consistent with applicable laws and Executive Orders.
21, 54	SSPC6 - Herbicide use will be avoided within 200 ft of portals associated with caves, cave collapse areas, mines and sinkholes are capable of supporting cave-associated species. Herbicides are not applied to surface water or wetlands unless specifically labeled for aquatic use. Filter and buffer strips will conform at least to federal and state regulations and label requirements.
17, 21, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 54, 55	SSPC7 - Clearing of vegetation within a 200-ft radius of documented caves will be limited to hand or small machinery clearing only (e.g., chainsaws, bush-hog, mowers). This will protect potential recharge areas of cave streams and other karst features that are connected hydrologically to caves.
16, 26, 36, 37, 38, 39, 48, 50, 52, 59, 60, 62, 66, 67, 69, 72, 75, 77, 78, 79, 86	L1 - Direct temporary lighting away from suitable habitat during the active season.
16, 26, 36, 37, 38, 39, 48, 50, 52, 59, 60, 62, 66, 67, 69, 72, 75, 77, 78, 79, 86	L2 - Evaluate the use of outdoor lighting during the active season and seek to minimize light pollution when installing new or replacing existing permanent lights by angling lights downward or via other light minimization measures (e.g., dimming, directed lighting, motion-sensitive lighting).

¹Bats addressed in consultation (02/2018), which includes gray bat (listed in 1976), Indiana bat (listed in 1967), northern long-eared bat (listed in 2015), and Virginia big-eared bat (listed in 1979).

Hide All Unchecked Conservation Measures

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Hide Table 4 Columns 1 and 2 to Facilitate Clean Copy and Paste

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○ UNHIDE

NOTES (additional info from field review, explanation of no impact or removal of conservation measures).

STEP 14) Save completed form (Click File/Save As, name form as "ProjectLead_BatForm_CEC-or-ProjectIDNo_Date") in project environmental documentation (e.g. CEC, Appendix to EA) AND send a copy of form to <u>batstrategy@tva.gov</u> Submission of this form indicates that Project Lead/Applicant:

Jeanne Fulton

(name) is (or will be made) aware of the requirements below.

- Implementation of conservation measures identified in Table 4 is required to comply with TVA's Endangered Species Act programmatic bat consultation.
- TVA may conduct post-project monitoring to determine if conservation measures were effective in minimizing or avoiding impacts to federally listed bats.

For Use by Terrestrial Zoologist Only

Terrestrial Zoologist acknowledges that Project Lead/Contact (name)		has been informed of
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any relevant conservation measures and/or provided a copy of this form.

For projects that require use of Take and/or contribution to TVA's Bat Conservation Fund, Terrestrial Zoologist acknowledges that Project Lead/Contact has been informed that project will result in use of Incidental Take and a contract trees are trees.

and that use of Take will require \$ | contribution to TVA's Conservation Fund upon completion of activity (amount entered should be \$0 if cleared in winter).